

ITP WEB PORTAL

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CERTIFICATE

We accept the work contained in the degree project report titled ‘Islamabad Traffic Police (ITP-PORTAL)’ as a conformation to the required standard for the partial fulfillment of the degree of BS (CS).

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DEDICATION

Our dedication goes to Allah who helped us in every challenge of our lives. Then this humble effort is dedicated to our respected parents, our lovely family and friends whose prayers and support helped us in the completion of this Project.

DECLARATION

We hereby declare that this Project “*Islamabad Traffic Police Portal*” has not been copied from any source. It is further declared that this project is developed entirely on the basis of personal efforts made under the guidance of our sincere supervisor and experts. No portion of the work is presented in this project has been submitted for any other degree of qualification to this or any other university or institute of learning.

Abstract

Building web applications is not like hiking. At first, it is hard. You struggle getting used to your equipment and the new terrain. Then it gets easy as you settle into a pace you like and get into a rhythm. Then it gets hard again as you tire and have to make that final push towards the finish. However, once you get there you can sit back, relax and enjoy the rewards of your efforts.

The purpose of this document is to define the features of the Islamabad Traffic Police Website. **www.ITP.gov.pk** is a government website that is operated and privately owned by Islamabad Traffic Police. The purpose of building this website is to spread Mass Awareness about road safety and traffic rules among people. One of the main reasons of building this website is to provide organization documents available to the public can be displayed on the site in an organized fashion, reducing the amount of requests in person that have to be handled by clerks and secretaries and freeing up their time for other duties.

Acknowledgement

We are highly indebted to express our gratitude for our respected supervisor Mr. Rizwan Amir because without his help, knowledgeable suggestions, encouragement and constructive criticism this work would not be possible. Thanks also go to our respected parents, our family and friends whose prayers and support helped us in the completion of this project. Last but not the least thanks to all the supporters, who helped us at different points in completion of the work. There are so many people whom we missed out for unspoken words and kind gestures made us stand where we are today. I wish to express my sincere appreciation to everyone who has contributed to my project.

Thanks to all.....

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Chapter # 1

Introduction

Chapter 1
INTRODUCTION

New trends in technology development and growing production capacity requirements insist on the need of developing quality software systems in the area of Web Development to approach level of excellence in this field. Now a days, the website represents the whole organization and become a major part of the system to represent its core values and vision statement.

Dynamic content management system (CMS) based website catering to any business, trade or occupational model. By blending simplicity, creativity with state-of-the-art technical capacity, a content management system can deliver a compact punch on your Interactive/Dynamic Online existence. With outstanding user-friendly functionalities, unlimited admin options, its Powerful Database Management System can cater to almost any business, trade, corporate or occupational online solution. Applications vary from basic Blog, Forum, Newsletter, and User Registration to high end User Interaction capacity to manage any form of data, inventory, and promotional activities.

www.ITP.gov.pk is a government website that is operated and privately owned by Islamabad Traffic Police. The purpose of building this website is to spread mass awareness about road safety and traffic rules among people and to make the Traffic system in the capital city a model of excellence. Islamabad Traffic Police is striving to fine tune its efforts to serve the Capital of Pakistan by continuously interact with the members of the community, by whatever means possible, so that it is able to get the feedback that is so important and necessary to make it responsive to community needs.

1.1 Problem Statement

The Previous Website of ITP has been vanished as its domain has been blocked. There was no backup plan so all the data has been lost. Now they need a new website by which Islamabad traffic police can spread awareness regarding road safety. Furthermore according to Terms and Conditions of The Pakistan Electronic Media Regulatory Authority (PEMRA) they want Live streaming in ITP-FM website in order to get licensed. As they don't have any FM Website they need a website for ITP-FM 92.5 as-well.

1.2 Project Overview

Website visitors can see the publicly available features such as browse pages, view all zones of ITP through Google map integration, latest events and happening, all the related information regarding driving license including online sample tests, ITP-FM 92.5 Website which includes live streaming of shows, daily and monthly show schedules, latest events and happenings as well as view other static contents of site. Organization documents available to the public can be displayed on the site in an organized fashion, reducing the amount of requests in person that have to be handled by clerks and secretaries and freeing up their time for other duties.

1.3 Project Scope and Objectives

1.3.1 Project Scope

The purpose of this website is to provide a platform to the users who are seeking help regarding Traffic police e.g. Driver licensing, License registration, spreading awareness about road safety etc. Keeping other special considerations in mind the main purpose of this website includes

- Create an integrated web site that projects a consolidated and consistent image.
- To portray image of progressive, firmly grounded organization serving the needs of the community.
- To increase visibility of our services options.
- To provide features that makes the organization's part of a member's daily functions.
- To ensure training and technical support is in place to maintain the site.
- View frequently asked questions (FAQ's)

1.3.2 Objectives

- Consistent & quality content
- Service quality standards and maintenance (be able to support what works and what doesn't)
- Reduce dependency on staff, connect people with next step or each other
- Provide easy to use and friendly interface
- Provide more self-serve features
- Promote the organization, will provide a one-stop intro of the organization's profile and its services.
- Providing satisfactory information.
- Easy to understand by all type of users.
- Promote the full advantages of organizations to customers.

1.3.3 Special Consideration

- Maintain broad age appeal
- Avoid seasonal greetings
- Build toward simplicity and professionalism
- Easy navigation
- Clearly identified options
- System to add/delete data easily(CMS)

1.3.4 Project Exclusion

Project does not include

- Maintenance and updating website
- Promotion
- Security issues after deliverance

Chapter # 2

Literature survey

Chapter 2

LITERATURE REVIEW

21st century is the era of Information Technology & Computer Science. Internet is the best source for obtaining all types of information. Internet has changed the traditional ways of information. A website consists of single or multiple pages that have a common theme. Each website is part of the World Wide Web and is identified by a unique web address usually referred to as a Uniform Resource Locator or URL. A website address or URL will usually look like this: www.yoursite.com Websites are created to inform, persuade, entertain and provide many more functions. They can represent a company, be a company or act as a vehicle for individuals to share information with others. The themes or topics that a website can be created around are infinite. When you visit a website you will likely see a resource library that has lots of articles that relate to the particular industry or topic of the website. There are actually many benefits experienced for the visitors as well as the website owner thanks to the resource library. Visitors will love the site simply for providing free information and answering their questions. This results in the visitors returning to the site on a regular basis to find out more on a particular subject. This builds trust and as trust is built, the visitor is more likely to buy a product or service from your website. An advantage of having a website is your business information and details about your products and services can be accessed by anyone, no matter where they are on the planet or what time of day it is. The internet is online 24 hours a day, 7 days a week. So even if your business isn't open your website will be!

If you have a contact form or another way for people to be able to contact you – even if it is as simple as your e-mail address on your website, then people can potentially get in contact with you, whether you're in front of a computer or not. Uniform Resource Locator (URL) is the website's address or domain name. This is where the website is located. This should be reviewed for overall content, look and feel, and general appeal of the site. Generally speaking, shorter URL's are better. A site is considered to have a strong URL if the number of characters in the address is less than twelve.

2.1 Organizational Website

An organizational website should not be confused with a blog or commercial website as it is difficult in maintaining or creating such type of website. It is intended to encompass the interests and opinions of a niche group and is created only for that purpose. Usually, this type of website is for non-profit organizations that use the site as a means of keeping its users up-to-date on activities and events.

The design of an organizational website should be straight forward as the information provided in that website is aimed to focus on a specific subject, keeping in mind that you do not deviate from your main theme of building the website. For that reason internet is a best place to find the best theme and layout that represents the color of your organization. It is also important to keep in mind that the design you provide will leave a pleasing effect on your user's and provide them as much information as they want using a single portal.

One main thing in building an organizational website is to think carefully about how material should be organized in an effective manner so that the visitors don't feel lost. A user friendly (GUI) or easy website navigation is crucial in this regard. Begin your information by arranging them in categories like

1. About Organization
2. Event and latest news
3. Photo galleries and press releases etc.

An effective organization website will keep the needs of its user by providing/containing the following elements

- Home page with organization Logo and motive
- Vision statement and about us
- Contact information
- An attractive layout combined with text and images

Also try to develop a friendly navigation screen that will help the user to find the information they want and the relevant data easily. Provide some pictures and video clips to keep the viewer interested, try to avoid adding too many irrelevant materials for which the user might get bored and left the website.

Also adding site map will help the user to navigate pages easily and keep the flow of the website smoothly instead of clicking on every page and get frustrated. Think about the targeted audience and what they will expect from the organizational website to serve. What will the readers are looking for, on your website? What else they should need in solving their problems related to your organization. The answers to these questions will, of course depend mostly on the kind of audience for which you're making an organizational website.

Chapter # 3

Requirement Analysis

Chapter 3

Requirement Analysis**3.1 Introduction:**

ITP Portal is a web based project which is specifically built for Islamabad Traffic police. The main purpose of this website is to provide the information regarding the organization including what services they are providing in the society and also the role and importance of the organization. This portal will represent the organization as a whole.

It will provide a platform to the users as well as the members of the organization to gain the related information. The website will allow them to keep in touch by consistently providing the feedback and suggestions which will help the organization to grow more professionally.

This document can be viewed by the members of Islamabad traffic police (IT Department) in order to understand the website portal as well as to get informed for their own projects documentations. The audience can also be our instructors who are helping us in developing this project. One of the important audiences of this document is the administrator of the site who is going to manage it entirely after delivering it to organization. Rest of the document contains information about introduction of project, overall description, system features, external interface requirements and other nonfunctional requirements.

3.2 Overall Description**3.2.1 Product Perspective**

The ITP organization has been established in 1994 but there is no such official platform where users and members of the organization can get the information without the help of clerks and other staff by meeting them physically. So we have tried to provide an official and online platform to the users that will help them to get information regarding the related stuff and contacting organization to get help regarding any related matter. More over the website portal will provide a platform which will keep track the record of the members of the organization.

3.2.2 Product Features

3.2.2.1 Employer Profile:

Employer profile will display about the duties of the employer where he is previously and currently designated area, how man chalans he has made, what is the nature of his/her job in the organization.

3.2.2.2 Search driving licenses:

A user can search about his license information using his license number which will help him to see what is the validity date of his/her license, how soon it is going to expire what will be the procedures in renewing the license.

3.2.2.3 Contact Information:

The user can contact the organization in case of needing any help of giving feedbacks or reporting a crime. There will be two separated contact information form, one is for giving feedbacks and contact us via E-mail and second one is for reporting a crime.

3.2.2.4 Information sharing: (Files, Videos, Photos etc):

The organization can also share different types of files like word file, power point file, text file, videos, photos etc. This information will help the user to get all the related information either providing forms which they will need in order to get licensed or driving tips video or any other information regarding road safety.

3.2.2.5 News and Press Releases:

There will also be forum and Press release pages which will help visitors to see latest events and happening in the organization and also keeping them up to date by providing latest news and alerts.

3.2.2.6 Live Streaming:

The ITP Radio FM 92.5 section will provide its user to listen live streaming of their shows via website or user can even download the previous programs from the archives so that the can never miss their favorite shows

3.2.2.7 Notifications:

The website will keep its visitors up to date by providing shows schedule, they can even get subscribed to the RSS feed so that they will receive a notification whenever a new program schedule is updated.

3.3 User Classes and Characteristics

Users	Tasks
Super Admin	Registration of members. Modify record of members. Delete members. Maintain data in the archive. Maintain the services for members. Maintain security. Add news, Picture galleries, Documentaries, Events etc. Manage Site content Add/Delete Website Data Allow members to modify information
Visitor	Search by license to get information Download files and helpful information available publically Contact organization or provide feedback Report a crime Read press releases and latest news. View pictures and videos available publically.
Member	See his Employment information. Request to add modify information. Upload useful information.

Table 3.1

3.4 Operating Environment

- Windows Operating System
- .PHP framework 5.0

Our system will deploy in the organization. It requires a high speed internet connection, a web browser like Mozilla or Internet Explorer or Google chrome for its better performance.

3.5 Design and Implementation Constraints

The issues we can face can be timing issue because there are too many features in this site but due to short duration of the project we have choose few of them which limits the overall functionality of the site, e.g. we can add testimonials and blog in our site but these features are time consuming in term of coding also they will increase the load on the site so we have avoided such features due to short duration of time.

3.6 User Documentation

With our site we will provide a user document in which all the functional and non-functional details of the site are listed which will help the administrator as well as developer to manage the site and follow the required procedures. This document will also contain information about all the components of the site.

3.7 Assumptions and Dependencies

The components on which our site will depend upon are as follows:

- The database required for maintaining records.
- Our site will get data from the ITP database so proper database connection will be required.
- As we are using the database of ITP records so we have to make it secure and update.
- As database will be updated on daily basis so the system efficiency is dependent on the load of database entries.
- User searches will also be entertained from database extractions. The users will get quick responses if our database will be managed in a way that results will be processed in seconds.
- So our system efficiency is also dependent on the database management.

3.8 External Interface Requirements

3.8.1 User Interfaces

The interface of the system will be user friendly. Registration, Searching and Super Admin CMS will design easy and simple. Master Page and CSS will make the site consistent and better look and feel.

3.8.2 Hardware Interfaces

The characteristic of hardware interferences will be consistent throughout the project. The flow of data will be maintained by connected mode and will easily accessible for users. The most frequently network communicational protocols will be used that is HTTP, FTP etc. to make communication standard better and to stay connected. The compatibility of device will also be considered that is mentioned in above section.

3.8.3 Software Interfaces

3.8.3.1 Software Interface at Client Side:

At client side any of the updated web browsers will be used to access our application from the server but Software testing is done on Microsoft Internet Explorer, Firefox and Google Chrome so it's recommended. Application will work on Windows XP, Vista or 7, 8 also Linux, UNIX and Mac.

3.8.3.2 Software Interface at Server Side:

At server side MY-SQL server and .PHP framework 5.0 should be installed for database support. Application will work on Windows XP, Vista, 7 or 8. Xampp should also be installed and activated.

3.9 Other Nonfunctional Requirements

3.9.1 Performance Requirements

Performance is the one of main requirement of any project. We are trying to achieve the best performance of the website in a way of handling traffic and organizing data in a smooth flow.

3.9.2 Response Time

Establishment of database connection should be proper to reduce the response time and provide the user a better performance. It should be as minimum as the system is intended to be a runtime system. The acceptable response time depends upon the complexity of the query but a simple query should be executed in less than a second probably in milli-seconds.

3.9.3 Reliability

Reliability of the system is concern with the accurate and efficient your system is performing any kind of task. We tried to achieve the target in search of login system and searching driving licenses that it should display the correct data according to the required search

3.9.4 Manageability

Application should be able to provide user friendly and appropriate interface to handle the day to day operations and administrative activates with ease and efficiently. That is why we have built a simple easy to use content management system where user can easily Add/delete/modify data.

3.9.5 Security Requirements

Our system will provide the security that no unauthorized people can access the database. Only the user having the validate account can access the system. To ensure the security and integrity of database Roles are assigned to specify the access to the database, Sessions are also used to authenticate the user. Administrator has complete access to database. Moreover we have sanitized the queries using different scripts and code and also disable the properties of the code so that user cannot view the code

3.9.6 Software Quality Attributes

The system we have developed is easy to load and light. Some others quality considerations that we have kept in mind are adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability will also be very seriously taken to consideration. We have also created check list to check each and every module of the project to confirm that the software is working properly.

Chapter # 4

Software Design

Chapter 4
Software Design

Design and implementation is based on using use cases, fully dressed use cases, System sequence diagram etc. It is very important for a project to design a proper flow of project along with deployment and implementation. Use cases should be properly constructed in order to create a smooth flow of software/Application design

4.1 Use Cases

USE CASE DIAGRAM FOR Login/Logout from CRM

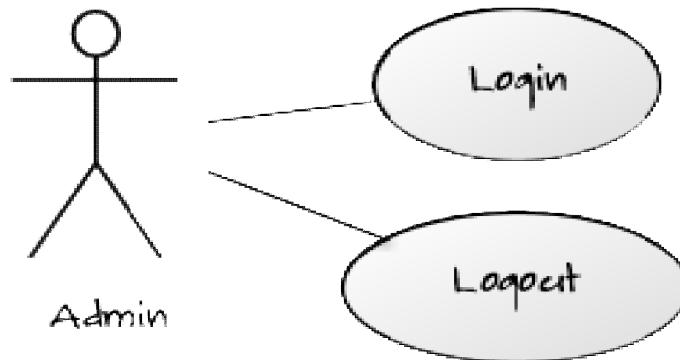


Figure 4.1 Login/Logout

The Super Admin will login to the system using a valid username and password to add/delete/modify website data/record and manage pages. If the username or password is not correct then an alert will be generated and user cannot access the content management system for any kind of modifications. Similarly after complete work the admin will then click on logout button to end its session.

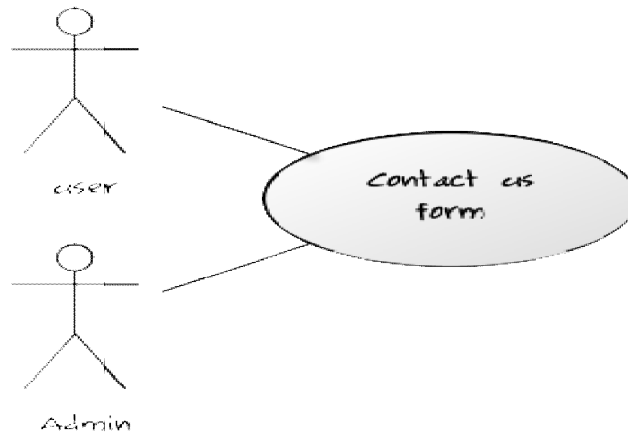
USE CASE DIAGRAM FOR Contact us

Figure 4.2Contact Us

The user will have two option of contact whether by phone or by using Email address so when a user clicks on email his/her outlook will open and he/she will be able to send mail to admin/site manager

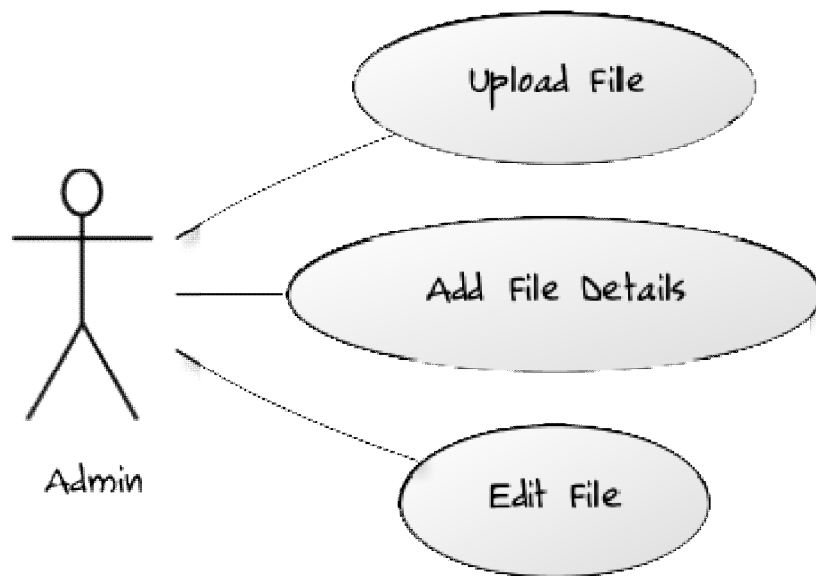
USE CASE DIAGRAM FOR Uploading Files

Figure 4.3-Upload File

Super Admin can add file using the content management system of the site. Super admin can upload a file add details of the file and modify the details of the file and re-upload. The Upload file method can only be used by Super Admin.

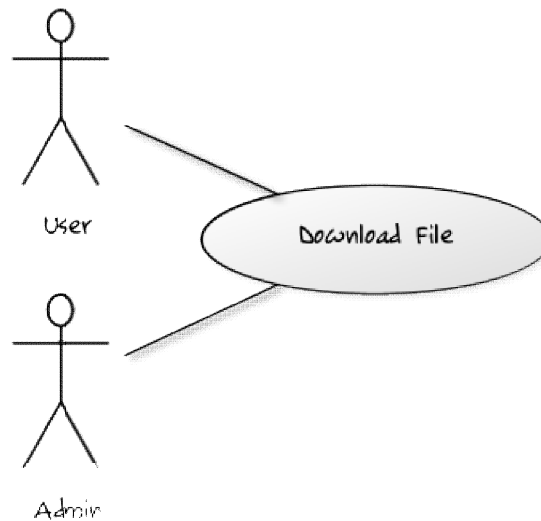
USE CASE DIAGRAM FOR downloading Files

Figure 4.4-Download File

User can view the file which Super Admin has uploaded on the site. He/She can also be able to download the file if it is in Doc format and View it online if it is in .PDF format and then download it to his/her local drive.

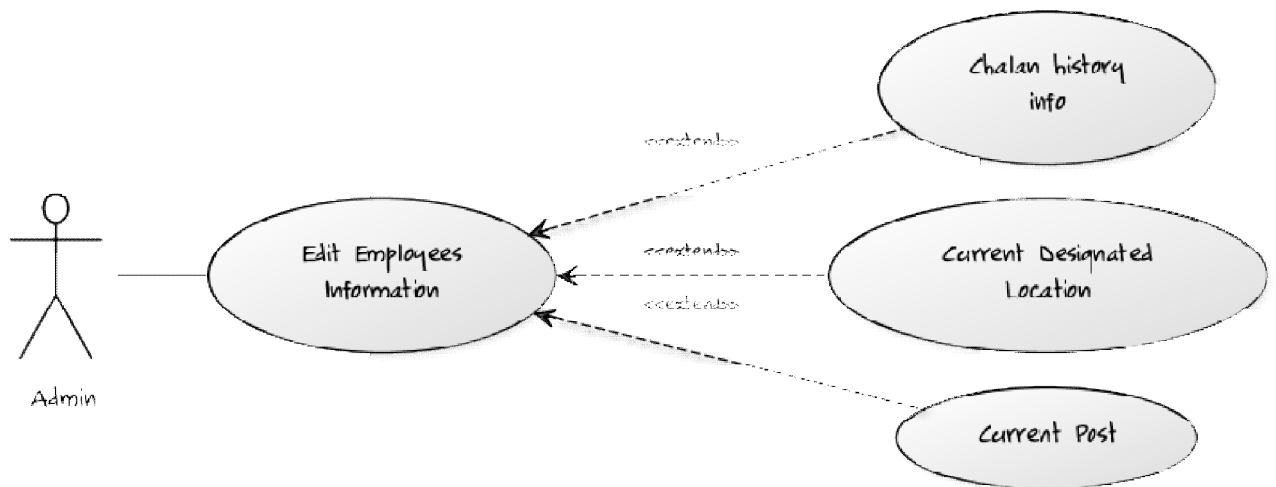
USE CASE DIAGRAM FOR Editing Employee Record

Figure 4.5-Editing Employee Record

Super Admin will have permission to add/delete/modify information or update latest data regarding employs current post or add more data in employer's profile using content management system.

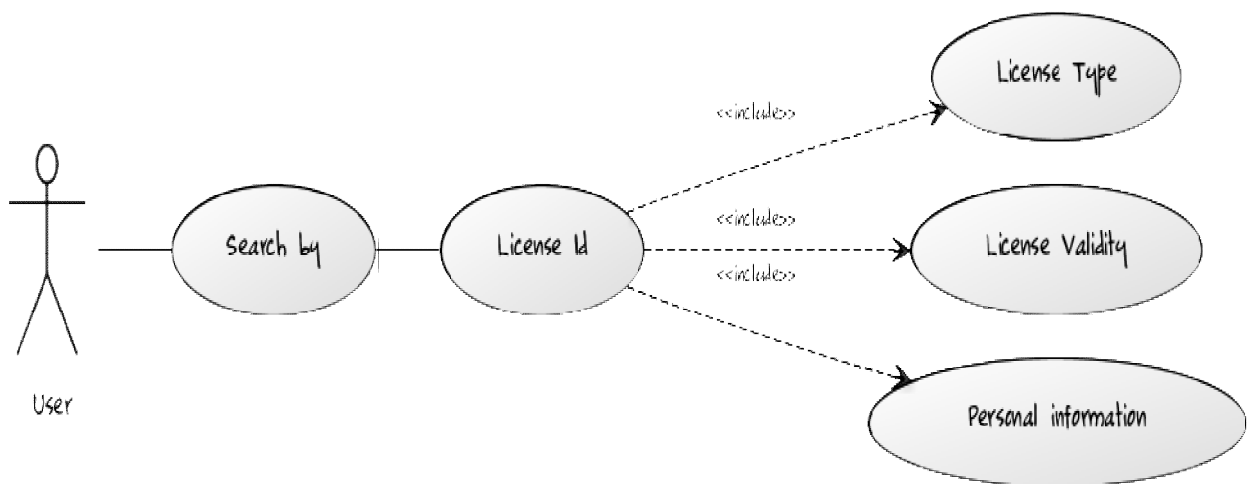
USE CASE DIAGRAM FOR Searching License Information

Figure 4.6-Searching License Information

User can search for driving license information using his/her driving license if the license number is valid and exists in database the user can see information otherwise wrong license number alert will be generated.

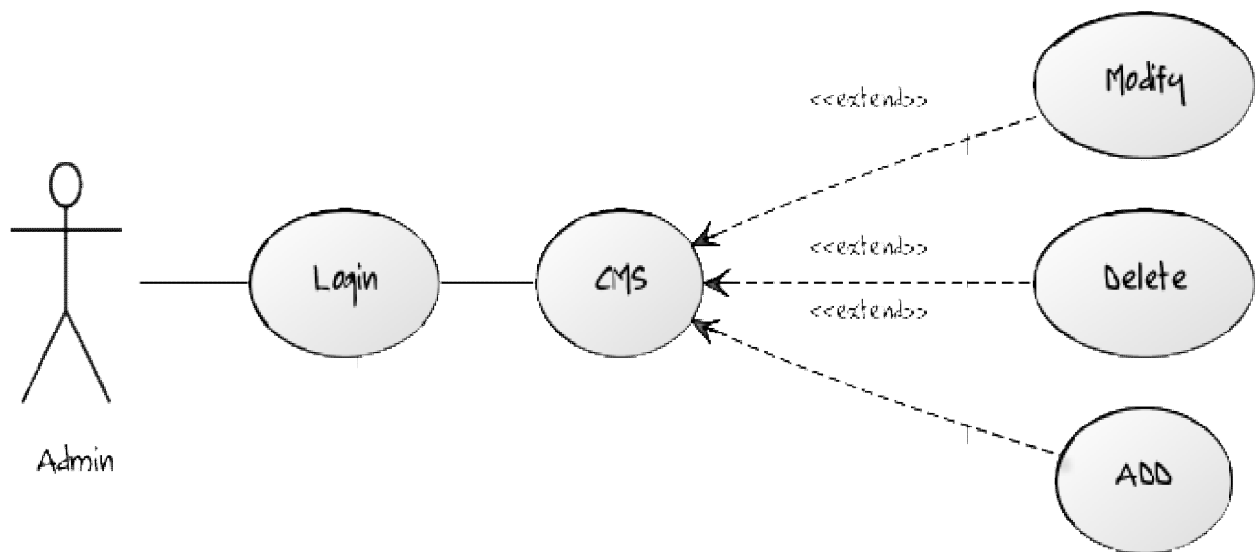
USE CASE DIAGRAM FOR Admin CMS Tasks

Figure 4.7-Admin CMS

Admin/employer will have the permission to add/delete/modify his/her profile using content management system but he has limited functionality of adding/deleting/modifying data. Admin can only access the content management system dashboard if he/she enters correct username and password and he/she is an existing employ in the organization.

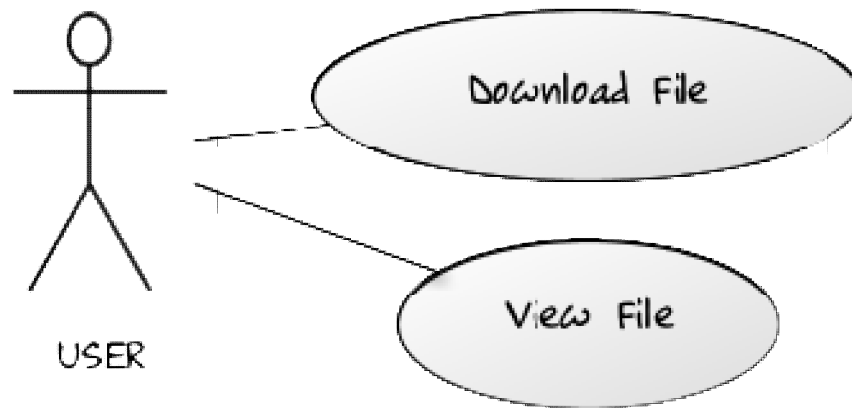
USE CASE DIAGRAM FOR Downloading a File or Document

Figure 4.8-Download File

The scenario will be for ITP FM92.4 website where user can listen music files online or download the file from the archive and view file/program information.

4.2 FULLY DRESSED USE CASES

USE CASE: Login Content management system (CMS)

This use case is about the Login of Super Admin so that they can Add Delete Modify Data on the site and can use it for other multiple purposes. This would be the primary level use case and will be used for back-end content management system CMS.

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Admin for ITP Portal
Scope	This system is specifically designed for Login for Islamabad Traffic Police back-end Content management system.
Level	Get Access for this site CMS. Maintain Detailed Info, Add Delete Modify Content etc.
Primary Actor	Super Admin (Current IT Manager).
Stakeholders and Interests	Super Admin, Admin.
Preconditions	The user must have Username and Password.
Success Guarantee	The user must enter correct Username and Password for success.
Main Success Scenario	User will get Entry in CMS on the basis of correct Username&Password.
Extensions	There is no other scenario for Login.
Special Requirements	Security, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP(Front-end) MY-SQL Database(Back-end) Internet for accessing site Any Laptop or Desktop Computer(Client Side) P4-System for deployment of system (Server Side)
Frequency of Occurrence	Only once for user(Session based)

Table 4.1

USE CASE No: 2

This use case is about the Searching of users into the site so that they can get information about their license using the system.

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Searching
Scope	This system is specifically designed for Islamabad Traffic Police Search by License for users query.
Level	User visits the system and retrieves information.
Primary Actor	Visitors (Having Islamabad Driving License).
Stakeholders and Interests	Visitors.
Preconditions	The Visitor must have Valid License no to search.
Success Guarantee	The user must enter correct License no for success.
Main Success Scenario	Visitor enters the information in the given fields. Visitor clicked on 'Search' button. System checks DB of the site and displays information.
Extensions	No other option for Searching is available for Visitors.
Special Requirements	Security, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP (Front end) My SQL Database(Back end) Internet for accessing site Any Laptop or Desktop Computer(Client Side) P4-System for deployment of system(Server Side)
Frequency of Occurrence	A few times every quarter
Miscellaneous	Site has only one option for Searching about the license info for visitor. Load on database.

Table 4.2

USE CASE No: 3

The upload File use case determines the scope and level of the File Uploading module. Through this module Super Admin can upload different types of file like word files, text files, PDF files etc. using ITP Portal CMS.

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Upload File
Scope	This system is specifically designed for Islamabad Traffic CMS uploading Module.
Level	The Super Admin click 'Upload File' link for completing desired task.
Primary Actor	Super Admin
Stakeholders and Interests	Super Admin
Preconditions	Clicked on Upload file button. Must have File.
Success Guarantee	Super Admin clicks on Upload button and system checks the validity of the file path. System Uploads that file in the specified user area.
Main Success Scenario	Desired File is Uploaded. The status of the file is shown as 'pending' or 'successful' according to the size of file and network speed.
Extensions	No other option for Uploading File. Super Admin either backs out of this use case, or tries again after rectifying the cause.
Special Requirements	Data Security and Integrity, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP(Front end) MYSQL Database(Back end) Internet for accessing site Any Laptop or Desktop Computer (Client Side) P4-System for deployment of system(Server Side)
Frequency of Occurrence	A few times every quarter
Miscellaneous	Super Admin may or may not have file to Upload. May quit during process.

Table 4.3

USE CASE No: 4

The Download File use case determines the scope and level of the File Downloading module. Through this module user can download different types of file like word files, text files, PDF files etc.

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Download File
Scope	This system is specifically designed for download module for Islamabad Traffic Police website.
Level	The user click 'Download File' link for completing desired task.
Primary Actor	Visitor
Stakeholders and Interests	Visitor.
Preconditions	Clicked on Download file button. Must have File.
Success Guarantee	User clicks on Download button and system checks the validity of the file path. System downloads that file in the specified user area.
Main Success Scenario	Desired File is Downloaded. The status of the file is shown as 'pending' or 'successful' according to the size of file and network speed.
Extensions	No other option for Download File. Visitor either backs out of this use case, or tries again after rectifying the cause.
Special Requirements	Data Security and Integrity, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP(Front end) MYSQL Database(Back end) Internet for accessing site Any Laptop or Desktop Computer (Client Side) P4-System for deployment of system(Server Side)
Frequency of Occurrence	A few times every quarter
Miscellaneous	Visitor may or may not have file to Download. May quit during process.

Table 4.4

USE CASE No: 5

The Upload Video use case determines the scope and level of the Video Uploading module. Through this module user can upload different videos of ITP he/she likes. This video could be a documentary or instructions or educational video about road safety

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Upload Video
Scope	This system is specifically designed for Islamabad Traffic Police and ITP F.M92.4 where admin can add/delete videos in .FLV format.
Level	The Super Admin click 'Add New Video' link for completing desired task.
Primary Actor	Super Admin
Stakeholders and Interests	Super Admin.
Preconditions	Must Logged into the system. Clicked on Add New Video button. Must have path of video.
Success Guarantee	When Super Admin has completed their assigned task they will submit it through. Super Admin will click the 'Add New Video' link. A new interface for video title and url is displayed. Interface asks the user to specify the title, description and the url of the video he/she wants to upload. User clicks on 'Add' button and system checks the validity of the fields. System uploads that video the specified user area and updates the database.
Main Success Scenario	Desired Video is added.
Extensions	No other option for Upload Video. Super Admin either backs out of this use case, or tries again after rectifying the cause.
Special Requirements	Data Security and Integrity, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP (Front end) MY-SQL Database(Back end) Internet for accessing site
Frequency of Occurrence	A few times every quarter
Miscellaneous	Super Admin may or may not want to add videos. May quit during process.

Table 4.5

USE CASE No: 6

This use case is about the deactivation of Visitors license / Members account. Admin can delete their data by removing their record from the system. Once a user is removed from the website, he/she can never access the data unless by Admin creates an account again.

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Delete Record
Scope	This system is specifically designed for Islamabad Traffic police Back-End/CMS for Super Admin.
Level	After successful completion of this use case the user cannot access his information on the site. It is a one-click command and user's record will be deleted from database.
Primary Actor	Visitors/Member
Stakeholders and Interests	Students, Members, Admin.
Preconditions	The User must have Registered Member of this site. Or Visitor must have valid data available on the site Super Admin logged into system. Must click on Delete Record button.
Success Guarantee	User successfully Deleted.
Main Success Scenario	Super Admin will Log In to the Site CMS. Super Admin clicked on "Delete Data" button. All information from database will be deleted.
Extensions	No other option for Delete. More than one account is not allowed for a single Member.
Special Requirements	Security, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP(Front end) My-SQL Database(Back end) Internet for accessing site Any Laptop or Desktop Computer(Client Side) P4-System for deployment of system(Server Side)
Frequency of Occurrence	Once against each Registration.
Miscellaneous	All info of user will be deleted from database. Member Cannot Log in after being deleted.

Table 4.6

USE CASE No: 7

The following use case is about logging out from the system safely. Super Admin can end his/her session by clicking on Log-out link, once Super Admin clicks on Log-out he/she will have to log in again to access the Information.

<u>Use Case Section</u>	<u>Comments</u>
Use Case Name	Log-out
Scope	This system is specifically designed for Islamabad Traffic Police Logout from the main CMS Panel
Level	After successful completion of this use case the user will safely exits from the CMS. User must have sign in to use the site CMS again.
Primary Actor	Super Admin
Stakeholders and Interests	Admin, Super Admin
Preconditions	Super Admin must Logged in to the system.
Success Guarantee	Information of the Super Admin is saved in the database. Complete Login information is maintained.
Main Success Scenario	Super Admin must Log in to the Site. Super Admin clicked on “Log-out” button. User’s session will be clear.
Extensions	Any unsafe condition occurs like power or connection failure.
Special Requirements	Security, Reliability, Consistency, Compatibility.
Technology and Data Variation List	PHP(Front end) MY-SQL(Back end) Internet for accessing site Any Laptop or Desktop Computer (Client Side) P4-System for deployment of system(Server Side).
Frequency of Occurrence	Only once for each session.
Miscellaneous	System Error Power Failure Connection Error

Table 4.7

4.3 System Sequence Diagrams

Super Admin Login/Logout:

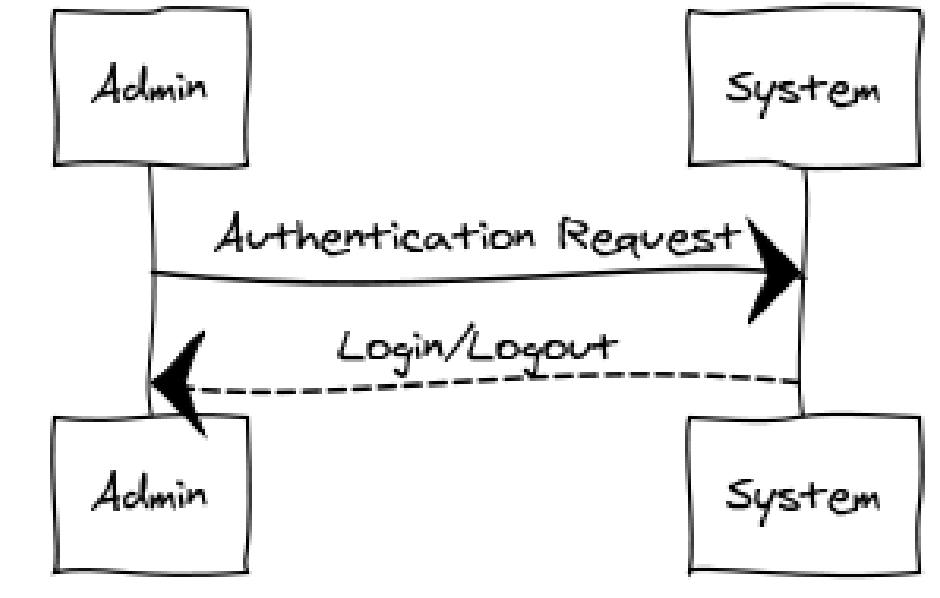


Figure 4.9 Login/Logout

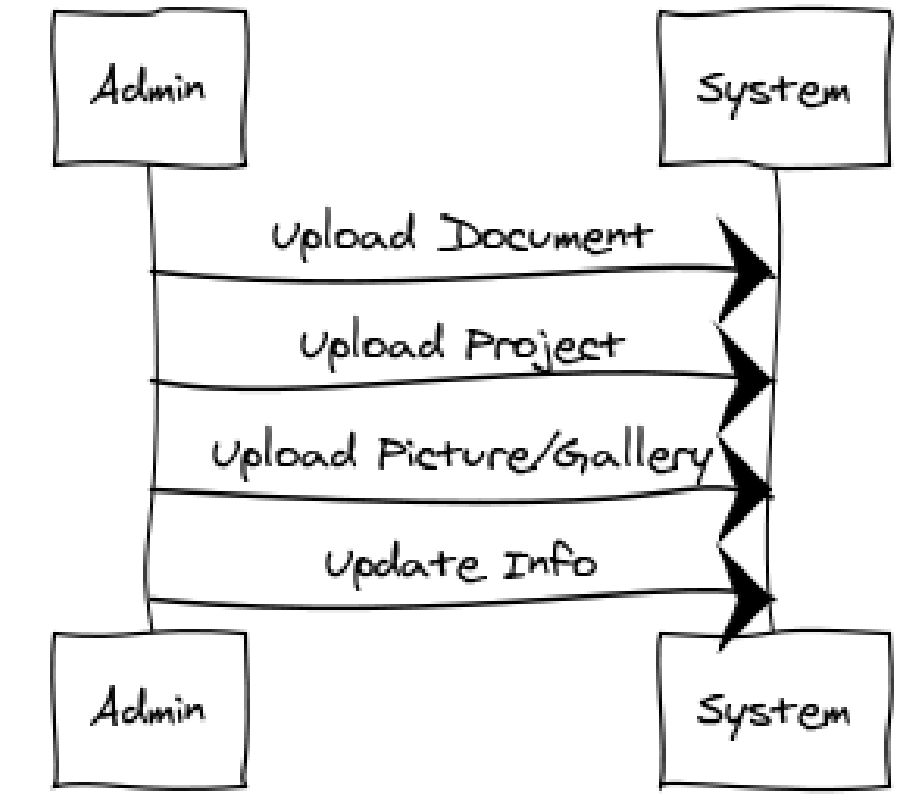
For Admin to Upload Document:

Figure 4.10 Upload Document

Super Admin Adding/Managing Content:

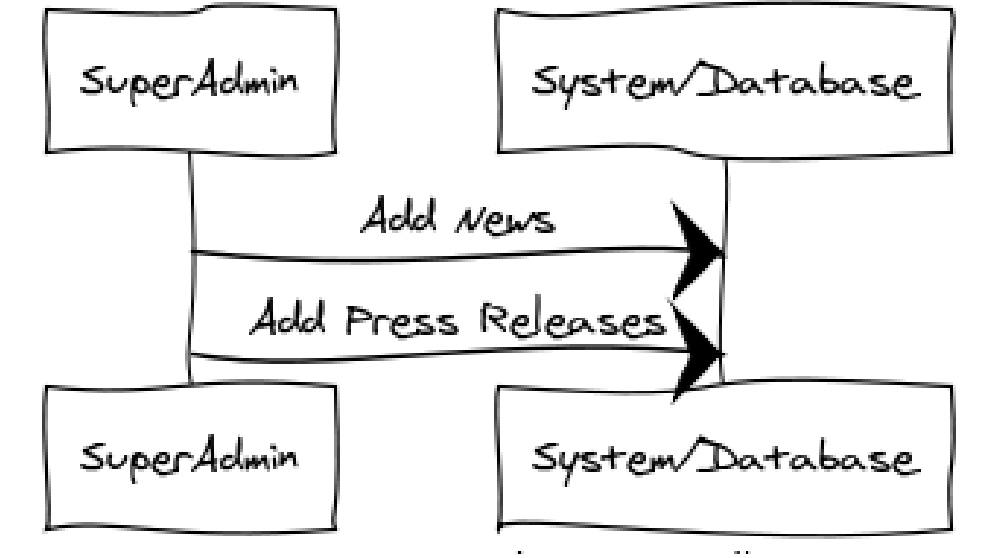


Figure 4.11 Adding Content

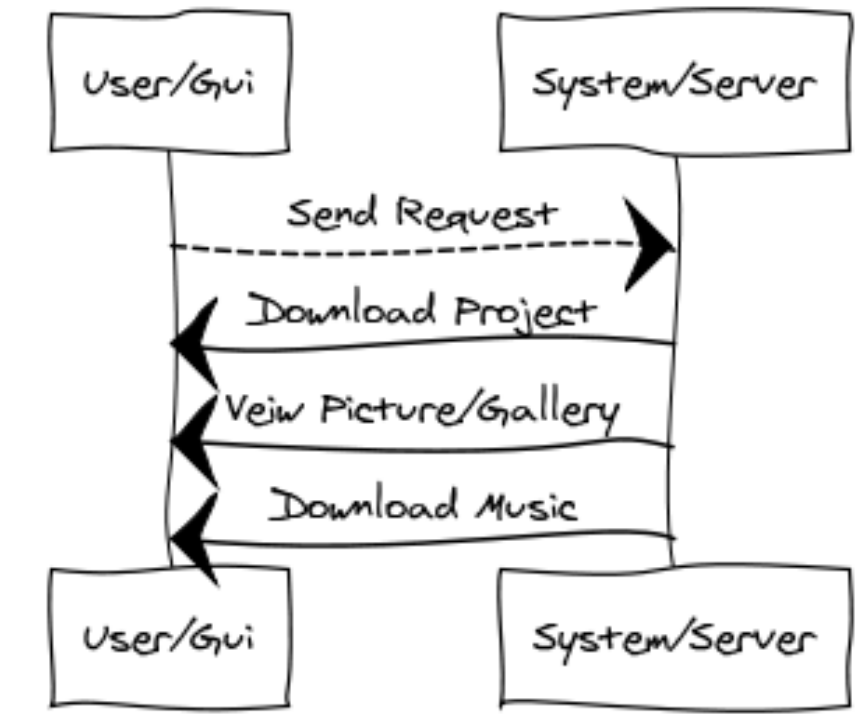
User's Viewing/Downloading Stuff from the site:

Figure 4.12 Downloading

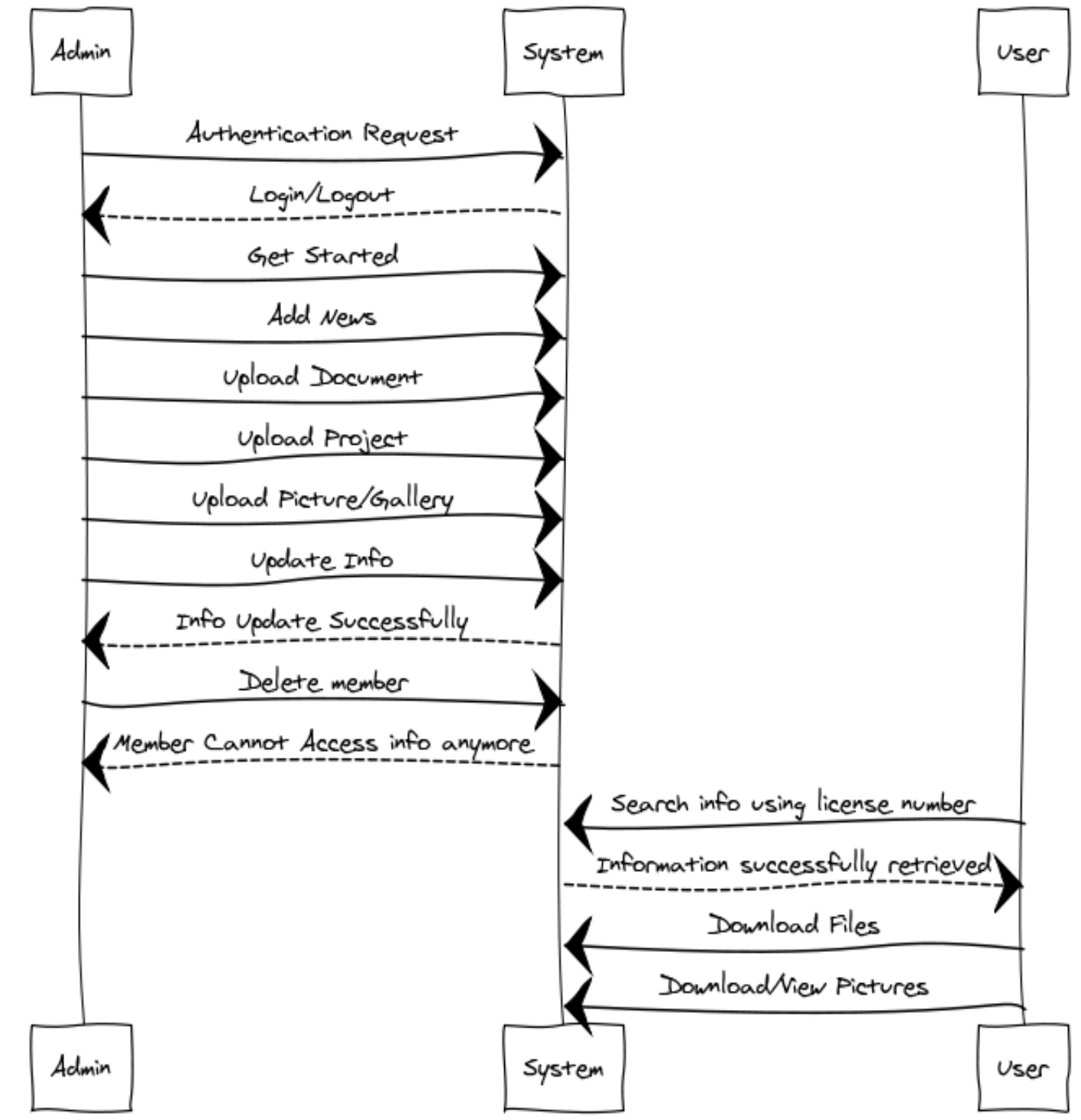
Overall System Scenario:

Figure 4.13 Overall

4.4 Operation Contracts

4.4.1: Super Admin/Admin Login:

Actors:

Administrator

Super Administrator

Pre-conditions:

Admin must have Username and Password for Login.

Faculty Member must have Employ Idto get registered.

Post conditions:

Admin Logged-in successfully.

User registered successfully by Super Admin and now has an account in the site.

Registration fails due to incorrect information.

4.4.2. Searching:

Actors:

Visitors

Members

Pre-Condition:

Searching page opens for Visitors.

Login page opens for members to login

Post Condition:

User retrieved result successfully.

Member entered correct login and password and logged in successfully.

Login fails due to incorrect Username or Password.

4.4.3: Update Info/Data:

Actors:

Super Admin

Pre-conditions:

Super Admin must have some information to update.

Post conditions:

The information is successfully updated in the database.

The information fails to update in the database due to lack to database connectivity.

4.4.4: Upload File:

Actors:

Super Admin

Pre-conditions:

Super Admin must have some file to upload.

Post conditions:

The file is successfully uploaded and is added to the files/documents section.

The file is not uploaded due to maximum upload limit facility availed.

The file is not uploaded due to exceeding file size.

The file is not uploaded due to connection error.

4.4.5: Download File/Document:

Actors:

Visitor

Pre-conditions:

Visitormust have some file to download.

Post conditions:

The file is successfully downloaded

The file is not downloaded due to maximum upload limit facility availed.

The file is not downloaded due to exceeding file size.

The file is not downloaded due to connection error.

4.4.6: Logout:

Actors:

Member

Super Admin

Pre-conditions:

User must signed-in to the site.

Post conditions:

User's session closed and he/she can no more use the site without signing in again.

4.4.7: Delete Data:

Actors:

Super Admin

Pre-conditions:

Admin must have an account/access to CMS so that he/she can Delete.

Post conditions:

The Data is successfully deleted and can be of no more use.

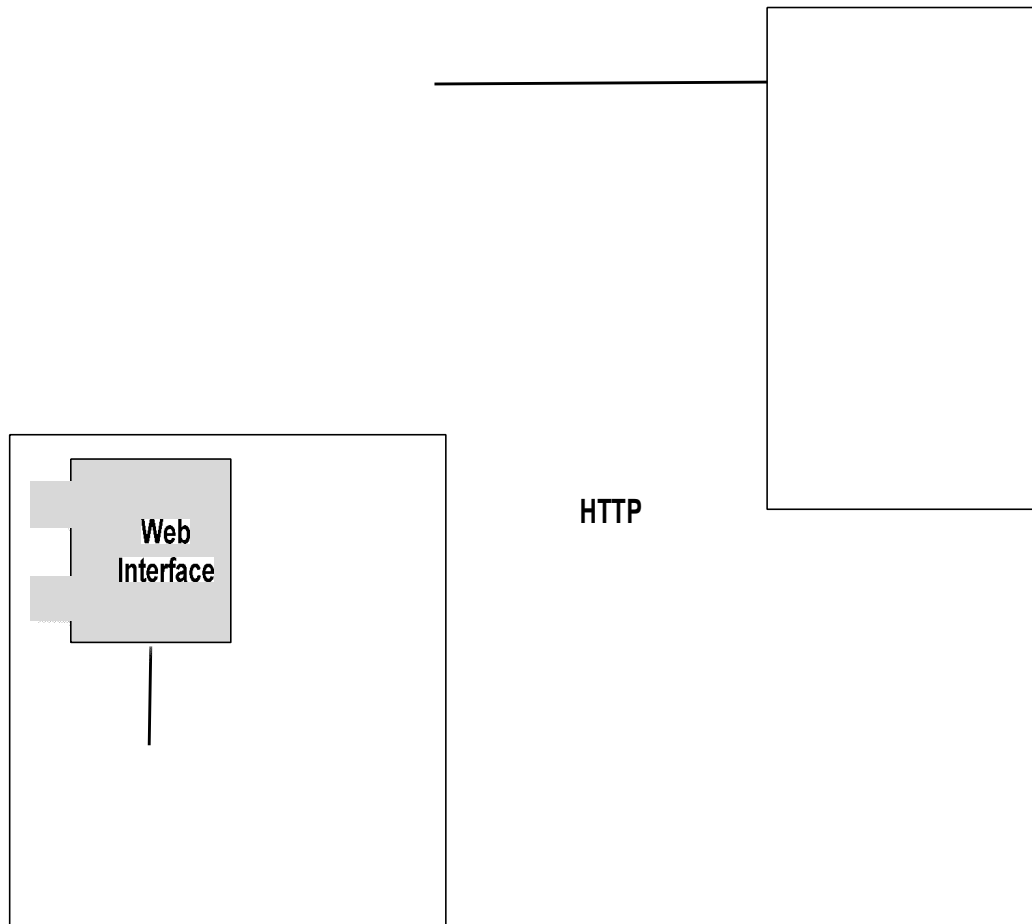
4.5 DEPLOYMENT DIAGRAM

Figure 4.10 Deployment Diagram

- 1: Client Interact with website/GUI and sent request for data they need to see.
- 2: On the backend it request will be send to server and server fetch the required data from database.
- 3: After fetching the server sends back the data to website page for displaying.

Chapter # 5

Implementation

Chapter 5

Implementation**5.1 Modules:**

The modules of our system are as follows

5.1.1 Content Management System:

This module is about making a simple Content management system by which admin can manage the site content, Add/Delete/Modify news, Events, Documents, staff information and even Add/Delete pages on the site. The Admin can add news; add documents which are useful for visitors, add/delete/manage events. The content management system will have a simple easy to use Interface. Admin can also modify staff information or add new members of the organization maintaining their record. Once Admin successfully entered Employer information in the database using CMS by clicking on add employer button, he/she gets an account through which he/she can access the site and track his record.

5.1.2 Picture Gallery:

The admin will create picture galleries and add pictures in those folders categorically. This will be done also using CMS which will provide a simple interface to admin to add/delete/modify picture galleries. Admin can also modify their albums information through Edit Album option so that he/she can change album's names and add or remove pictures from them.

5.1.3 Upload File/Picture:

Through this module users can download different files whether they are informational documents or pictures from the website. The mechanism of downloading a document is that the document itself will not be saved into the database but the complete path of the document will be saved, by doing that the database will not get heavy that helps in maintaining the efficiency of the site.

5.1.4 License Information:

License information is a module that helps users in finding their license information. This facility will help users in a great sense so that people can find when their driving license is going to be expired and how many chalans has been made on his license and from where he can get his/her license in case of latest chalan.

A user can search about his/her license information using license #:

- By using license# - User will enter his/her license# he wants to search about, then by clicking on 'Search' button the system will run a query that will fetch the data against the entered license#.

5.1.5 Live Streaming:

This module will have live streaming of ITP radio station 92.5. The user can listen ongoing live shows so that they will never miss their favorite show. Along with that user can also download previous recordings as-well form the archive. This feature will be available on ITP FM 92.5 website.

5.1.6 ITP Zones/Maps Module:

This module will have ITP zones maps by which user can see in which zone his license will be available after submitting chalan fee so that he/she can collect his/her chalan from the specified zone. This will be done by using Google maps integration. When you click on a specific zone, that zone information will be displayed including the locations of the traffic police office. This will be done using PHP and Java script modules.

5.2 Database Tables:

The following database tables are used in our application

5.2.1 Admin

<u>Column Name</u>	<u>Data Type</u>	<u>Allow Nulls</u>
Id#	Int(11)	No
login_name	varchar(100)	No
login_password	varchar(100)	Yes
login_type	Int(3)	No

5.2.2 Contents

<u>Column Name</u>	<u>Data Type</u>	<u>Auto increment</u>
Page_Id	Int(11)	Yes
Page_title	varchar(250)	No
Page_heading	varchar(250)	No
Page_content	text	No
Page_blocked	Int	No
Page_addon	date	No
Page_added by	Varchar(25)	No

5.2.3 Docs

<u>Column Name</u>	<u>Data Type</u>	<u>Allow Nulls</u>
Id	Int(11)	No
pid	Int(11)	No
Event_id	Int(11)	No
meeting_id	Int(11)	No
Doc_title	Varchar(250)	No
Doc_type_id	Int(11)	No
Doc file	Varchar(250)	No
Doc_link	Varchar(150)	No
Doc_addon	date	No
Doc_addedby	Varchar(25)	No

5.2.4 Documentary

Id	Int(11)	No
pid	Int(11)	No
Docum_title	Varchar(250)	No
Docum_type	Int(11)	No
Docum_file	Varchar(250)	No
Doc_addon	date	No
Doc_addedby	Varchar(25)	No

5.2.5 Events/Press-Releases

Id	Int(11)	No
Events_title	Varchar(250)	No
Events_type	Varchar(250)	No
Event_dtl	text	No
Doc_addon	date	No
Doc_addedby	Varchar(25)	No

5.2.6 License

License_no	Int(32)	No
First_name	Varchar(150)	No
Last_name	Varchar(150)	No
Blood_grp	text	No
License_type	Int	No
Phone_no	Int(20)	No

5.2.7 News

Id	Int(11)	No
News_title	Varchar(250)	No
News_type	Varchar(250)	No
News_desc	text	No
News_img	Varchar(250)	No
Doc_addon	date	No
Doc_addedby	Varchar(25)	No

5.2.8 Photo

Id	Int(11)	No
Img_file	Varchar(200)	No
Img_caption	Varchar(250)	No
Img_gallery	Int(11)	No
Doc_addon	date	No
Doc_addedby	Varchar(150)	No

5.2.9 Projects

<u>Column Name</u>	<u>Data Type</u>	<u>Allow Nulls</u>
Id	Int(11)	No
Proj_title	Varchar(250)	No
Proj_type	Varchar(250)	No
Proj cost	Varchar(250)	No
agency	Varchar(250)	No
Imp_agency	Varchar(250)	No
Start_date	date	No
End_date	date	No
Proj_details	text	
Doc_addon	date	No
Doc_addedby	Varchar(25)	No

5.2.10 Employ

Emp_id	Int(32)	No
First_name	Varchar(150)	No
Last_name	Varchar(150)	No
Blood_grp	text	No
Post	Varchar(150)	No
Current_designations	Varchar(150)	No
Chalana record	table	No

Chapter # 6

Software Testing

Chapter 6

Software Testing

6.1 Test Plan

Test-case specification is performed for system testing by keeping in mind several issues, which are discussed in the following subtopics

6.1.1 Introduction

This document is a high-level overview defining our testing strategy for the ITP portal (Islamabad Traffic police Website). Its objective is to communicate project-wide quality standards and procedures. It portrays a snapshot of the project as of the end of the planning phase. This document will address the different standards that will apply to the unit, integration and system testing of the specified application. We will utilize testing criteria under the white box, black box, and system-testing paradigm. This paradigm will include but is not limited to the testing criteria, methods, and test cases of the overall design. Throughout the testing process we will be applying the test documentation specifications described in the IEEE Standard 829-1983 for Software Test Documentation.

6.1.2 Test Objective

The objective of our test plan is to find and report as many bugs as possible to improve the integrity of our program. Although exhaustive testing is not possible, we will exercise a broad range of tests to achieve our goal. We will be testing our site named ITP portal utilizing a pre-order traversal format. Our user interface is designed to be user-friendly and provide easy navigation between the pages. The application will not only be used as a demonstration tool but it also provides dynamic functionalities to the user and we would like to ensure that it could be run from a variety of platforms with little impact on performance or usability.

6.2 Process Overview

The following represents the overall flow of the testing process:

- a. Identify the requirements to be tested. All the test cases shall be derived using the current Program Specification.
- b. Identify which particular test(s) will be used to test each module.
- c. Review the test data and test cases to ensure that the unit has been thoroughly verified and that the test data and test cases are adequate to verify proper operation of the unit.
- d. Identify the expected results for each test.
- e. Document the test case configuration, test data, and expected results.
- f. Perform the test(s).
- g. Document the test data, test cases, and test configuration used during the testing process. This information shall be submitted via the Unit/System Test Report (STR).
- h. Successful unit testing is required before the unit is eligible for component integration/system testing.
- i. Unsuccessful testing requires a Bug Report Form to be generated. This document shall describe the test case, the problem encountered, its possible cause, and the sequence of events that led to the problem. It shall be used as a basis for later technical analysis.
- j. Test documents and reports shall be submitted. Any specifications to be reviewed, revised, or updated shall be handled immediately.

6.3 Testing Process

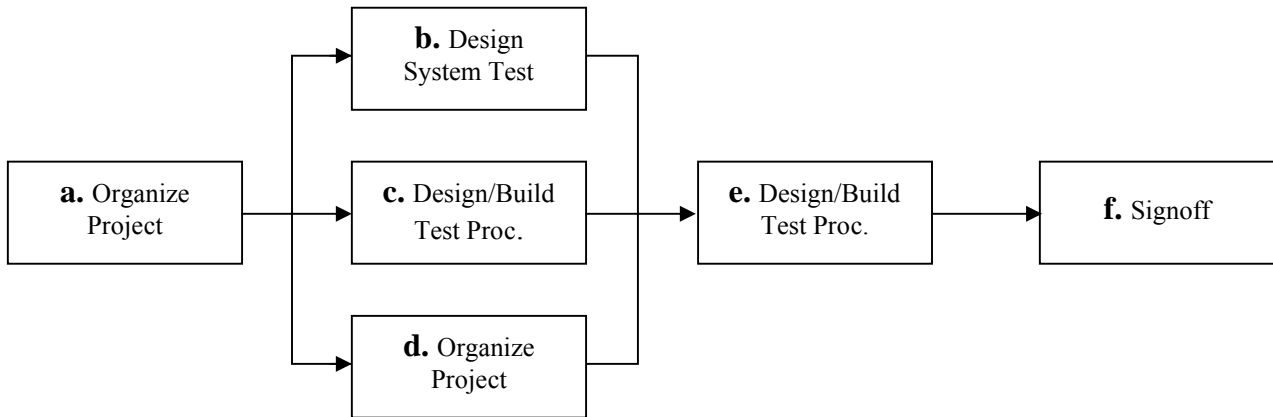


Figure 6.1 Testing process

The diagram above outlines the Test Process approach that will be followed.

- a. Organize Project** involves creating a System Test Plan, Schedule & Test Approach, and assigning responsibilities.
- b. Design/Build System Test** involves identifying Test Cycles, Test Cases, Entrance & Exit Criteria, Expected Results, etc. In general, test conditions/expected results will be identified by the Test Team in conjunction with the Development Team. The Test Team will then identify Test Cases and the Data required. The Test conditions are derived from the Program Specifications Document.
- c. Design/Build Test Procedures** includes setting up procedures such as Error Management systems and Status reporting.
- d. Build Test Environment** includes requesting/building hardware, software and data set-ups.
- e. Execute System Tests** – The tests identified in the Design/Build Test Procedures will be executed. All results will be documented and Bug Report Forms filled out and given to the Development Team as necessary.
- f. Signoff** - Signoff happens when all pre-defined exit criteria have been achieved.

6.3.1 Assigning Responsibilities

The responsibilities of the project are distributed between the Developer, Programmer, and Software Engineer.

Developer

Developer will develop all the modules and interfaces. Admin side management features will be created by the developer. He is responsible for supervising the programmer and testing the code as well. A software developer is like an architect of a building structure. He is involved in coding at times but not always.

Programmer

Someone who knows how to code and is quite comfortable in writing code in a specific language like PHP, SQL, HTML/CSS, Java etc and is equivalent to a builder or a mason who knows how to lay bricks properly.

Software Engineer

Software Engineer in IT industry is equivalent to a Structural Engineer in the building industry. He is there to supervise the entire project, manage tasks and resources and design the infrastructure or architecture of the software to design. He is not involved in coding at all but is mainly engaged in writing technical documents like SRS (Software Requirements Specifications) and analyzing the existing system and proposing a new one. A Software Engineer is also responsible for costing the total software project as well.

6.4 Testing Strategy

A testing strategy is decided for testing the system so that all modules are tested to fulfill all user requirements. A test strategy is a methodology that describes various steps that need to be performed during testing and the time and effort required for performing them. The following strategies are used for testing a social community website named Interwoven.

6.4.1 Unit Testing

Unit testing is a white-box testing techniques. The main consideration in this test is verification of all modules of the software system. Each module is unit tested, as follows:

Unit testing for the module Registration is provided with the basic requirements that are compulsory for the registration of a user.

Unit testing for the module License information is provided with three basic criteria i.e. by License no.

Unit testing for the module Uploading Images and Files is provided by uploading different types of images and text and video files.

Unit testing for the module Album Creation is done by creating many albums and adding and removing pictures to and from them.

6.4.2 Integration Testing

All modules are integrated by an incremental approach, and integration testing of the system is performed as follows:

Integrate Login module and test that the software is properly connected to the database.

Integrate Upload module and test by Uploading different types of images and files.

Integrate Album Creation and Editing module and test by creating albums and adding and removing images from them and by changing the name and cover of the albums.

Integrate Search module and test by searching license information using license number.

6.4.3 System Testing

System testing involves the set of tests that ensures that the entire system performs according to specifications.

6.4.3.1 Recovery Testing

ITP portal has developed a fault-tolerant system, keeping in mind all specifications and requirements from users. As a result, there are minimum chances of faults.

6.4.3.2 Security Testing Several security checks has been included in the system. The system requires a Login ID and Password to initiate. The password is in encrypted form so that hackers cannot make an unauthorized access to user's accounts.

6.4.3.3 Performance Testing All unit modules has been tested successfully. The integration of these unit modules produces reports in the required format. Therefore, now the software fulfills all requirements of Project Management.

Tested By:	MajidPervaiz
Test Type	Input, Output and Verification Tests
Test Case Number	01
Test Case Name	Login CMS
Test Case Description	In Login module Admin will loginto CMS to add/delete/modify content of the site
Item(s) to be tested	
1	Does the given username and password of the admin exists in the system's database or not.
2	Does admin gets a successful registration or not.
Specifications	
Input	Expected Output/Result
Admin enters his/her login information into the Login form.	<ul style="list-style-type: none"> • Successful Login. • Unsuccessful Login.
Procedural Steps	
1	The user will fill all the fields of the Login form.
2	He/she will then submit the form.

Table 6.1: Login CMS Test Case

Tested By:	MajidPervaiz	
Test Type	Input, Output and Verification Tests	
Test Case Number	02	
Test Case Name	Login employer	
Test Case Description	In Login employer module the employer will log in to the application and can perform different activities including viewing their record.	
Item(s) to be tested		
1	Does the member have an account or not.	
2	Whether the provided member name and password are correct.	
Specifications		
Input		Expected Output/Result
Member enters correct user name and password in the respected fields.		Member logs in to the system.
Procedural Steps		
1	Member enters his/her user name and password.	
2	The given user name and password will then be matched in the database.	
3	If the user name and password are correct then the Member will logged in to the site otherwise gets a failure message.	

Table 6.2: Login Member Test Case

Tested By:	QasimUmer	
Test Type	Input, Output and Verification Tests	
Test Case Number	03	
Test Case Name	Find License Information	
Test Case Description	<p>In license information module, the user will search for specific license info. A user can search for information by available criteria</p> <ol style="list-style-type: none"> 1. License Number 	
Item(s) to be tested		
1: Searching by License No.		
Specifications		
Input	Expected Output/Result	
User enters the Licensenumber in the search textbox.	If the License exists then his/her data should be displayed.	
Procedural Steps		
1	User will click on 'Find' link.	
2	User will there enter the License number he/she wants to find.	
4	If the searched found successfully then system will display his/her data along with name and some other information otherwise a failure message will be displayed.	

Table 6.3: Search License Information Test Case

Tested By:	MajidPervaiz	
Test Type	Input, Output and Verification Tests	
Test Case Number	04	
Test Case Name	File Upload	
Test Case Description	The Admin can upload files that will be saved to the different file section. User can upload text file, PDF files, zip files, video files etc.	
Item(s) to be tested		
1	File Size.	
2	File Type.	
3	Is file uploaded successfully?	
Specifications		
Input		Expected Output/Result
Admin will browse the file.		File should be uploaded.
Procedural Steps		
1	Admin clicks on Upload File link.	
2	Admin will browse the file.	

Table 6.4: File Upload Test Case

Tested By:	Ali Hamza Malik	
Test Type	Input, Output and Verification Tests	
Test Case Number	05	
Test Case Name	Album Creation	
Test Case Description	Admin can create albums with respect to different occasions or events. Admin can add pictures into the album or delete the pictures and Album as whole. Admin can also make editing and view the albums.	
Item(s) to be tested		
1	Creation of albums with distinct names.	
2	Addition of pictures into the album.	
3	Deletion of pictures from the album.	
4	View album.	
5	Edit album.	
6	Delete album.	
Specifications		
Input		Expected Output/Result
<ul style="list-style-type: none"> • Admin will create an album. • Admin will upload a picture into the desired album. • Admin will select a picture and delete it from the album. • Admin will select Edit Album option to edit the album name. 		<ul style="list-style-type: none"> • Album should be created. • Picture should be added in the selected album. • Selected picture should be deleted. • Editing should be made successfully.

<ul style="list-style-type: none"> Admin will delete any album. 	<ul style="list-style-type: none"> Selected album should be deleted.
Procedural Steps	
1	Admin will click on Create Album link.
2	Admin will enter the name of the album and click on OK button.
3	Admin can upload an image and add it into any album.

Table 6.5: Album Creation Test Case

Tested By:	MajidPervaiz	
Test Type	Input, Output and Verification Tests	
Test Case Number	06	
Test Case Name	Logout	
Test Case Description	Admin can log out from the system by simply clicking on Logout link.	
Item(s) to be tested		
1	The Logout link	
Specifications		
Input		Expected Output/Result
Admin just clicks on Logout link		Admin should be logged out from the system
Procedural Steps		
1	Admin will simply click on Logout hyperlink.	
2	Admin will be logged out from the system.	

Table 6.6:Logout Test case

6.5 Test Case Execution Log

A testing strategy is decided for testing the system so that all modules are tested to fulfill all user requirements. A test strategy is methodology that describes the various steps that need to be performed during testing and the time and effort required for performing them. The following strategies are used for testing a website named ITP portal.

Test Case ID	Test Input	Expected Result	Actual Result
01	Admin Username/Password	Admin Must log in to the CMS.	Admin Logs in
02	Username & Password	Employee must log in to the system	Employee logs in
03	Information of the user to be searched	If user exists then it must be displayed otherwise a did not found message should be displayed	If the user with specified information exists then it displays otherwise a message displays
05	Album creation	Album must be created with the specified name	Album created
04	Upload Document	Admin added the document into specified target	document uploaded
06	Logout	User must logged out from the system	User logged out

Table 6.7

6.6 Bug Reports

YOUR COMPANY'S NAME **Mj& Co.** PROBLEM REPORT# **01**
 PROGRAM **ITP (CMS Login)** RELEASE **1st** VER **1.0**
 REPORT TYPE (1-6) Coding **Issue** SEVERITY (1-3) Serious ATTACHMENTS **No**
 1. Coding issue 4. Documentation 1. Fatal
 2. Design issue 5. Hardware 2. Serious
 3. Suggestion 6. Query 3. Minor

PROBLEM SUMMARY: **At the time of LoginAdmin's data does not load from the database properly**

CAN YOU REPRODUCE THE PROBLEM? **No**

REPORTED BY **MajidPervaiz** DATE **07/09/2012**

ITEMS BELOW ARE FOR USE ONLY BY THE DEVELOPMENT TEAM

FUNCTIONAL AREA **CMS Login** ASSIGNED TO **Mr. MajidPervaiz**

COMMENTS: **Bugs has been removed**

STATUS (1-2) Closed

1. Open 2. Closed

RESOLUTION (1-9) Fixed

RESOLUTION VERSION 00

1. Pending 4. Deferred 7. Withdraw by reporter
 2. Fixed 5. As designed 8. Need more info
 3. Irreproducible 6. Can't be fixed 9. Disagree with suggestion

RESOLVED BY **Mr. MajidPervaiz** DATE **09/09/2012**

RESOLUTION TESTED BY **Mr. Ali Hamza** DATE **10/09/2012**

TREAT AS DEFERRED **No**

YOUR COMPANY'S NAME **MJ & Co.** PROBLEM REPORT# **02**
 PROGRAM **ITP (Searching License data)** RELEASE **1st** VER **1.0**
 REPORT TYPE (1-6) Query SEVERITY (1-3) Serious ATTACHMENTS **No**
 1. Coding issue 4. Documentation 1. Fatal
 2. Design issue 5. Hardware 2. Serious
 3. Suggestion 6. Query 3. Minor

PROBLEM SUMMARY: **While Searching there is a problem in retrieving data for the specified user**

CAN YOU REPRODUCE THE PROBLEM? **No**

REPORTED BY **QasimUmer** DATE **13/10/2012**

ITEMS BELOW ARE FOR USE ONLY BY THE DEVELOPMENT TEAM

FUNCTIONAL AREA **Searching for license data** ASSIGNED TO **Mr. MajidPervaiz**

COMMENTS: **Problem has been resolved**

STATUS (1-2) **Closed**

1. Open 2. Closed

RESOLUTION (1-9) **Fixed** RESOLUTION VERSION **00**

1. Pending 4. Deferred 7. Withdraw by reporter
 2. Fixed 5. As designed 8. Need more info
 3. Irreproducible 6. Can't be fixed 9. Disagree with suggestion

RESOLVED BY: **Mr. MajidPervaiz** DATE: **24/10/2012**

RESOLUTION TESTED BY: **QasimUmer** DATE: **25/10/2012**

TREAT AS DEFERRED **No**

YOUR COMPANY'S NAME Mj& Co. PROBLEM REPORT# 03

PROGRAM ITP Portal (Upload Images) RELEASE 1st VER 1.0
 REPORT TYPE (1-6) Coding Issue SEVERITY (1-3) Fatal ATTACHMENTS No
 1. Coding issue 4. Documentation 1. Fatal
 2. Design issue 5. Hardware 2. Serious
 3. Suggestion 6. Query 3. Minor

PROBLEM SUMMARY: In image uploading module there was a problem regarding the repeated names of the pictures uploaded by Admin

CAN YOU REPRODUCE THE PROBLEM? No

REPORTED BY: Ali Hamza DATE: 11/12/2012

ITEMS BELOW ARE FOR USE ONLY BY THE DEVELOPMENT TEAM

FUNCTIONAL AREA Upload Images ASSIGNED TO

Mr.MajidPervaiz COMMENTS: Problem has been resolved

STATUS (1-2) Closed

1. Open 2. Closed

RESOLUTION (1-9) Fixed RESOLUTION VERSION 00

1. Pending 4. Deferred 7. Withdraw by reporter
 2. Fixed 5. As designed 8. Need more info
 3. Irreproducible 6. Can't be fixed 9. Disagree with suggestion

RESOLVED BY: Mr. MajidPervaiz DATE: 05/01/2013

RESOLUTION TESTED BY: Ali Hamza DATE: 09/01/2013

TREAT AS DEFERRED No

YOUR COMPANY'S NAME **Mj& Co.** PROBLEM REPORT# **04**
PROGRAM **ITP Portal(Login)** RELEASE **1st** VER **1.0**
REPORT TYPE (1-6) **Coding Issue** SEVERITY (1-3) **Serious** ATTACHMENTS **No**

1. Coding issue	4. Documentation	1. Fatal
2. Design issue	5. Hardware	2. Serious
3. Suggestion	6. Query	3. Minor

PROBLEM SUMMARY: **When Admin clicks on Logout link the system did not remove the session of the Admin completely, one can enter Admin's account by clicking Back button**

CAN YOU REPRODUCE THE PROBLEM? **No**

REPORTED BY **QasimUmer** DATE **13/01/2013**

ITEMS BELOW ARE FOR USE ONLY BY THE DEVELOPMENT TEAM

FUNCTIONAL AREA **Login** ASSIGNED TO **Mr. MajidPervaiz**

COMMENTS: **Problem has been resolved**

STATUS (1-2) **Closed**

1. Open 2. Closed

RESOLUTION (1-9) **Fixed**

RESOLUTION VERSION **00**

1. Pending	4. Deferred	7. Withdraw by reporter
2. Fixed	5. As designed	8. Need more info
3. Irreproducible	6. Can't be fixed	9. Disagree with suggestion

RESOLVED BY: **Mr. MajidPervaiz** DATE: **18/01/2013**

RESOLUTION TESTED BY: **QasimUmer** DATE: **19/01/2013**

TREAT AS DEFERRED **No**

Chapter # 7

Conclusion & Future Work

Chapter 7

CONCLUSION & FUTURE WORK**7.1 Achievements**

We feel very proud after development and implementation of our final project ITP PORTAL (An organizational Website) successfully. Before developing this project although we have a good theoretical knowledge of software engineering, being the students of computer science, but it is far away from theory to develop a real world system that completely fulfills the user requirements. Due to these requirements our concepts were polished by documenting our whole project. After making complete documentation of our project we experienced and learned almost all the concepts of JavaScript's and PHP4.0/5.0. Also before starting our project, we had just basic level knowledge of coding in java and PHP, HTML/CSS and we had a little idea of working in PHP4.0, so learning PHP4.0 was a very good and nice experience and now we have enough command on PHP5.0 and HTML/CSS that we can develop an application in it easily. We have also learnt about JQuery which is fast, concise JavaScript Library, it minimizes the huge code in few lines and also it is easier and elegant. Similarly we have learnt about HTML5 and JQuery.

During the development of the project we have achieved the following benefits.

- Project management and scheduling
- How to interact with the user
- System analysis and data collection
- A good knowledge of system designing and modeling
- Latest tools and technologies like HTML/CSS and PHP.
- Testing strategies
- User documentation
- MY-SQL Database System

During the modeling phase we have learnt Rational Rose and Smart Draw for UML. In testing and implementation, finding a bug and its fixture was totally new and healthy experience. One of the very important aspects of the project was how to document our project properly. We have learnt new tools PHP4.0, HTML/CSS SQL Server 2005 and Adobe Photoshop which will help us a long way as we will be starting our careers as IT professional.

7.2 Limitations

We have developed ITP Portal CMS (An Organizational Website content management system) only for the IT Manager of ITP but not for the Employees and its members and also it was a requirement of final semester project. So keeping in view the software requirements of the members of Islamabad Traffic Police (ITP) have developed this application.

The project may lack some elegance or sophistication but we are very proud that we have worked in a highly versatile environment and we have taken right steps toward right direction in terms of where the technology is going nowadays. The design of the project is simple and flexible and changes can easily be implemented to this project.

7.3 Future Work

ITP Portal (An Organizational Website) is a complete website with many of the latest features to make it more versatile, like we are providing the CMS, Live Streaming and Map service to the Organization but in future we have planned to provide Complete E-licensing and other facilities to its visitors for providing more ways of communication. Moreover we also have decided to add module for other Staff members of the Organization so that they can also interact in different ways and can make announcements or share different materials that are helpful.

Appendix-A User Guide



ITP Administrator Login



Welcome to ITP

Use a Valid username and password to gain access to the administration console

Login

Username:

Password:

Login

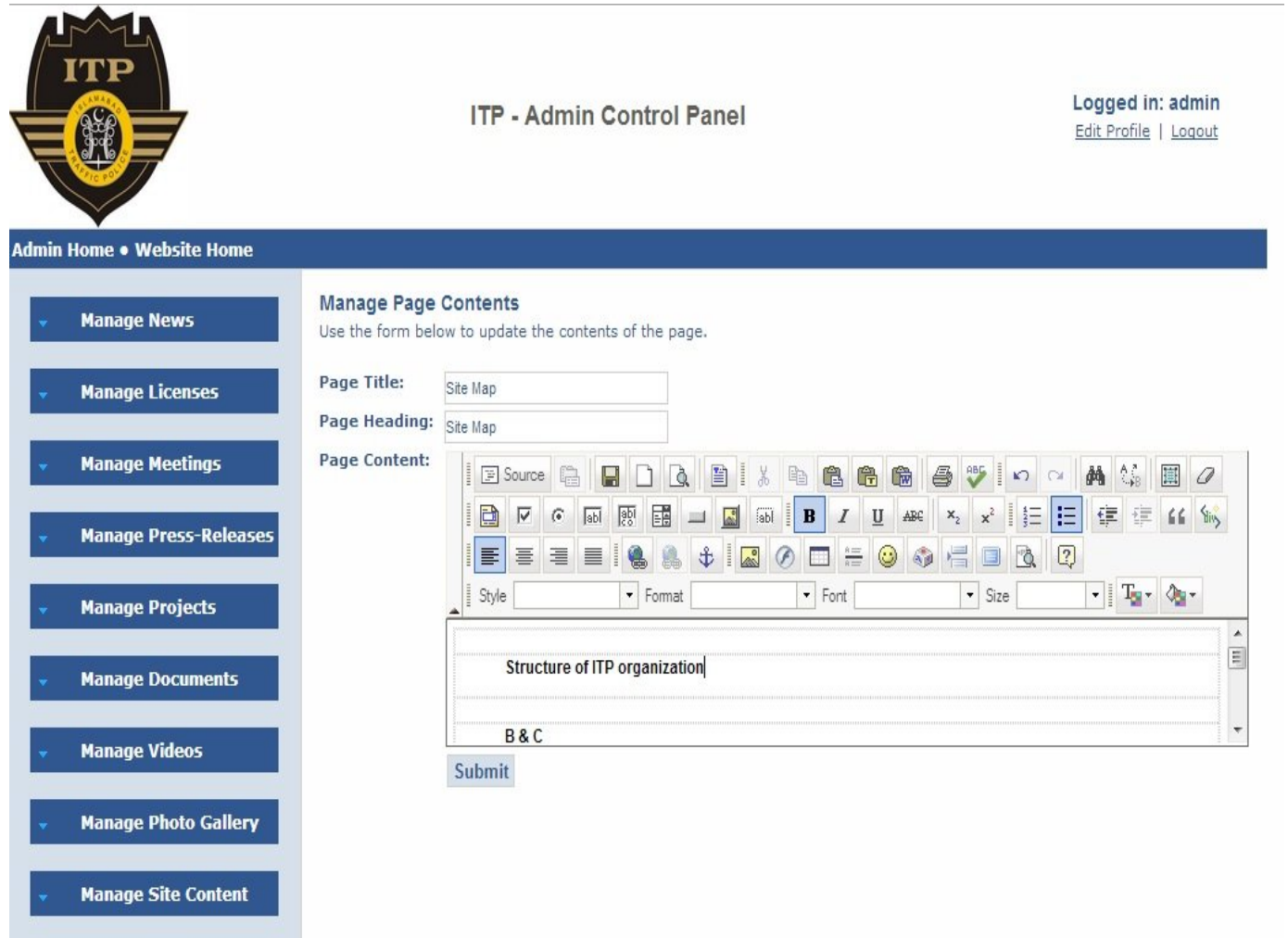
FigureA.1 Login

This will be the Main Login screen of CMS through which Admin can access the CMS and Manage Site Content. To access Admin should have a valid Username and Password to Verify his/her identity whether he/she is authorized person or not. In case of incorrect Username and Password an alert will be generated showing invalid username or password.



FigureA.2 CMS

Once the user is logged in with a valid username and password this screen will appear which is main page of CMS using this page admin can manage Site content and Add/Delete/Modify License information as well as employees data. Whether admin has to add news or create new image galleries all management will be done using this user friendly CMS.



The screenshot displays the ITP Admin Control Panel interface. At the top left is the ITP logo. The page title is "ITP - Admin Control Panel". The user is logged in as "admin" with links for "Edit Profile" and "Logout". A navigation menu on the left includes options like "Manage News", "Manage Licenses", "Manage Meetings", "Manage Press-Releases", "Manage Projects", "Manage Documents", "Manage Videos", "Manage Photo Gallery", and "Manage Site Content". The main content area is titled "Manage Page Contents" and includes a form for updating page content. The form fields are: "Page Title" (Site Map), "Page Heading" (Site Map), and "Page Content" (Structure of ITP organization). A rich text editor toolbar is visible above the content field, and a "Submit" button is at the bottom.

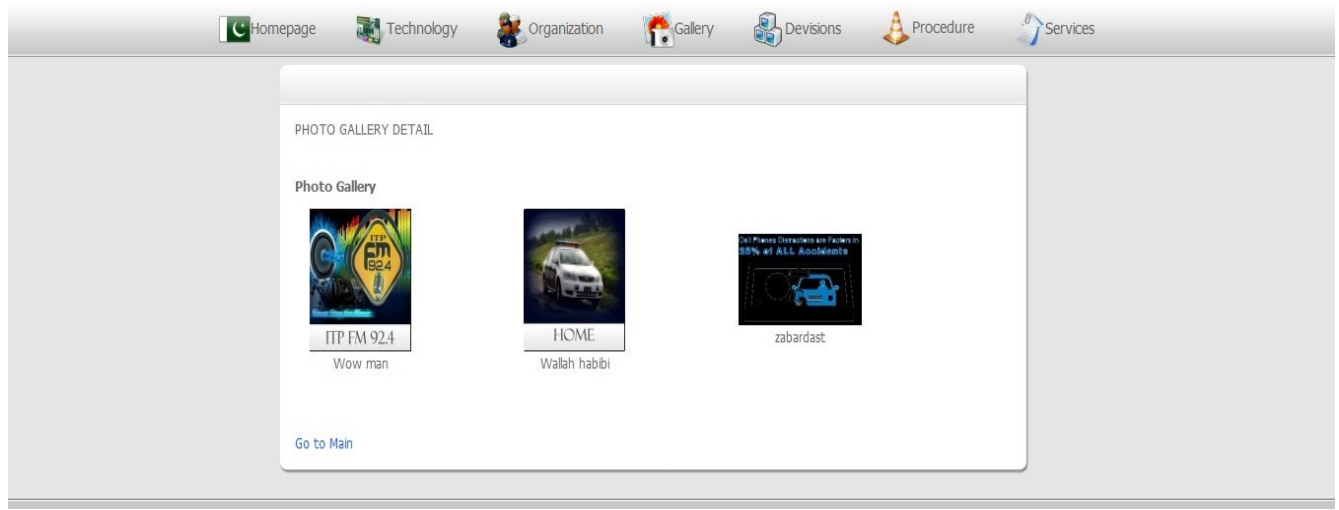
FigureA.3 FCK editor

This is the FCK Plugin which is being embedded with the content management system. Using this plugin super admin can easily manage (Add/Delete/Modify) site content as FCK editor has lot of functionalities. User can add links/images/buttons and even source code for the site page. So overall this plugin provides a broad functionality and easy to use interface.



FigureA.4 Main Page

This will be the Home page of the site which user will first see while entering the URL in browser tab. This page will be having several subpages and useful links which displays all site content including news alerts and ITP-FM 92.5 Website link.



FigureA.5 Gallery

This is the image gallery where all images will be displayed after filtered through image gallery categories. Each category/folder will have different images and when we click on any of the folder its images will be called from database dynamically using folder id.



FigureA.6 ITP-FM Page

The page/website is created for Islamabad traffic police radio station which purpose is to spread road safety and special announcements using live streaming. Not only that this section of ITP will have its own image gallery and press releases also the latest program schedule and news will be displayed so that user can stay up to dated.

Appendix-B

REFERENCES & BIBLIOGRAPHY

References

- <http://www.datatables.net/my-sql> (accessed: Mar-14-20:45PST) 2012
- <http://jquery.com/lightbulb> (accessed: July-19-16:45PST) 2012
- <http://www.codeproject.com/pagination> (accessed: Oct-28-04:05PST) 2012
- <http://ajaxcontroltoolkit.codeplex.com/j-plugin> (accessed: Dec-18-22:45PST) 2012
- <http://jqueryui.com/demos/accordion/simplescript> (accessed: Dec-29-11:45PST) 2012
- <http://www.json.org/j-br> (accessed: Nov-14-09:45PST) 2012
- <http://javascript.internet.com/mousehover> (accessed: Jan-06-19:03PST) 2013
- <http://www.w3schools.com/js/default.asp> (accessed: Jan-11-20:15PST) 2013
- <http://www.connectionstrings.com/theta> (accessed: May-13-19:45PST) 2012
- <http://www.techremedy.net/blog/2011/07/get-a-paginated-grid-of-results-using-phpmysql/>
(accessed: Mar-17-10:45PST) 2012
- <http://php.net/manual/en/index.php> (accessed: Nov-19-06:45PST) 2012
- <http://dev.mysql.com/doc/12> (accessed: Jan-14-20:45PST) 2013
- <http://www.freshdesignweb.com/php-tutorial-and-examples-for-beginners.html>
(accessed: Jan-24-10:45PST) 2013
- <http://css-tricks.com/php-for-beginners-building-your-first-simple-cms/>
(accessed: Jan-14-20:45PST)2013

Bibliography

- Website Valuation Report by Idea Software 2012
- Creating Websites Bible 3rd Edition Philip Crowder with David A. Crowder
- SQL All in One for Dummies Allen G. Taylor
- How to do everything using PHP and MY-SQL VikramVaswani
- PHP for Dummies JannetValade
- Step by Step Html5 FaitheWempen
- The complete Reference: HTML and CSS 5th Edition