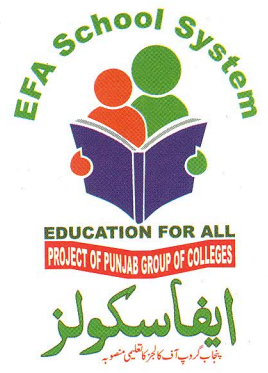


CERTIFICATE**DEVELOPMENT OF WEB-PORTAL OF EFA SCHOOLS****Submitted for fulfillment of****MSP-631 Primavera Lab Project****Degree: master of Science in Project Management****Session: 2014-2016****Bahria University Lahore campus****By****Danish Munir****Interview Panel****Mr. Muhammad Faisal Shahzad**

Mr. Fareed Zafar

تعلیم ہر بچے کیلئے EFA School System

NO Child Left Behind-Project of Punjab Group of Colleges



CERTIFICATE

This witness statement is issued to the applicant for the fulfillment of his/her MS (Project Management) program requirements being carried out at Bahria University Lahore Campus (BULC).

It is witnessed that **Mr. Danish Muneer** Enrollment: **03-298142-010** MSPM-III Semester: **Fall 2015** has contacted / visited / frequently utilized our premises / participated in our real-time projects for implementing project management skills using Primavera P6 as a leading software tool.

He, in case of participation in organization's project, have contributed fully / partially in the following project(s) and within the highlighted fields (planning, scheduling, earned value analysis, performance monitoring, claim debugging)

Implementation of Web-Portal of EFA Schools

He, in case of visiting / frequently utilized premises, has been found skillful in applying Primavera P6 in the following highlighted fields (planning, scheduling, earned value analysis, performance monitoring, report generation).

Additionally, it is noteworthy to mention that **Mr. Danish Muneer** demonstrated good ethical practices, enthusiastic approach to work, task convergence capabilities, professionalism while they stay / connection with this organization.

Certified By Company Official:

Verified By Trainer:



Mr. Imran Aslam
(Project Manager EFA Schools)

Mr. Faisal Shahzad
Trainer - BULC

PREFACE

This report is implementation of Primavera on Development of Web-Portal of EFA Schools which is under process.

We would like to thank our friends and teachers without their support and help we would never be able to achieve our goals

ACKNOWLEDGEMENT

“Praise is to Allah, who hath guided us to this: never could we have found guidance had it not been for guidance of Allah” (Qur’an 7:43)

To make any project guidance and references are very essential, without which project is incomplete. We are highly indebted to **Muhammad Faisal Shahzad, Bahria University Lahore Campus** for his guidance and constant supervision as well as for providing necessary information regarding the project & also for their support in completing the project.

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals, including university management and staff. I would like to extend my sincere thanks to all of them.

I would like to express my gratitude towards our Parents for their kind co-operation and encouragement which helps me in completion of this project. I am also obliged to the people who willingly helped me out with their abilities.

ABSTRACT

This report is based on the implementation of Primavera in an organization to show the benefit and ease that can be provided to an organization. The result and outcome of having the primavera in handling a project successful are shown. Having all the important concepts of Management under one umbrella like Gantt charts, S curves, Schedules, activities cost and managing the resources of the project in Primavera P6.

Implementation of Web-Portal of EFA Schools



EFA School System

No Child Left Behind: Project of Punjab Group of Colleges

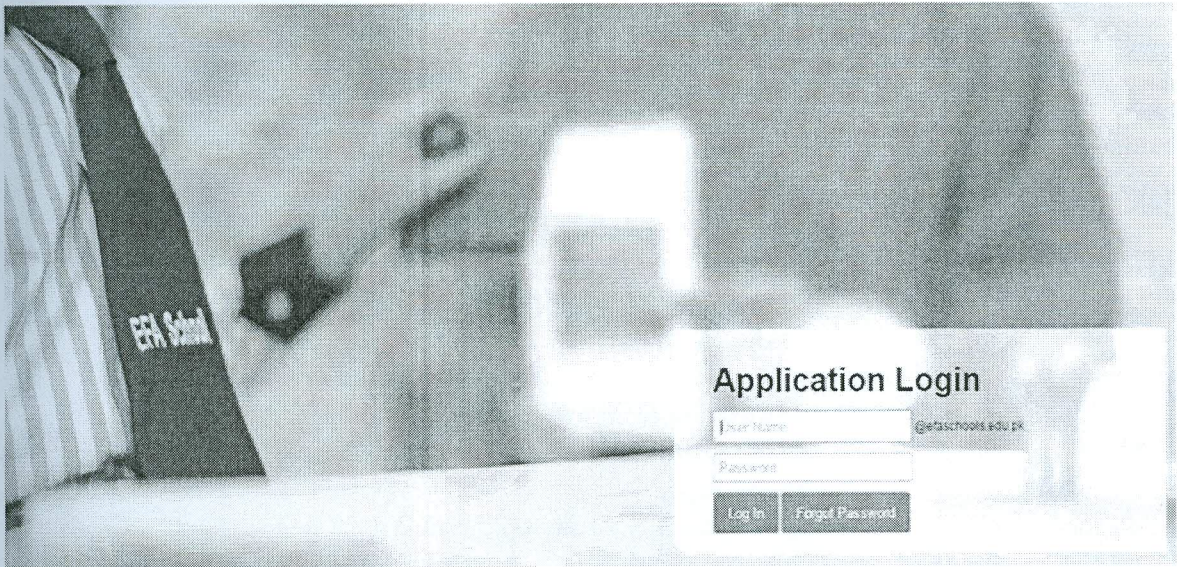


Table of Contents

Chapter 1

1. Project Management.....	6
2. Organizational behavioral structure.....	8
3. Enterprise project structure.....	9
4. Work break down Structure.....	10
5. Earned Value.....	11
6. S Curve.....	15

Chapter 2

7. Comparison.....	18
--------------------	----

Chapter 3

8. Introduction of the Organization.....	21
a. Mission Statement.....	21
b. Core Values	21
c. Organization Work Breakdown Structure(OBS).....	23
d. Business Drivers.....	24
e. Project History.....	24
f. Problem With Current System.....	24
g. Scope of New System.....	25
h. Functional Decomposition.....	26
i. Introduction of PMO.....	26
j. Project Charter.....	27
k. Hardware and Software Specification.....	28
l. Tools and Technology with Reasoning.....	28

Chapter 4

m. Implementation.....	36
------------------------	----

Chapter-1

A. Project Management

- i. A clear and accurate project definition is critical to the success of a project. The definition process consists of setting clearly defined objectives, determining the key success criteria and evaluating the risks involved. The final outcome should be a Project Definition document, sometimes referred to as a Project Charter.

The **Project Definition** should include a statement of the **business need** that the project aims to address and a description of the product, service or other deliverables that will be its **output**. It can be constructed by asking a series of questions:

- What is the purpose, or project mission, i.e. the reason for doing the project?
- What are the goals, i.e. what targets does the project aim to achieve.
- What is the scope of the project, i.e. how will the organization gain?
- What are the quality standards and performance criteria?
- What are the measurable objectives of the project?
- What are the key success criteria?
- What are the project deliverables?
- What are the project constraints, e.g. time, resources, performance criteria?
- What risks are involved?

The project definition process produces the information needed to begin constructing a **Project Plan**.

ii. Task

A **task** is an activity that needs to be accomplished within a defined period of time. Tasks are generally pieces of work that require effort and resources and have a concrete outcome or deliverable. In theory a task can be of any size. Indeed, a project could be regarded as a very large task.

iii. Resource

Resources can be defined as the personnel, equipment, materials and services required to complete tasks in a project.

- **Personnel** are the people employed to the organization to work on a project or task.

- **Equipment** is the machinery allocated to the project, whether mechanical or electronic, e.g. engineering machines, computers.
- **Materials** are the property that may be included in or attached to a deliverable or consumed or expended in performing a task. They include assemblies, components, parts, fuels and lubricants, raw and processed materials, and small tools and supplies.
- **Services** are areas where labor is expended without producing a tangible commodity, e.g. accounting, secretarial or legal services.

iv. **Schedule**

A **schedule** is a timeline of events and activities which can be used as an operating timetable. It can be presented on a calendar framework or on an elapsed time scale and specifies the occurrence, times of events and the relative start and finish times of activities.

The schedule specifies the timing and sequence of tasks within a project, as well as the project duration. It consists mainly of tasks, dependencies among tasks, durations, constraints and time-oriented project information.

A display of project time allocation, in the form of milestones, deliverables, activities or Gantt charts, is often referred to as the **project schedule**.

v. **Risk Analysis and Risk Management**

A **risk** is an event, which is **uncertain** and has a **negative impact** on some activity.

Risk analysis is the process of quantitatively or qualitatively assessing risks. It involves estimating both the uncertainty of the risk and its impact.

Risk management is the use of risk analysis to devise management strategies to reduce risk.

In project management, these techniques are used to address the following questions:

- Will the project go over schedule? (Schedule Risk)
- Will the project overrun its budget? (Cost Risk)
- Will the output of the project fail to satisfy the goals? (Performance Risk)

At the beginning of a project and throughout its duration, the answers to these questions are unknown, but a 'yes' answer to any of them is obviously undesirable. Each of these elements should therefore be subjected to a **risk analysis**, to help project managers decide whether the project is in danger of failing to meet its commitments and whether or not anything can be done to improve the project's chances of success.

vi. Schedule Risk

Schedule risk is the risk that the project takes longer than scheduled. It can lead to cost risks, as longer projects always cost more, and to performance risk, if the project is completed too late to perform its intended tasks fully. Apart from the cost estimation and resource allocation used in CPM, most of the techniques used in quantitative cost risk analysis are different from those used in schedule risk analysis.

The **Critical Path Method (CPM)** is a similar project planning and management technique which also uses a network representation. Earlier versions did not try to estimate probability distributions for task durations, making it easier to derive the critical path, i.e. the set of tasks that determined the final project length. Various enhancements were made to CPM to allow alternative resource allocations to be explored, within specified cost constraints.

The increasing availability of computing power allowed led to the inclusion of probability distributions for task durations in CPM.

vii. Cost Risk

Cost risk is the risk that the project costs more than budgeted. It can lead to performance risk if cost overruns lead to reductions in scope or quality. Cost risk can also lead to schedule risk if the schedule is extended because not enough funds are available to complete the project on time.

The main technique used for cost analysis of complex projects is based on the **Work Breakdown Structure (WBS)** which organizes project tasks into hierarchical stages or phases.

WBS is a project management technique for defining and organizing the total scope of a project using a hierarchical tree structure. The first two levels, known as the **root node** and **Level 2**, define a set of planned outcomes representing the entire project scope. At each subsequent level, the children of a parent node represent the entire scope of their parent node.

A well-designed WBS describes planned outcomes instead of planned actions. Outcomes are the desired ends of the project and can be predicted accurately, whereas actions make up the project plan and may be difficult to predict accurately. A well-designed WBS makes it easy to assign any project activity to one and only one terminal element of the WBS.

B. Primavera

i. Organizational Breakdown Structure (OBS)

OBS is the hierarchical structure used to depict the organizations structure on the software. The Organizational Breakdown Structure (OBS) defines how people within a company are organized and what rights and access they have within projects. For example, a company that builds ships may have different facilities, with different staff at each facility. Yet certain functions such as the executive team or IT support may

span the different facilities. The OBS reflects the chain of command within the company. It can often mirror the EPS, but the two may also diverge. The specific OBS elements may be a mix of specifically named people, business units, departments, and specialties. The OBS and EPS are interconnected such that the OBS can be used to apply security roles and access all projects.

ii. Enterprise Project Structure (EPS)

The EPS is the outsider's view of your company, showing your lines of business. The EPS is laid out in a tree structure. A construction company may have an EPS tree with only two nodes: Development, for work on existing sites and Construction, for new sites. Or an oil company may split their work first between Natural Gas and Heavy Oil. The structure may be broken down further. For example, Heavy Oil may be broken down into Primary, Cold EOR, and Thermal. The idea is that all projects under an EPS node share common characteristics and may be managed by the same team. (Fig 1.1)

a. EPS in Primavera

1. Choose Enterprise from menu bar, then Enterprise project Structure.
2. Click on the EPS name column where we want to add a new element.
3. Click on the Add button.
4. Type Name and ID of the
5. EPS node & in resource Manager Field, select OBS element for new element.
6. Hierarchy can be changed by using arrow keys.
7. Close the EPS window, go to Enterprise then Projects and specify the project details of budget, resources and dates etc.

Fig 1.1

iii. Creating Project in Primavera

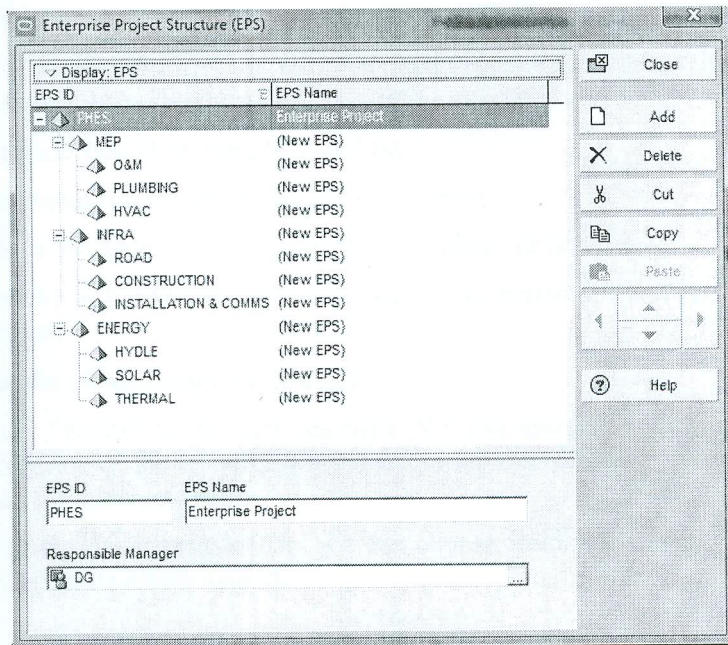
1. Go to File in the menu bar, and select new.
2. Select EPS in Create New Project window.
3. Enter Project ID & Project Name.
4. Click on Finish Window to create a new Project.

iv. Work Breakdown Structure (WBS)

Within a project, activities can be grouped, filtered, planned, and organized by Work Breakdown Structure (WBS). The WBS classifies all of the deliverables of a project and is often formed into a hierarchy with an increasing level of detail. How WBS is defined varies by company and by project, but having a well-planned WBS is a key first step to implementing good project controls.

a. WBS in Primavera

1. Click on Project from menu bar, Select WBS.
2. Select Add from the command bar, or right click or insert from the keyboard to add a new level on the WBS.



3. Use arrow keys for adjustments.
4. Close the WBS window.

v. Roles in Primavera

1. Click on Enterprise from menu bar, and then select Roles.
2. Click Add button to add roles.
3. Enter Role ID and role Name.
4. Hierarchy can be adjusted by using arrow keys.
5. In description detail window, type description of Role's Responsibility.
6. Click on Prices Tab to add price of each Role
7. Click on Rate type field to enter the Rate.
8. Click on Role Limits tab to enter the limit of Each Role.
9. Click Add to insert unit/time for the role over time.
10. In Effective date/time field, double click and select date from Calendar.
11. In Maximum Units/Time field, click and type maximum work units per time for each role.
12. Close the window after Assigning Roles.

vi. Resources

- C. First enable New Resource Wizard by clicking on Edit button from menu bar, select User Preferences access the "Assistance" tab & then check the box to enable the wizard.
- D. Go to Project from menu tab, and then select Resource Assignments or Select Resources from Directory bar.
- E. Click Add button on the command bar.
- F. Enter Resource ID and Name and Click Next.
- G. Specify the type of resource (labor, non-labor, or material).
- H. Enter the unit price, default units per day & maximum units per day for the new resource.
- I. Enter the office telephone & email.
- J. Assign "Roles" to the new resource. We can assign multiple roles, identify the proficiency of the resource when performing the role, and designate the "Primary Role" for the resource.
- K. Select the resource calendar. We can choose from a list of existing calendars or we can create a new calendar.

L. Identify whether to “auto-compute actual” for the resource.

M. Enter information for the Progress Reporter.

i. Resource Security

Resource security allows the administrator to restrict your resource access by assigning you to a node in the resource hierarchy. That node is your root node. Once assigned to a resource node, you have access only to your root node and all of its children. In the Resource Assignments window you still have access to current project resources even if they are outside your root node.

ii. Earned Value

Earned value project/performance management (EVPM) is a project management technique for measuring project performance and progress in an objective manner. It has the ability to combine measurements of the project management triangle:

- Scope
- Schedule, and
- Costs

In a single integrated system, Earned Value Management is able to provide accurate forecasts of project performance problems, which is an important contribution for project management. **Primavera P6** has the functionality to measure project performance according to cost and schedule using Earned Value measurement techniques.

a. Steps to Calculate Earned Value in Primavera

1. Add Activities, Tie Logic, Set Percent (%) complete to Physical.
2. Add Resource Assignments.
3. Maintain Baseline and Assign to Project.
4. Customize Columns for Analysis.
5. Update Physical Percent (%) complete.
6. Update Resource Actual units (Or Expenses).
7. Schedule Project, Advance Data Date.
8. Analyze Earned Value.

b. Actual Cost (ACWP)

Actual Cost (ACWP) is the actual total cost incurred on the activity as of the project data date. ACWP is the same as the Actual Total Cost.

- $ACWP = Actual\ Labor\ Cost + Actual\ Non-Labor\ Cost + Actual\ Material\ Cost + Actual\ Expense\ Cost$

c. Budget at Completion (BAC)

This is always the Total cost from the Baseline, calculated using the Baseline Budgeted Values or Baseline At Completion values depending upon the 'Earned Value Calculation' setting (Admin, Admin Preferences, Earned Value).

If the 'Earned Value Calculation' is set to 'Budgeted Values with Planned dates' or 'Budgeted Values with Current Dates':

- $BAC = BL\ Budgeted\ Labor\ Cost + BL\ Budgeted\ Non-Labor\ Cost + BL\ Budgeted\ Material\ Cost + BL\ Budgeted\ Expense\ Cost.$

If the 'Earned Value Calculation' is set to 'At Completion Values with Current Dates':

- $BAC = BL\ at\ Completion\ Labor\ Cost + BL\ At\ Completion\ Non-Labor\ Cost + BL\ At\ Completion\ Material\ Cost + BL\ At\ Completion\ Expense\ Cost.$

d. Cost Performance Index (CPI)

A CPI greater than 1 means that Earned Value is greater than the actual amount spent. A CPI of less than 1 means that the Earned Value is less than the actual amount spent.

- $CPI = EV / Actual\ Cost$

e. Cost Variance (CV)

Cost Variance is the difference between the Earned Value and the actual cost of that activity.

- $CV = EV - Actual\ Cost$

f. Earned Value Cost (BCWP or EV)

Earned Value Cost (EV) is the portion of the budgeted total cost of the activity that is actually completed as of the project data date. Also known as the Budgeted Cost of Work Performed for the activity. The method for computing the performance percent complete depends on the Earned Value technique selected for the activity's WBS.

- $EV = BAC * Performance\ \% \ Complete$

g. Estimate at Completion (EAC)

EAC is the estimated cost at completion for the activity.

- $EAC = Actual\ Cost + ETC.$

h. Estimate to Complete (ETC)

Estimate to Complete is the estimated cost left to complete on the activity. The calculation can be customized at the WBS level (On the 'Earned Value' tab in the WBS view).

It can be computed as either:

- $ETC = Remaining\ Total\ Cost\ for\ the\ activity$

- $ETC = PF * (BAC - EV)$

Where 'PF' is a multiplier to weight the ETC calculation. This can be either '1', '1/CPI' or '1/(SPI * CPI)' or user defined amount.

i. Planned Value Cost (BCWS or PV)

Planned Value Cost (PV) is the portion of the budgeted total cost of the activity that is scheduled to be completed as of the project data date according to the baseline dates. Also known as the Budgeted Cost of Work Scheduled for the activity. The Schedule % Complete specifies how much of the activity's original duration has been completed so far based on the baseline dates.

- $PV = BAC * Schedule \% Complete$

j. Schedule Performance Index (SPI)

A SPI greater than 1 means that Earned Value is greater than the Planned Value. A SPI of less than 1 means that the Earned Value is less than the Planned Value.

- $SPI = EV / PV$

iii. S-Curve

S-Curve is a display of cumulative costs, labor hours or other quantities plotted against time. A type of curve that shows the growth of a variable in terms of another variable, often expressed as unit of time.

S-Curve represents the utilization of resources over the proposed time of the project. The name derives from the S-like shape of the curve, flatter at the beginning and end and steeper in the middle, which is typical of most projects. The beginning represents a slow, deliberate but accelerating start, while the end represents a deceleration as the work runs out.

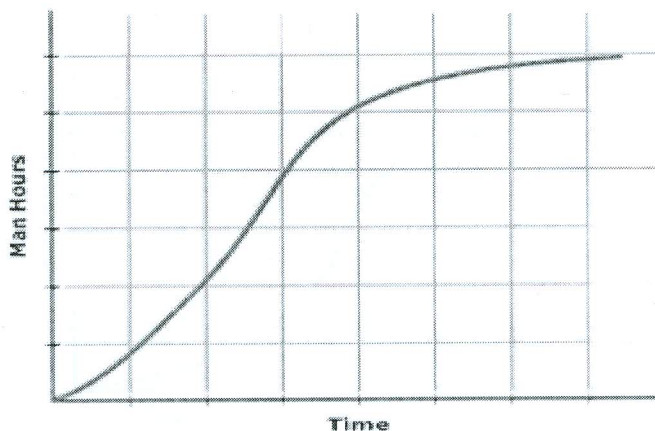
a. Types of S-Curve

There are a variety of S-curves that are applicable to project management applications, including:

1. Man Hours versus Time S-curve

This type of analysis is suitable for projects that are estimated as labor intensive, in which the project manager has to know the cumulative amount of man hours worked at a specific stage of the project. Results of the graph will provide the basis for adjustment, whether there is underperformance that warrants additional labor force or the implementation of closer supervision.

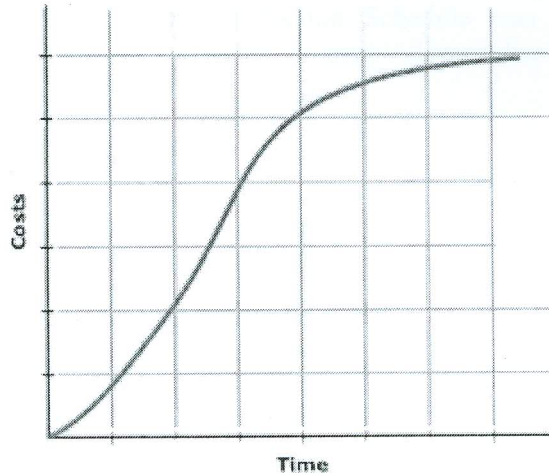
Fig1.3.1



2. Costs versus Time S-curve

This type of analysis is suitable for projects that require both labor and non-labor intensive elements. The main concern here is the cumulative costs at a specific stage of the project and its effect on the cash flow as well as the potential risks of exceeding the allotted costs.

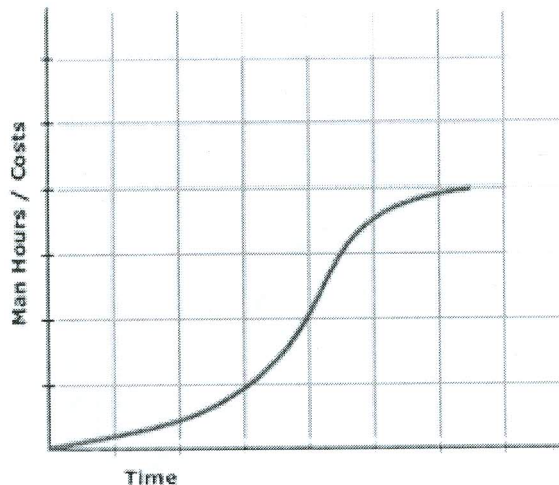
Fig 1.3.2



3. Baseline S-curve

This is the S-Curve against which all other S-Curves will be compared as it comprises the proposed allocation of expenditures and man hours to be used for the project's completion within a proposed duration.

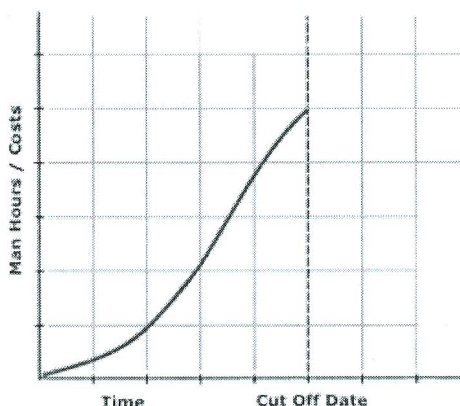
Fig 1.3.2



4. Actual S-curve

The production schedule is updated on a regular basis throughout the duration of the project. These updates include the revision of percentage complete for each task to date. Using this information, an Actual S-curve may be generated. This S-curve reflects the actual progress of the project to date, and may be compared with the Baseline and Target S-curves to determine how the project is progressing. During the project, the Actual S-curve will terminate at the Cut Off Date. This is the date the Production Schedule was last updated. At the completion of the project, the Actual S-curve will meet the Target S-curve.

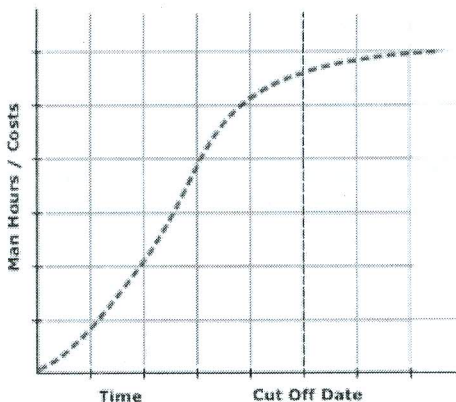
Fig 1.3.3



5. Target S-curve

Following project commencement, modification of the Baseline Schedule is usually required. Changes are continually made to the Production Schedule (which is originally the same as the Baseline Schedule). The production schedule reflects the actual progress of the project to date, and any revisions made to tasks yet to commence or not yet completed. From this schedule, a Target S-curve may be generated.

Fig 1.3.4



Chapter-2 Comparison

A. Ease of Use & Application Appropriation

Often folks are asking about the differences between Microsoft Project and Oracle Primavera P6. While coming up with a definitive list is more than challenging, below highlights some of the detailed feature differences between Primavera P6 over Microsoft Project.

It's all about the Enterprise

It's clear that Primavera P6 was designed for the enterprise from the start, while Microsoft Project migrated from a desktop application and added enterprise capabilities with Project Server. Now that Oracle owns Primavera P6, this gap is accentuated with the introduction of other heavy weight Oracle applications that support Primavera P6.

Multiple User Access

Microsoft Project doesn't allow multiple users to work on a single project at the same time, Primavera P6 does. In Primavera P6 you can specify what features of Primavera a particular user is permitted to use. Microsoft Project Server supports many projects at the same time, but a user locks a project when it's in use.

Baselines

In Microsoft Project, 11 baselines can be created for a project. In Primavera P6, unlimited baselines can be created and as many as four of these baselines can be assigned at any one time to a schedule.

Progress and Status

Primavera P6 offers a feature called Progress Spotlight. This Progress Spotlight highlights activity table rows in yellow if they are due any status in the next period (day, week, month, quarter or year). Microsoft Project requires the development of filters to allow for the selection of activities requiring status.

Issues & Risk

Microsoft Project lacks a feature for tracking project issues or risks. Primavera P6 can record issues and risks against a project, WBS element or activity.

Web Support

Primavera P6 plans, documents and other information can be converted to HTML directly from the software. Microsoft Project doesn't have such options.

Expenses

In addition to resource costs, Primavera P6 allows planned, remaining and actual project expenses (training, travel, ODC) to be entered at the activity level. Microsoft Project doesn't have this capability.

Custom Fields

Both Microsoft Project and Primavera P6 allow you to create custom fields. Microsoft Project also allows you to define formula for custom fields and add additional values to it. In Primavera P6 you can create a blank custom field, but you cannot set formulas to it, so users have to manually enter values in each field, for each column. You can use Activity Codes in P6 to create a column that has values that can be picked from a list similar to the Lookup feature in Microsoft Project's custom fields.

Columns

Primavera P6 is has many columns. It comes installed with over 200 columns, each giving you different information. Column categories include EVM, Budgeting, Costs, etc. In Microsoft Project, there are only around 40 columns.

Multiple Activity Relationships

In Primavera P6, more than one type of relationship can be established between activities, e.g. we can have FF and SS between the same two activities. In Microsoft Project only one relationship can be made between two activities.

Chapter 3

Introduction of the Company

Since 1985, National Educational Network (Pvt.) Limited known as PGC – Punjab Group of Colleges is a leading and fastest growing educational network in Pakistan. Group has three chartered universities, 400+ colleges and over 1000+ schools under the umbrella of PGC nation and worldwide. PGC recognized from their quality of education which providing to students. Punjab Group of Colleges (PGC) has successfully playing their role in education sector.

Company Mission

To educate and enable students to develop and polish their skills to think persuasively; to act wisely; to express themselves articulately; to work meticulously and to function empathetically in all phases of life as they have to prove a comprehensive building block in the reputation of the Nation.

Core Values

Following are the core values of PGC

Co-Curricular Activities

Generally education is considered to groom the personality of human. Integral part of education is co-curricular activities. They are helpful for students to develop their characters. They are also playing the important role to develop healthy competition and high moral values in them.

Services

- Student Counseling Service
- Web-Portal
- Shopping Mall
- Assessment

- ILC
- All-Excel
- Congenial Atmosphere

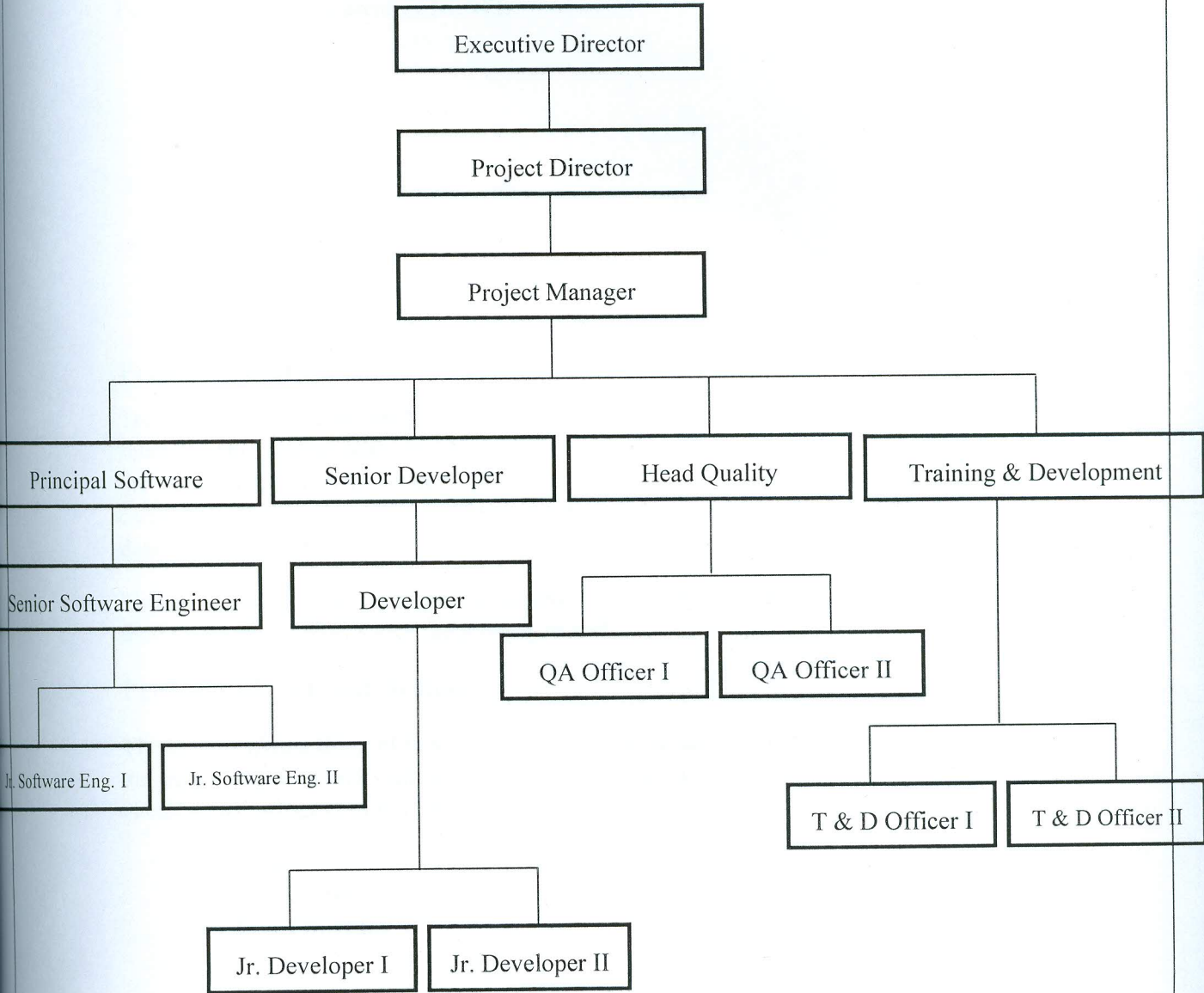
Incentives

Awarded rewards to high achievers, so that student inspire and preform. It's also encouraging students to get good grades in examination.

Quality

We commit to excellence by providing quality education.

Organizational Breakdown Structure



Business drivers

NENPL has become one of leading schooling brand in Pakistan which deals in franchise system in education sector by providing web-portal and others facilities to our clients.

Following are the key areas of NENPL

1. Web-Portal
2. Official ID's
3. Parents satisfaction
4. Shopping Mall
5. Integration with existing system
6. Security
7. Safety

Project History

The development of this system will enhance the EFA Schools franchise accessibility and security. This system will provide an online access to franchisee and their information to the administration. This system would be capable to perform duties of two systems campus management system and account management system. It would provide faster data handling of the students and teachers information.

The main objective of the project is to save the time of the end user by online accessing their data and it also enhance the security as well.

Problem of Current System

The most irritating thing of this era is time, as nobody has time to visit campus just for the sake of his/her child's information i.e. attendance, result and fee matters. Parents can check online progress of our child's. Following are the benefits of application:

- Time consumption
- Low comfort ability
- Low efficiency

The new system will provide an elegant and online way to manage the campus information so it would be absolutely solving the above mentioned drawbacks of currently working system.

Scope of New System

Web-Portal will solve time consumption issue by providing GUI to switch through various sections as per the need of user. This will allow the faster campus information manipulation. Definitely system errors will be reduced because it will be a composite system. This system will be providing various checking approach (procedures which will not allow user to enter duplicate record again) so it will provide data accuracy and consistency as well and also it will provide uniquely identifiable students and teachers data. Previous system was less efficient due to its slow processing and inconsistent data particularly in the presence of work load, unlike previous one this system will be efficient even in the presence of work load. So it will overall provide a more user friendly environment and will be more reliable and secure as well.

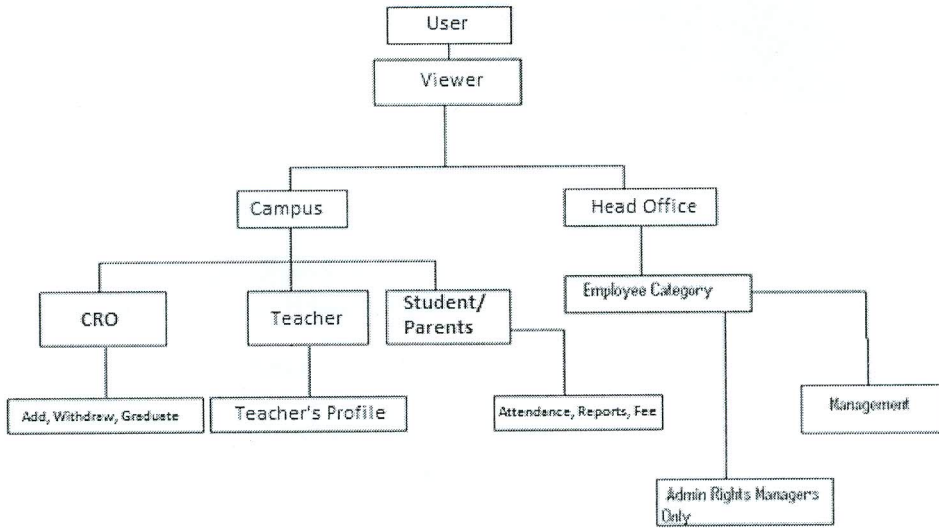
Context

- The currently working system was manual whereas the new system can be integrated on all MS windows platforms
- The current system is manual whereas new system is developed in .Net.

Functions

- Web-Portal: The system is for maintaining a student and teachers ID. The system provides the access to the campus to create an account of students and teachers.
- Online Management: students can check their daily attendance, progress report.
- Attendance: Attendance could be done online, or can be uploaded.
- Front-end GUI: The software will be having front-end graphical user interface to easily channel through various options and tasks e.g. add student, withdraw, transferred and graduate etc.

Functional Decomposition



Introduction to PMO

What is PMO

PMO stands for Project Management Office, Program Management Office or Portfolio Management Office, depending on the nature of the PMO being implemented. Due to diversified nature it has many responsibilities. PMO is a group of people that defines and maintains project management standards within organization.

Roles of PMO

There are three major roles of PMO:

1. Supportive PMO

PMO support to the project as providing templates, best practice; provide information from lesson learned etc. It has low authority level.

2. Controlling PMO

PMO take control of project to help in adopting frameworks depending upon the nature of project. It has moderate level of authority.

3. Directive PMO

PMO take direct control of the project. PM has low level of authority but considering high as compare two others PMO types.

Types of PMO

There are three types of PMO

1. Weather Station

PMO does not try to influence but reports on what is going on. It doesn't bother any of the PMs who are leading projects. In Weather Station people accrue information about projects and summarize it for senior management without making any decisions or enforcing any standards.

2. Control Tower

PMO gives direction to project manager about methodology. This includes project initiation, acquiring resources and correcting variances. While each PM manages his or

her own projects, the Control Tower project management office will alert them to future problems. It will also identify situations where the PM is not adhering to the methodology, particularly during scheduling and verification of deliverables.

3. Resource Pool

PM's may consider PMO, the internal department of the organization. The reporting is done to CCM (Command Central management), not to the project sponsors in the operating units. The Command Central's enforcement of a consistent methodology is strict. This PMO is actively involved in the evaluation of new projects and recommends approval or rejection to executives. They usually play an important role in configuration management. That's means they consider the changes to projects and changes to the specifications of project deliverables.

Why need PMO?

NENPL is a company that has more than 300 employees and they are still growing to manage and handle their projects company still need more employees. The number of projects is also increasing due to quality work provided by the company and employees. This makes a mess in deciding what project to do and what to do with least priority.

Purposed PMO

Weather station in supportive mode.

Reasons:

1. To store information as OPA (lesson learned) and to retrieve information when required for future use.
2. To select project that align with business need.
3. To prioritize the pipelined projects
4. Provides training to the managers about tools and methodologies used to manage project.
5. Provide a corner to all managers to come at a single platform and discuss their problems and share their knowledge with each other.

Project Charter

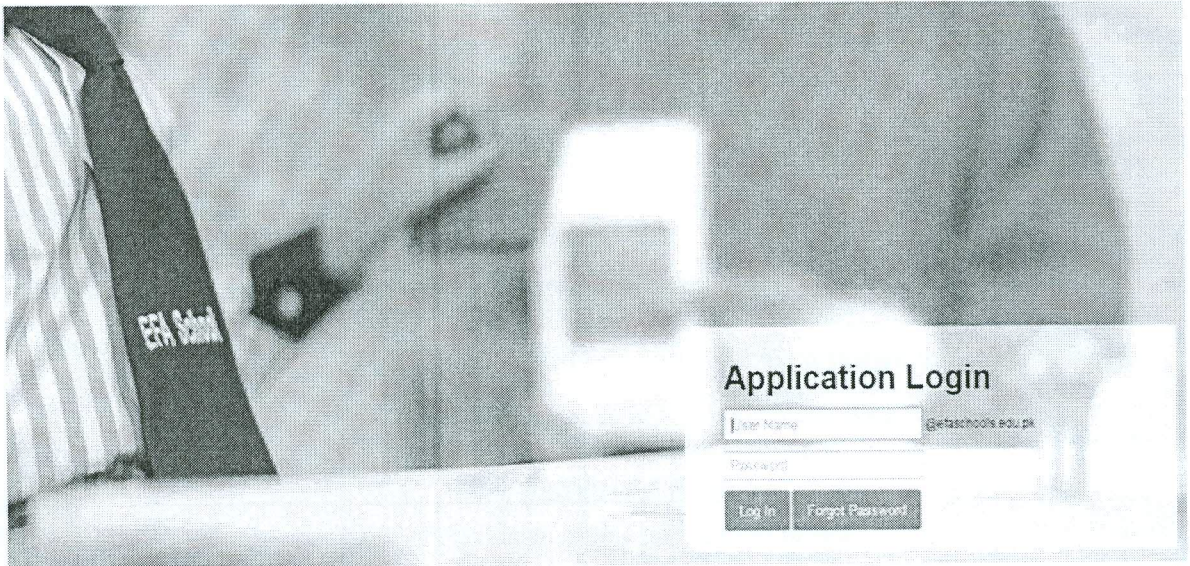
EFA

EDUCATION FOR ALL



EFA School System

No Child Left Behind: Project of Punjab Group of Colleges



1.2 Project Title

Development of Web-Portal of EFA Schools

1.3 Project Overview Statement

Project Overview

Name	EFA Schools
Document Date	Latest Version Date: 16 th Jan 2016
Stakeholders	Punjab Group of Colleges Open Investors Business Partners EFA Schools Management
Project Manager	Project Manager: Mr. Imran Aslam Head E-Media Department and Project Manager EFA Schools
Email Address and/or Website	pm.efaschools.edu.pk / http://www.efaschools.edu.pk/
Goal Statement	Web-Portal of EFA School System
Description and/or Background	Provide automated school management system to EFA campuses
Objectives	<ul style="list-style-type: none"> • Provision of school management system to all franchises • Implementation of information & communication technology in education
Scope	<p>Web-Portal is an online application provided to campuses to manage their campus records</p> <p>The project is to introduce the school management system in EFA Schools to help the campuses manage and automate the manual work and to improve the communication among the system of Franchising Schooling Systems</p>
Schedule	Start Date: 24 August 2015 End Date: 24 February 2016
Recommended Priority Level	P1 - Highest priority

Project Resources

Project Team	Executive Director: Prof. Sohail Afzal Project Director: Dr. Shahid Mahmood Project Manager: Mr. Imran Aslam
Cost Estimate	Estimated Cost: Rs. 69,75852/- Actual Cost: 1 Crore

Assumptions, Constraints, Dependencies, Impacts and Risks

Assumptions	One of the major risks for the project is that if the system is crashed / hacked then all the data of EFA Schools will be lost
Constraints	Its success depends upon literacy of campus staff
Dependencies	The finance of the project was solely depended on the Signatures of Executive Director of the Group
Impacts	To increase the revenue of organization
Risks	To provide technical training to people of remote area's

Deliverables, Expected Outcomes

Key Deliverables	The Key deliverable for this project is the operation of maximum campuses
Project Communication Plan	The communication has to be done via emails and video calls and telephonically communication
Success Criteria	The success criteria of this kind of projects are dependent on either all the campuses follow or use it properly?

Project success criteria: Complete the project within defined budget, time and defined scope.

Type of project: Research Development

Target End users: Every stakeholder effecting from that project.

Development Technology: Object Oriented Structured

Platform: Web based Distributed Desktop based
 Setup Configurations

General Manager: Hasan Mehdi (ict.hasan@efaschools.edu.pk)

Approved By General Manager:

Approved By Project Manager:

Approved By Client:

Date:

Hardware and Software Specification

- Visual Studio
- MS SQL Server
- Run on P4 and 2GB RAM min required or above computers
- Google chrome is recommended web browser

Tools and Technology with Reasoning

We'll be using following tools and technologies for developing:

.Net

.Net provides many useful controls and features for developing both desktop and web applications. Our team members are also well aware with it and they will develop this web portal by using it.

MS SQL Server

MS SQL Server is a very efficient and reliable database management system. It offers many useful features for creating and managing databases. It is very secure in terms of data storage and dealing with concurrency and transaction management issues. We'll be using it for creating and handling with our backend databases.

IBM Rational Rose

IBM Rational Rose is an object-oriented Unified Modeling Language (UML) software design tool intended for visual modeling and component construction of enterprise-level software applications. We will be using it for creating UML diagrams for our project deliverables.

Microsoft Word 2010

Microsoft Word is a very efficient and reliable word processor. We'll be using this tool for our documentation purposes.

EdrawMax

For making the ER diagrams and data modeling.

Adobe Photoshop:

By using to create customize images for activities background and button shapes.

Primavera P6

Oracle Primavera P6 is an integrated project portfolio management solution consisting of role specific. It's also satisfying the need of team members. It supports an enterprise

project structure with an unlimited no of projects activities baseline resources, WBS, OBS user define codes & CPM. The PM module provides centralized resource management. The primavera is project management software which is designed to assist project managers in developing plans, assigning resources to tasks, tracking progress, managing budgets and analyzing workloads. We'll be using this software for developing schedules, critical path analysis, managing resources and creating Gantt chart.

Chapter 4

Implementation of Web Portal

Detail of Activities:

Fig 4.1

Activity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finish	Total Float	Cost Performance Index	Performance Index	Schedule Variance	Earned Value Cost	Cost Variance	Schedule Variance
EFA Implementation													
Planning													
A1000	Plan Network Architecture	11	10	100%	25-Feb-16 A	10-Mar-16	-41	1.00	0.17	\$0.00	\$0	(\$4,040)	
A1040	Server Health	1	0	100%	25-Feb-16 A	25-Feb-16 A	-41	1.00	1.00	\$0.00	\$0	\$0	
A1050	EDS	1	1	100%	25-Feb-16	25-Feb-16	-41	0.00	0.00	\$0	\$0	(\$600)	
A1060	IT Audit	5	5	100%	01-Mar-16	07-Mar-16	-41	0.00	0.00	\$0	\$0	(\$400)	
A1070	End User Configuration	3	2	100%	08-Mar-16	10-Mar-16	-41	0.00	0.00	\$0	\$0	(\$1,800)	
Scheduling													
A1010	Updation of Equipments	6	6	100%	11-Mar-16	18-Mar-16	-41	0.00	0.00	\$0	\$0	(\$2,000)	
A1050	Setting of Servers	1	1	100%	14-Mar-16	14-Mar-16	-41	0.00	0.00	\$0	\$0	(\$300)	
A1080	Installation	1	1	100%	15-Mar-16	15-Mar-16	-41	0.00	0.00	\$0	\$0	(\$240)	
A1100	Training	1	1	100%	16-Mar-16	16-Mar-16	-41	0.00	0.00	\$0	\$0	(\$400)	
A1110	Establish the Connection	1	1	100%	17-Mar-16	17-Mar-16	-41	0.00	0.00	\$0	\$0	(\$240)	
A1120	Implementation Time of Equipments	1	1	100%	16-Mar-16	19-Mar-16	-41	0.00	0.00	\$0	\$0	(\$520)	
Discussion													
A1020	Calling of Team Members	16	16	100%	21-Mar-16	13-Apr-16	-41	0.00	0.00	\$0	\$0	(\$7,200)	
A1100	Assign Duties	1	1	100%	21-Mar-16	21-Mar-16	-41	0.00	0.00	\$0	\$0	(\$600)	
A1140	Assign Equipments	1	1	100%	24-Mar-16	24-Mar-16	-41	0.00	0.00	\$0	\$0	(\$600)	
A1150	Discussion in Meeting	1	1	100%	25-Mar-16	25-Mar-16	-41	0.00	0.00	\$0	\$0	(\$1,200)	
A1160	System Setup	5	5	100%	20-Mar-16	01-Apr-16	-41	0.00	0.00	\$0	\$0	(\$1,500)	
A1170	Distribution of Handbooks	5	5	100%	04-Apr-16	08-Apr-16	-41	0.00	0.00	\$0	\$0	(\$2,000)	
A1180	Preparation of Minutes of Meetings	2	2	100%	11-Apr-16	12-Apr-16	-41	0.00	0.00	\$0	\$0	(\$480)	

Fig 4.2

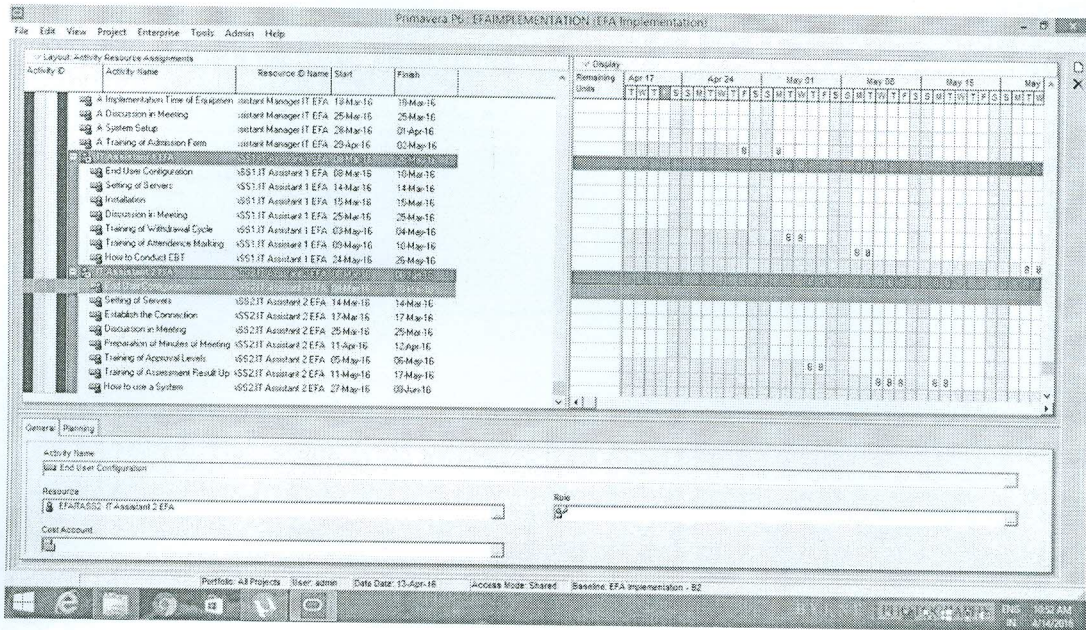
Activity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finish	Total Float	Cost Performance Index	Schedule Performance Index	Earned Value Cost	Cost Variance	Schedule Variance
A1200	Calling of Team Members	1	1	100%	23-Mar-16	24-Mar-16	41	0.00	0.00	0	0	0
A1190	Assign Equipments	1	1	100%	22-Mar-16	22-Mar-16	41	0.00	0.00	0	0	0
A1198	Assign Equipments	1	1	100%	24-Mar-16	24-Mar-16	41	0.00	0.00	0	0	0
A1194	Discussion in Meeting	1	1	100%	25-Mar-16	25-Mar-16	41	0.00	0.00	0	0	0
A1196	System Setup	5	5	100%	20-Mar-16	03-Apr-16	41	0.00	0.00	0	0	0
A1170	Distribution of Handbooks	5	5	100%	04-Apr-16	08-Apr-16	41	0.00	0.00	0	0	0
A1168	Preparation of Minutes of Meetings	2	2	100%	13-Apr-16	12-Apr-16	41	0.00	0.00	0	0	0
Implementation												
A1200	End User Training	43	43	0%	13-Apr-16	16-Jun-16	41	0.00	0.00	0	0	0
A1190	Training of Lab Set	10	10	0%	13-Apr-16	26-Apr-16	41	0.00	0.00	0	0	0
A1200	Training of Lab Set	2	2	0%	27-Apr-16	28-Apr-16	41	0.00	0.00	0	0	0
A1200	Training of Lab Set	2	2	0%	29-Apr-16	02-May-16	41	0.00	0.00	0	0	0
A1170	Training of Handbooks Cycle	2	2	0%	03-May-16	04-May-16	41	0.00	0.00	0	0	0
A1200	Training of Approval Levels	2	2	0%	06-May-16	06-May-16	41	0.00	0.00	0	0	0
A1200	Training of Adherence Marking	2	2	0%	09-May-16	09-May-16	41	0.00	0.00	0	0	0
A1200	Training of Automated Postal Upload	5	5	0%	11-May-16	17-May-16	41	0.00	0.00	0	0	0
A1200	Trainer Profile Update	2	2	0%	18-May-16	19-May-16	41	0.00	0.00	0	0	0
A1200	Time Table Formulation	2	2	0%	20-May-16	23-May-16	41	0.00	0.00	0	0	0
A1200	Time Table Formulation	3	3	0%	24-May-16	26-May-16	41	0.00	0.00	0	0	0
A1200	How to Use a System	3	3	0%	27-May-16	06-Jun-16	41	0.00	0.00	0	0	0
A1200	How to Download Downloadable Content	2	2	0%	08-Jun-16	09-Jun-16	41	0.00	0.00	0	0	0
A1350	Closing Remarks and Guidelines	1	1	0%	09-Jun-16	10-Jun-16	41	0.00	0.00	0	0	0

Resources

Fig 4.3

Activity ID	Activity Name	Resource ID Name	Start	Finish	Remaining Units
A1300	Project Manager EFA	M Project Manager EFA	26-Feb-16	26-Feb-16	
A1100	Calling of Team Members	M Project Manager EFA	23-Mar-16	23-Mar-16	
A1140	Assign Equipments	M Project Manager EFA	24-Mar-16	24-Mar-16	
A1190	End User Training	M Project Manager EFA	13-Apr-16	25-Mar-16	
A1250	Teachers Profile Update	M Project Manager EFA	03-Apr-16	19-May-16	
A1200	How to Download Downloadable Content	M Project Manager EFA	08-Jun-16	10-Jun-16	
A1350	Closing Remarks and Guidelines	M Project Manager EFA	10-Jun-16	10-Jun-16	
IT Manager EFA					
A10205	IT MGR	IT MGR IT Manager EFA	29-Feb-16	29-Feb-16	
A111	Training	IT MGR IT Manager EFA	16-Mar-16	18-Mar-16	
A111	Discussion in Meeting	IT MGR IT Manager EFA	25-Mar-16	25-Mar-16	
A111	Distribution of Handbooks	IT MGR IT Manager EFA	04-Apr-16	08-Apr-16	
A111	Training of Lab Set	IT MGR IT Manager EFA	27-Apr-16	29-Apr-16	
A110	Time Table Formulation	IT MGR IT Manager EFA	20-May-16	23-May-16	
Assistant Manager IT EFA					
A	IT Audit	Assistant Manager IT EFA	01-Mar-16	07-Mar-16	
A	Upload of Equipment	Assistant Manager IT EFA	11-Mar-16	11-Mar-16	
A	Implementation Time of Equipment	Assistant Manager IT EFA	19-Mar-16	19-Mar-16	
A	Discussion in Meeting	Assistant Manager IT EFA	25-Mar-16	25-Mar-16	
A	System Setup	Assistant Manager IT EFA	28-Mar-16	01-Apr-16	
A	Training of Adherence Form	Assistant Manager IT EFA	29-Apr-16	02-May-16	

Fig 4.4



S-Curve

Fig 4.5

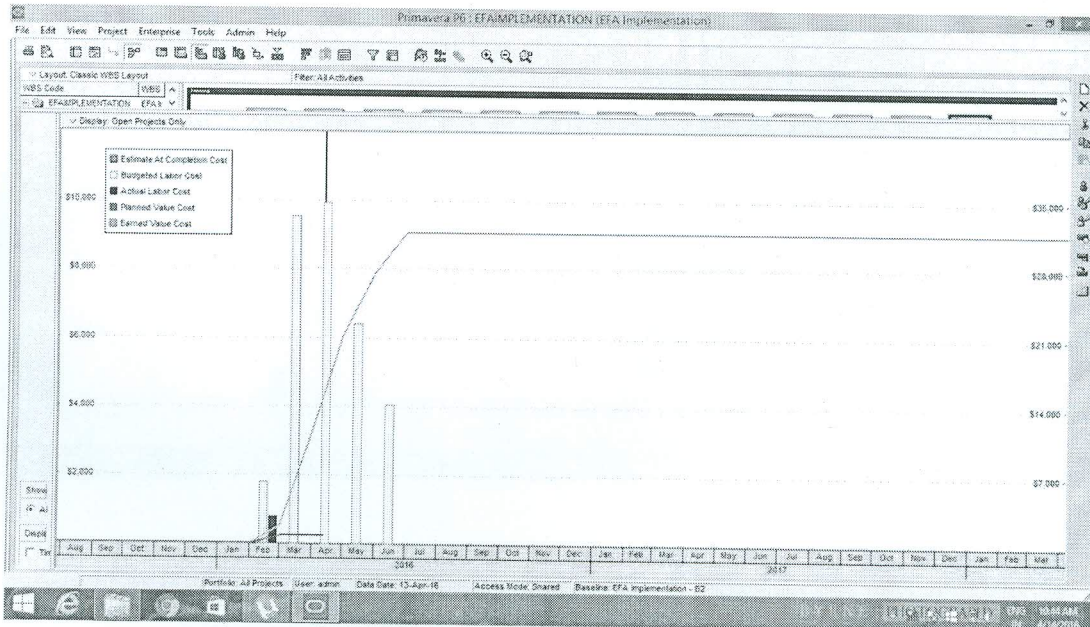


Fig 4.6

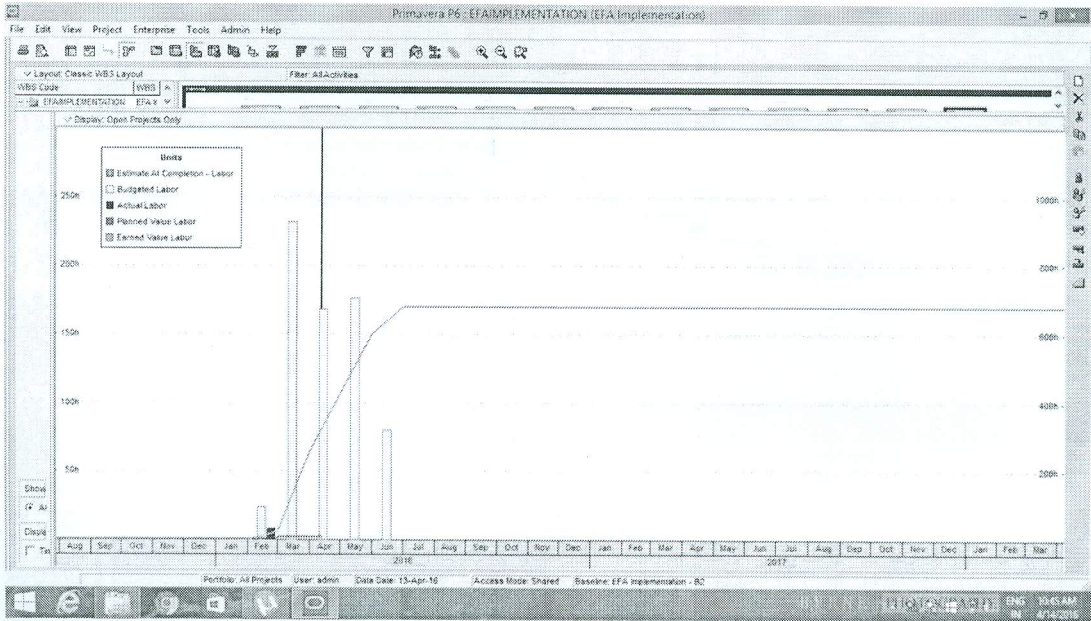
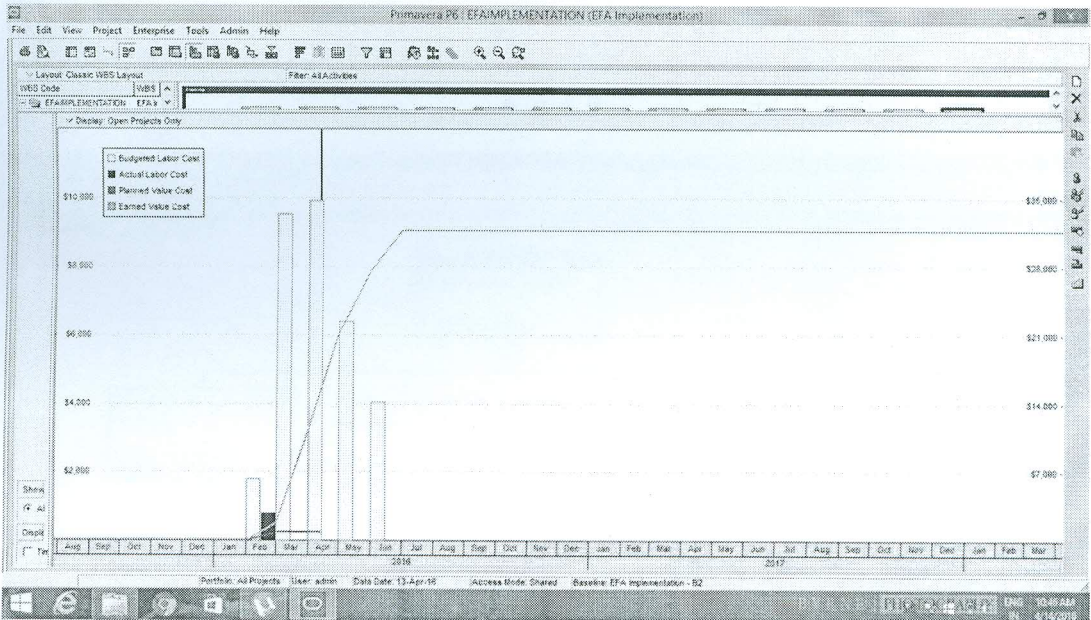


Fig 4.7



WBS

Fig 4.8

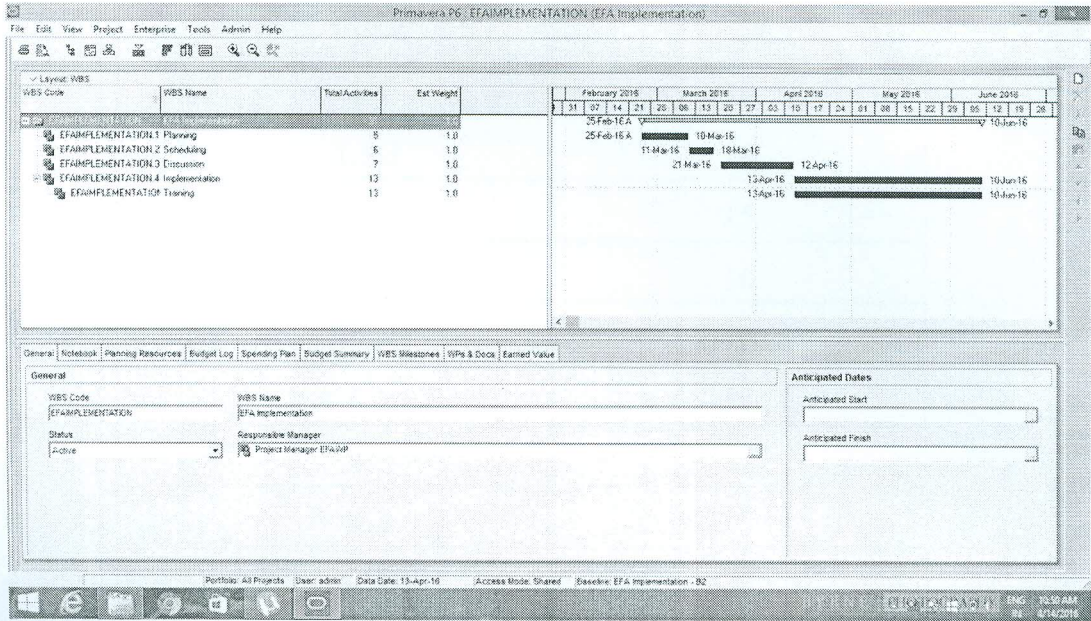


Fig 4.9

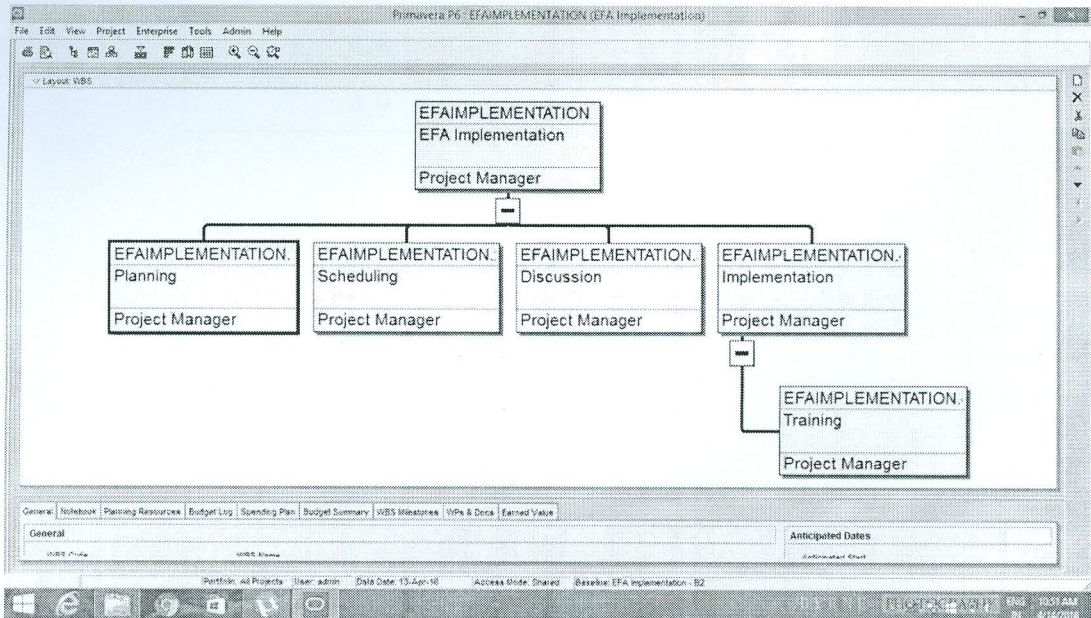


Table of figures

Fig #	Fig page
1.1	10
1.3.1	14
1.3.2	15
1.3.3	16
1.3.4	16
4.1	31
4.2	32
4.3	32
4.4	33
4.5	33
4.6	34
4.7	34
4.8	35
4.9	35

EFA Plagiarism Report

ORIGINALITY REPORT

7%

SIMILARITY INDEX

6%

INTERNET SOURCES

0%

PUBLICATIONS

1%

STUDENT PAPERS

PRIMARY SOURCES

1

projectcontrolsonline.com

Internet Source

5%

2

Submitted to Nottingham Trent University

Student Paper

1%

EXCLUDE QUOTES OFF

EXCLUDE MATCHES OFF

EXCLUDE
BIBLIOGRAPHY ON