



WALEED ZAMAN

**01-235161-068**

SHEHRYAR MALIK

**01-235161-083**

# **Explore Pakistan -Tourism Solution**

## **Bachelor of Science in Information Technology**

Supervisor: Maryam Khalid Multani

Department of Computer Science  
Bahria University, Islamabad

November 2019

# Abstract

Explore Pakistan is a Mobile Application designed for the betterment and encouragement of tourism in Pakistan. This application provides solutions to the problems of traditional tourism and ease for the tourists.

The Explore Pakistan Application is beneficial in such a way that before this application a tourist had to research a lot before travelling. He had to search for weather, navigations and liked places of destination separately from different applications or browser Explore Pakistan provide all that in one application. Along with that one had to go physically to the travel agencies to book a transport and hotels. In this application they can book a hotel and transport from same application online. With all these functionalities AR Guide is also implemented in the application to provide realistic 360 degree view of the location that helps tourist to get better picture of the destination.

Tourism is booming industry of Pakistan and has potential to become a major part of economy in upcoming years. This application is designed to provide ease to the tourist where they can get all the information related to their trips.

# Contents

<b>Abstract</b>	<b>i</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Project Background . . . . .	1
1.2 Problem Description . . . . .	2
1.3 Project Objectives . . . . .	2
1.4 Project Scope . . . . .	2
<b>2 Literature Review</b>	<b>4</b>
2.1 Literature Review . . . . .	4
2.2 Fieldtrip Ni Juan . . . . .	4
2.3 Mobile augmented reality on web-based platform for the tourism using HTML5 . . . . .	5
2.4 Augmented reality applied in tourism mobile applications . . . . .	5
2.5 Summary . . . . .	6
<b>3 Requirement Analysis</b>	<b>7</b>
3.1 Existing System . . . . .	7
3.2 Proposed System . . . . .	7
3.3 Requirement Specifications . . . . .	8
3.3.1 Functional Requirements . . . . .	8
3.3.2 Non-Functional Requirements . . . . .	9
3.4 Use Cases . . . . .	10
<b>4 System Design</b>	<b>16</b>
4.1 System Architecture . . . . .	16
4.2 Design Methodology . . . . .	16
4.3 Data Flow Diagram . . . . .	17
4.3.1 Context Diagram . . . . .	17
4.3.2 Level 0 DFD . . . . .	18
4.4 Sequence Diagram . . . . .	18
4.5 Deployment Diagram . . . . .	23
<b>5 System Implementation</b>	<b>24</b>
5.1 System Architecture . . . . .	24
5.2 Tools and Technology . . . . .	25
5.3 Development Environment / Languages Used . . . . .	26

<b>6</b>	<b>System Testing and Evaluation</b>	<b>27</b>
6.1	Graphical User Interface Testing . . . . .	27
6.2	Usability Testing . . . . .	28
6.3	Software Performance Testing . . . . .	29
6.4	Compatibility Testing . . . . .	29
6.5	Exception Handling Testing . . . . .	30
6.6	Load Testing . . . . .	31
6.7	Installation Testing . . . . .	31
<b>7</b>	<b>Conclusion</b>	<b>33</b>
7.1	Future work . . . . .	33
	<b>References</b>	<b>34</b>

# List of Figures

2.1	Region (3D model) Module . . . . .	5
2.2	AR City (Mobile Application) . . . . .	6
3.1	View Application Portal . . . . .	11
3.2	View User Interface . . . . .	12
3.3	View User Interface . . . . .	13
3.4	View AR Guide . . . . .	14
3.5	View Packages Management . . . . .	15
4.1	System Architecture . . . . .	17
4.2	Context Diagram . . . . .	18
4.3	Level 0 DFD . . . . .	18
4.4	Sign up Sequence Diagram . . . . .	19
4.5	User Login Sequence Diagram . . . . .	19
4.6	User AR Guide Sequence Diagram . . . . .	19
4.7	Route Information Sequence Diagram . . . . .	20
4.8	Real Time Tracking Sequence Diagram . . . . .	20
4.9	Admin Signup Sequence Diagram . . . . .	21
4.10	Admin Login Sequence Diagram . . . . .	21
4.11	Admin AR Guide Sequence Diagram . . . . .	21
4.12	Admin Packages Sequence Diagram . . . . .	22
4.13	System Deployment Diagram . . . . .	23
5.1	Explore Pakistan System Architecture . . . . .	25

# List of Tables

3.1	View Application Portal . . . . .	11
3.2	View User Interface . . . . .	12
3.3	View Admin Interface . . . . .	13
3.4	View AR Guide . . . . .	14
3.5	View Packages Management . . . . .	15
6.1	GUI Testing . . . . .	28
6.2	Usability Testing . . . . .	28
6.3	Software Performance Testing . . . . .	29
6.4	Exception Handling Testing . . . . .	30
6.5	Exception Handling Testing . . . . .	30
6.6	Load Testing . . . . .	31
6.7	Installation Testing . . . . .	32