Tribhuvan University

Faculty of Humanities and Social Sciences

"TOURIST GUIDE"

A PROJECT REPORT

Submitted to

Department of Computer Application

Patan Multiple Campus

Patan Dhoka, Lalitpur

In partial fulfillment of the requirements for the Bachelors in Computer Application

Submitted by:

Salina Acharya

BCA 6th Semester

University SN: 6-2-22-341-2018

Roll No.: 220135

Under the Supervision of

Basanta Chapagain

Tribhuvan University

Faculty of Humanities and Social Sciences

Patan Multiple Campus

Patan Dhoka, Lalitpur

Bachelor in Computer Applications (BCA)

SUPERVISOR'S RECOMMENDATION

I hereby recommend that this project prepared under my supervision by **Salina Acharya** entitled "**Tourist Guide"** in the Partial Fulfillment of requirement for the degree of Bachelor in Computer Application is recommended for that final evaluation.

Basanta Chapagain

Project Supervisor

BCA Department

Patan Multiple Campus

Tribhuvan University

Faculty of Humanities and Social Sciences

Patan Multiple Campus

Patan Dhoka, Lalitpur

Bachelor in Computer Applications (BCA)

LETTER OF APPROVAL

This is certify that this project prepared by **Salina Acharya** entitled "**Tourist Guide"** in the Partial Fulfillment of requirement for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

Basanta Chapagain
Supervisor
BCA Department
Patan Multiple Campus

Bhoj Raj Joshi
Program Coordinator
Patan Multiple Campus
Patan Dhoka, Lalitpur

External Examiner

Basanta Chapagain
Internal Examiner

ACKNOWLEDGEMENT

I have taken effort in this project. However, it would not have been possible without the help and support of many individuals and organizations. I would like to extend our sincere thanks to all of them.

I am highly thankful to Patan Multiple Campus for providing us with this opportunity to showcase our learning through this project. I am also appreciative of the effort of our co-coordinator for providing a learning environment contributing to the success of this project.

I would like to express my deepest sense of gratitude and sincere thanks to our highly respected supervisor **Mr. Basanta Chapagain** for his valuable guidance, encouragement and help. His useful suggestions for this project and cooperative behavior are sincerely acknowledged.

At the end, I would like to express my sincere thanks to all the friends and others who helped me directly or indirectly during this project work. This project has been a wonderful experience where I have learnt and experienced many beneficial things.

Yours sincerely,

Salina Acharya

ABSTRACT

Tourist Guide System project enables the visitor to obtain details about the place they want to visit such where it is located. Likewise they can make their wish list. It helps choose destination for the visitor. Traveller (site visitor) will be able to get recommendation according to their choices of location, activities such as hiking, trekking many more. The Page Admin will be able to upload different location. Every client will have different access privileges for the system. It is easy to understand the web-based system which is efficient and user friendly. The purpose of this study is to provide proper guidance and reliable information about destination and location details. It will provide better user interface in comparison to other websites. Moreover this site is hassle free.

Key Words: ***Tourism, Travelling, Exploration, UI, UX***

TABLE OF CONTENTS

SUPERVISOR'S RECOMMENDATION i

LETTER OF APPROVAL ii

ABSTRACT ii

LIST OF FIGURES v

LIST OF TABLES vi

LIST OF ABBREVIATIONS vii

CHAPTER: 1 1

INTRODUCTION 1

1.1 Introduction **1**

1.2 Problem Statement **1**

1.3 Objectives **1**

1.4 Scope and Limitation **2**

1.4.1 Scope 2

1.4.2 Limitations 2

1.5 Development Methodology **2**

1.6 Report Organization **2**

CHAPTER: 2 4

BACKGROUND STUDY AND LITERATURE REVIEW 4

2.1 Background Study **4**

2.2 Literature Review **4**

CHAPTER: 3 6

SYSTEM ANALYSIS AND DESIGN 6

3.1 System Analysis **6**

3.1.1 Requirement Analysis 6

3.1.2 Feasibility Analysis 8

3.1.3 Data Modeling ER-Diagram 9

3.1.4 Process Modeling (DFD) 11

3.2. System Design **12**
3.2.1. Architectural Design 12
3.2.2 System Flowchart 13
3.2.4. Interface Design (UI Interface / Interface Structure Diagrams) 14
CHAPTER: 4 18
IMPLEMENTATION AND TESTING 18
4.1. Implementation **18**
4.1.1. Tools Used (CASE tools, Programming language, Database platforms) 18
4.1.2. Implementation details of modules 19
4.2 Testing **20**
4.2.1 Test Cases for Unit Testing 20
CHAPTER: 5 22
CONCLUSION AND FUTURE RECOMMENDATIONS 22
5.1. Lesson Learnt / Outcome **22**
5.2 Conclusion **22**
5.3 Future Recommendations **22**
REFERENCES 23

LIST OF FIGURES

Figure 3.1 Waterfall Methodology of Tourist Guide 6
Figure 3.2 Use case Diagram of Tourist Guide 7
Figure 3.3 ER Diagram for Tourist Guide 10
Figure 3.4 Level 0 DFD for Tourist Guide 11
Figure 3.5 Level 1 DFD for Tourist Guide 12
Figure 3.6 Architectural Design of Tourist Guide 13
Figure 3.7 System Flow chart of Tourist Guide 14
Figure 3.8 Wireframes design of Home Page of Tourist Guide 15
Figure 3.9 Wireframes design of Login Page for Tourist Guide 16
Figure 3.10 Wireframes design of Register Page for Tourist Guide 16

LIST OF TABLES

Table 4.2: Test case for User Registration of Tourist Guide.....20
Table 4.3: Test case for User Login of Tourist Guide.....21

LIST OF ABBREVIATIONS

API	Application Programming Interface
CRUD	Create, Read, Update, Delete
CSS	Cascading Style Sheets
DFD	Data Flow Diagram
ER	Entity Relationship
FR	Functional Requirement
HTML	Hypertext Markup Language
JS	JavaScript
SQL	Structured Query Language
UI	User Interface
UX	User Experience

CHAPTER: 1

INTRODUCTION

1.1 Introduction

This system is developed to provide best travelling services to the users. Tourist Guide system is developed to provide a search platform where a tourist can find their tour places according to their choices. This system also helps to promote responsible and interesting tourism so that people can enjoy their holidays at their favorable places. This system also helps to develop tourism with different cultures so that they enrich the tourism experience and build pride. We develop this system to create and promote forms of tourism that provide healthy interaction opportunities for tourists and locals and increase better understanding of different cultures, customs, lifestyles, traditional knowledge and beliefs. In this project, we will make an easier task of searching places. In the present system a customer has to approach various agencies to find details of places and to book tickets. This often requires a lot of time and effort. We provide approach skills to critically examine how a tourist visits and its ability to operate in an appropriate way when dealing with the consequences of tourism, locally, regionally, and nationally including visitor security and ecological influences. It is tedious for a customer to plan a particular journey

1.2 Problem Statement

In the current context, the travel and tourism agencies has not provide enough and reliable information along with user friendly design, conventional color combination and taking consideration of user experience. Due to this problem, the user might not prefer to use any website regarding travel and tourism activities. Many argue that the tourism industry is the biggest industry in the world, employing more people than any other industry. In current scenario website are developed without any consideration on what's best for user.

1.3 Objectives

The main objectives of this system are as follow:

- To provide a search platform for tourist places.

- To provide reliable Information to the user to help in accurate planning.

1.4 Scope and Limitation

1.4.1 Scope

The project we are developing is meant for the Users planning on traveling to various places and want to get information regarding the place they want to visit. Users can save the place to bookmarks so they can view it on future. It also help the travelers find suitable location for proper activities like trekking, hiking, mountaineering and so on.

1.4.2 Limitations

There are some criteria that may not be fulfilled by this application implemented. The limitations of this system are mentioned below:

- The users are not allowed to upload the location of their choice.

1.5 Development Methodology

For the development of this system, structured approach is used that includes data modeling ER diagram, process modeling DFD diagram, architectural design, database schema design, interface design and Physical DFD.

1.6 Report Organization

Introduction

This chapter deals with the introduction of the system with its objectives and limitations along with the reason why the system is made.

Background Study and Literature Review

This chapter summarizes the work that has been carried out in the field of data mining and also describes the features about some existing applications related to the medical emergency alert system.

System Analysis and Design

This chapter focuses on the different requirement of the system, which describes about the functional, non-functional, feasibility analysis, Entity Relational diagram, Data Flow Diagram, design of the system with system architecture, database schema, and interface design.

Implementation and Testing

This chapter emphasizes tools used in system development, implementing details and result of test performed.

Conclusion and Future Recommendation

This chapter highlights brief summary of lesson learnt, outcome and conclusion of the whole project and explain what have been done and what further improvements could be done.

CHAPTER: 2

BACKGROUND STUDY AND LITERATURE REVIEW

2.1 Background Study

Tourist Guide System is the system designed to be used to search different tourist places. In this system, There are many systems that has been released, developed or in developing process which work similar as this systems such as Online Travel Management Software, Travel and Tourism Management System, etc.

2.2 Literature Review

There are many similar systems that has been developed or in developing process available in web where some are free and many need to be procured. Similar applications are found in Google play store, apple store, Microsoft store and some are third parties' application or system also.

Online Travel Management Software

Travel Management Software is designed to help travel agent, tour operator, Destination Management Company and travel agency to respond effectively to their customers' requisites. Integration with online booking technology, Online Travel Management Software is complete travel software solution deliver end-to-end solutions for Travel Reservation, Hotel Reservation, Operations, Back-Office, contracts, and distribution system. Incorporated with highly advanced intelligence tools means Travel Management Software (TMS) will enable you to gain a better understanding of your customers' needs that alternatively help you to contrive and conceptualize promotional campaigns according to their requirements. [1]

Travel and Tourism Management System

Travel and tourism management system is used to book a tour from anywhere in the world by a single dynamic website which will help the user to know all about the places and tour details in a single website. The admin can add packages to the website from a certain travel agents and hotels by create a tour page. Then the users can sign in and book each project,

they can be confirmed by the admin in their manage booking page. The user can see the confirmation in their my booking page. It is a easiest platform for all travelers which can be easily booked and know the all details. Tour Management system is a dynamic website for tourism business. It is dynamic and responsive web design. It is also called travel technology solution for agencies & tour operation. Nearly everyone goes on a vacation for this ‘a Tourism management system’ would play a vital role in planning the perfect trip. The tourism management system allows the user of the system access all the details such as location, events, etc. [2]

CHAPTER: 3

SYSTEM ANALYSIS AND DESIGN

3.1 System Analysis

This system is designed with the series of processes starting with requirement analysis, design, implementation, testing and maintenance. During requirement analysis, all the functional and nonfunctional requirement are analyzed and system is developed according to the requirement then designing of the system is carried out. After the design process, coding and development part is started then after integrating the system there is testing of the system. If the testing is positive then system is implemented otherwise some maintenance is done and system come in operation. [3]

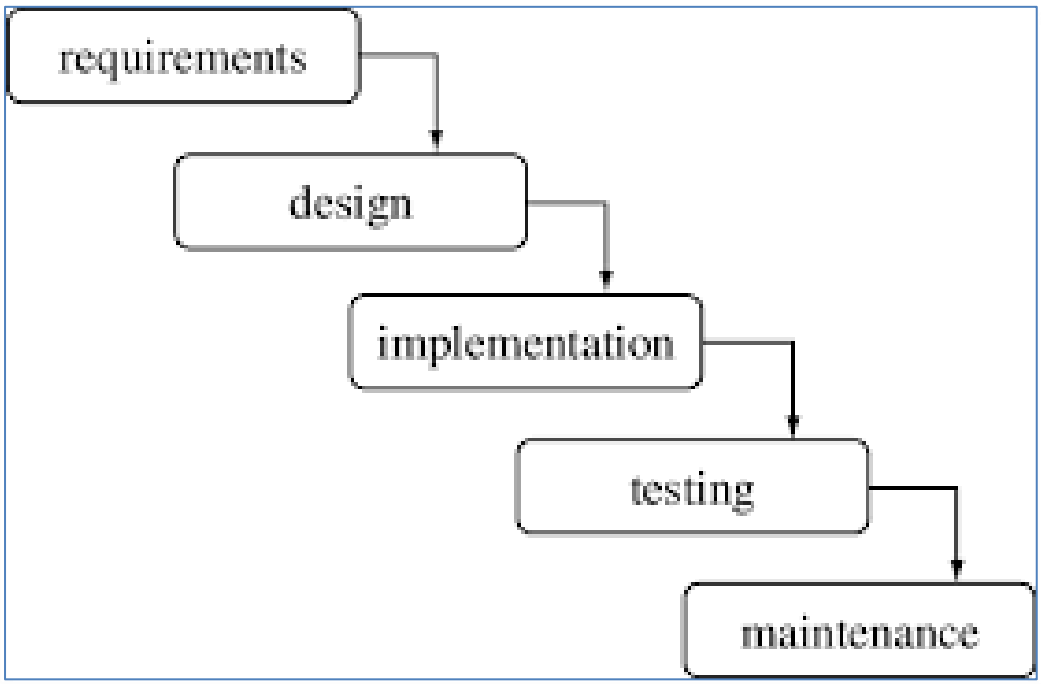

Figure 3.1 Waterfall Methodology of Tourist Guide

3.1.1 Requirement Analysis

For this system, requirements are basically identified through functional and non-functional requirements.

i. Functional Requirement

Different functional requirement of the system have been identified and are listed as below:

For Users:

- The system allows user to register.
- The system allows users to search for travel destination.
- The system notifies user about information of the nearest destination.

For Admin:

- The system creates and manage user's username and password.
- The system allows the system administrator to monitor the system users' data.

USECASE DIAGRAM

In Tourist Guide system, there are two actors : user and Admin where user can Login, Search Location , View Location, Save Location and logout from the system. Likewise, Admin can register, login, Create post, view post and delete post and logout from the system.

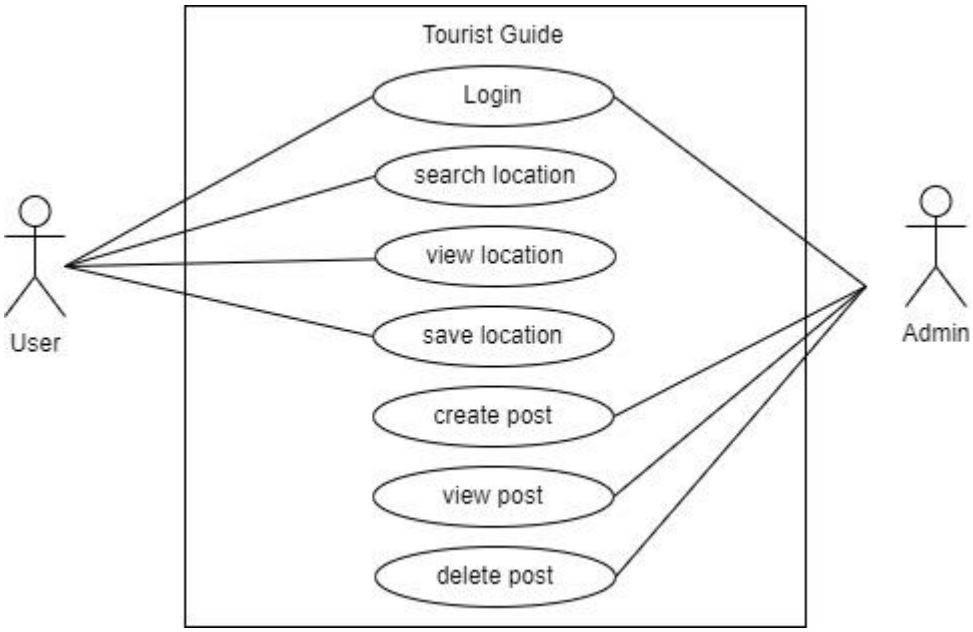

Figure 3.2 Use case Diagram of Tourist Guide

ii. Non Functional Requirement

Different non-functional requirement have been studied and identified and are listed as below:

- **Security**: - The system is secure from outside attacks as authorized user and admin are allowed to access the data. Admin representative on duty can log into the system and have access to the system but access to have various subsystems is protected by the user login screen that requires a username and password. This system uses at least 8-character passwords for security. Different validation process is used.
- **Performance**: - The performance of the system is fast and accurate as in this system database is normalized so it provide fast operations. [4]

3.1.2 Feasibility Analysis

The feasibility study concluded that the project is able to be implemented to success as it was carefully planned.

i. Technical Feasibility Study

The system is technically feasible as the requirement for the development of the system is easily accessible. The necessary hardware and software required for the development and implementation of the system is available. The basic programming language which is suitable for project is available and the libraries required for project is capable of achieving the result that we are aiming for. All the existing resources can be used for the development and maintenance system.

ii. Operational Feasibility Study

The system is easy to operate with the basic knowledge of computer and internet and well trained manpower is not necessary. User can also easily access the system as it is user friendly in many aspects with good User Interface (UI). This system include all the requirements used for sponsorship system and this system is completely operational and can be successfully implemented and administration feel easy to use this system as it is user-friendly.

iii. Economic Feasibility Study

The system is economically feasible and cost effective. As all the tools and resources required are either open sources or free. After the completion of the system organization didn't need to deploy any new hardware and software as the required software and hardware. The existing resource of the system can be used. [5]

iv. Schedule Feasibility Study

The system is completed within scheduled time and do not exceed the scheduled time.

Table 3. 1: Gantt chart Table for Tourist Guide

Task Name	Duration
Getting Started	2 weeks
System Design & Architecture	2 week
Implementation	7 weeks
Deployment	4 weeks
Documentation	12 weeks

3.1.3 Data Modeling ER-Diagram

In the ER diagram of Tourist Guide, there are 7 entities. The user entity has attributes id, username, password, name, email and address. The admin entity has attributes id, name, address, email, username and password. The comment entity has attributes id, comment, user id, location id and created date. The feedback entity has attributes id, user id and feedback. The image has attributes id, image and location id. The favorite has attributes user id, id, location id and created date. The location has attributes id, img, name, admi id and description. The user can give feedback, post comment and can save the favorite place. The admin is responsible to create the location.

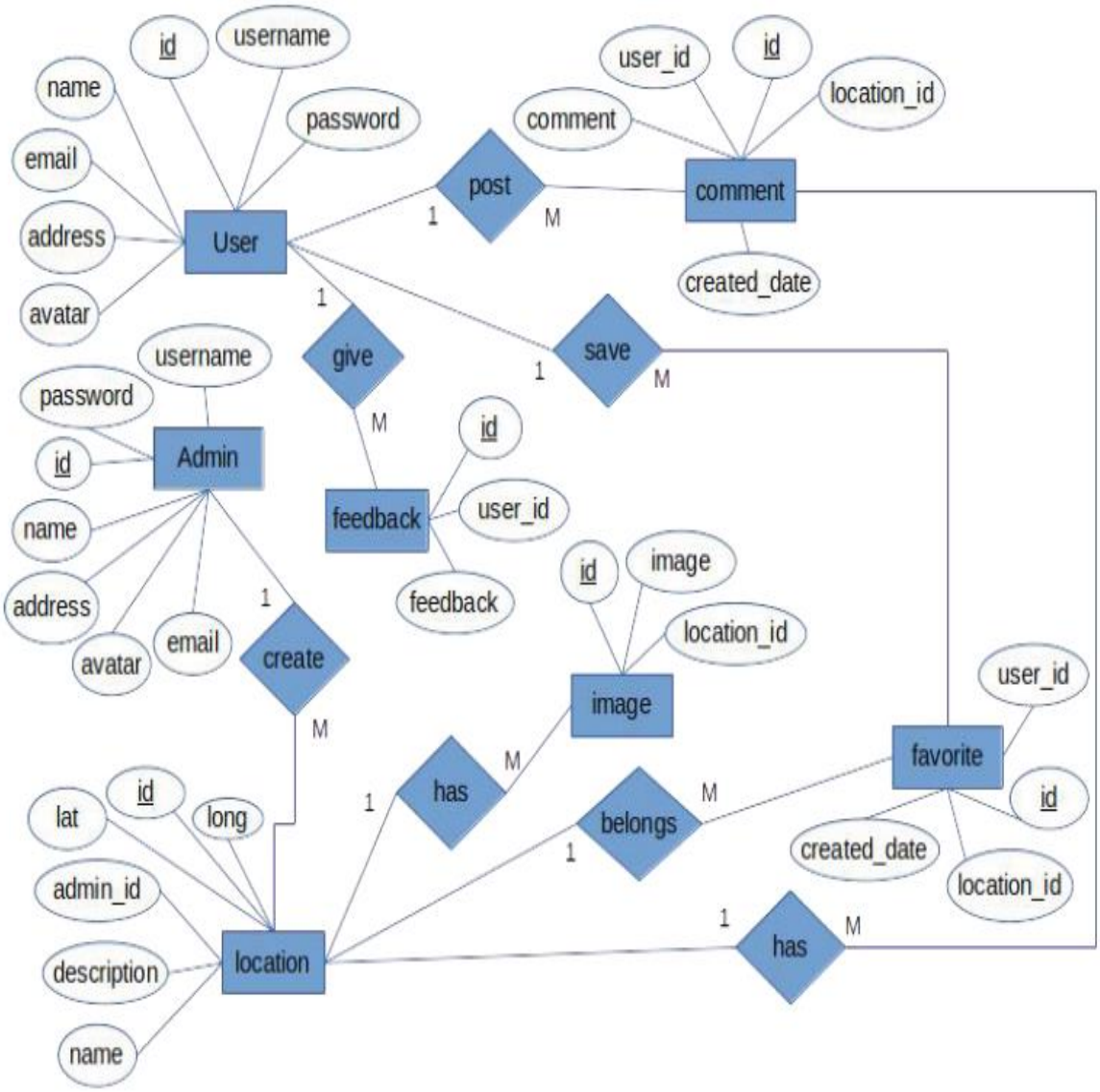

Figure 3.3 ER Diagram for Tourist Guide

3.1.4 Process Modeling (DFD)

Data Flow Diagram of Tourist Guide System consists of two levels of DFD context diagram and level one dfd. Both these levels are used for making data flow diagram of Tourist Guide.

The 0 Level dfd includes admin and user. The user gives user info to the system and gets confirmation details from the system. Similarly, the admin gets user info from the system and gives confirmation details to the system.

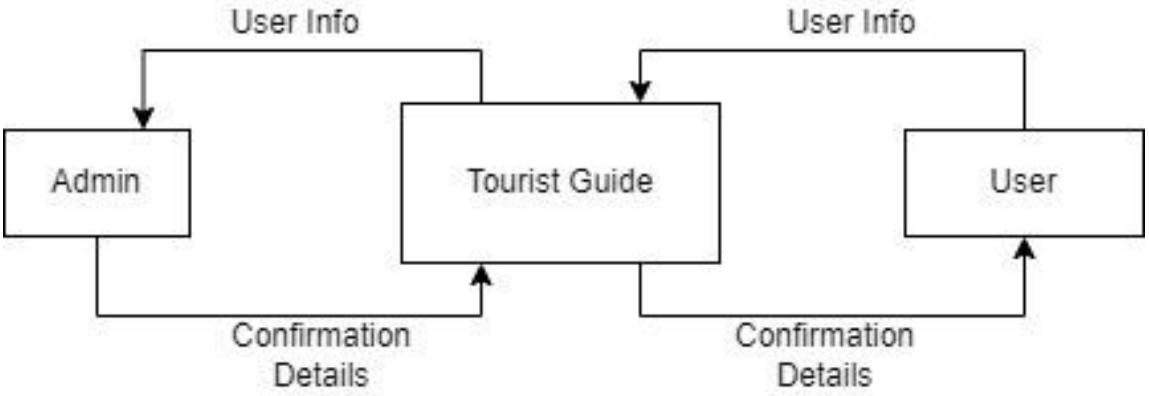

Figure 3.4 Level 0 DFD for Tourist Guide

In the 1 level dfd of Tourist Guide, the user registers to the system. After the verification by the system, the user can login to the system. After successful login, the user can search for different places and can give feedback. The user can also save the places of their choices in the favorites.

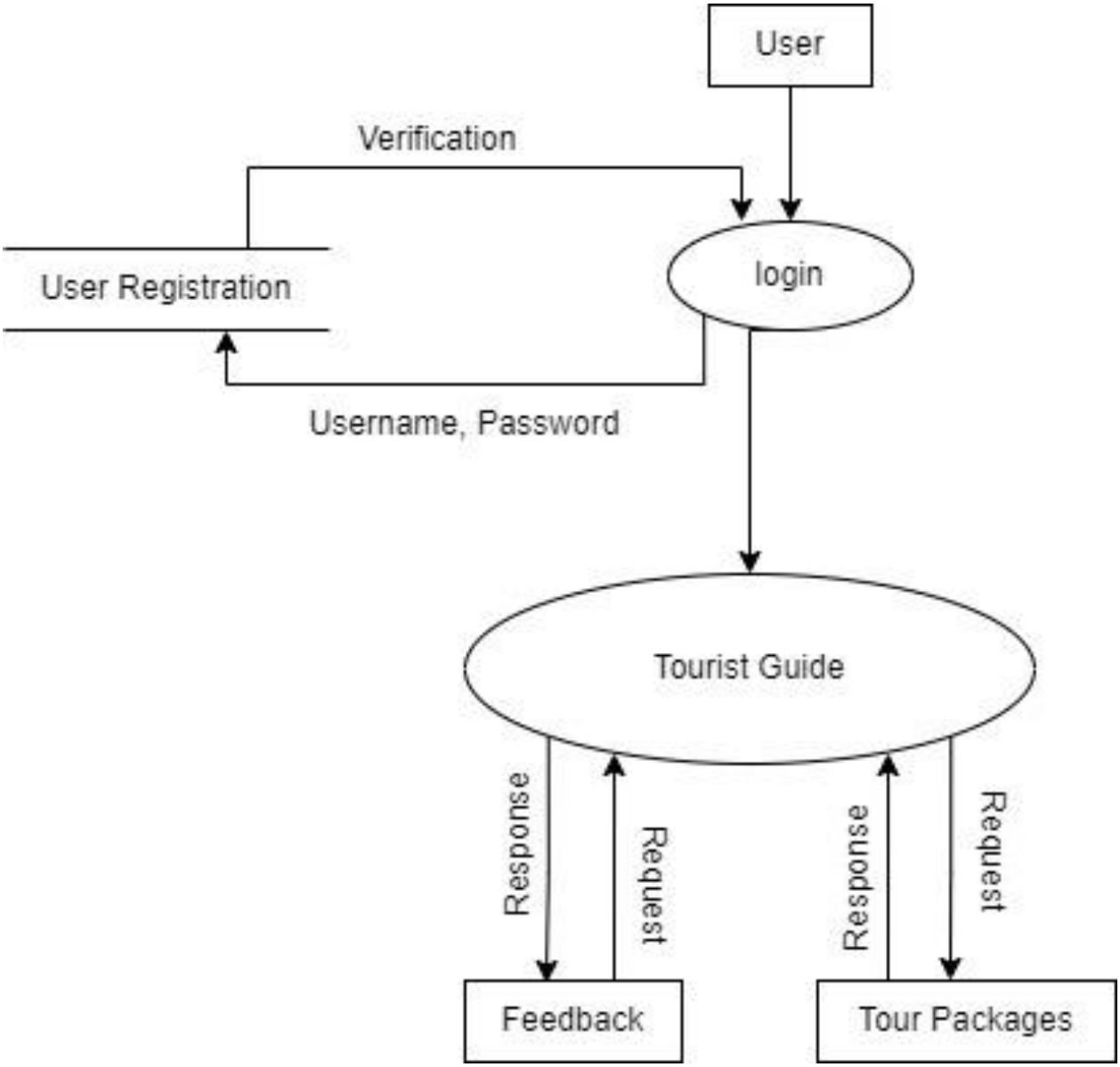

Figure 3.5 Level 1 DFD for Tourist Guide

3.2. System Design

To realize the different functional requirement of the system in graphical form, different design diagram of the system has been prepared which are as follows:

3.2.1. Architectural Design

For this system, three tier architecture is used which includes user interface, web server and database. In architectural design, basic structure of the system is shown.

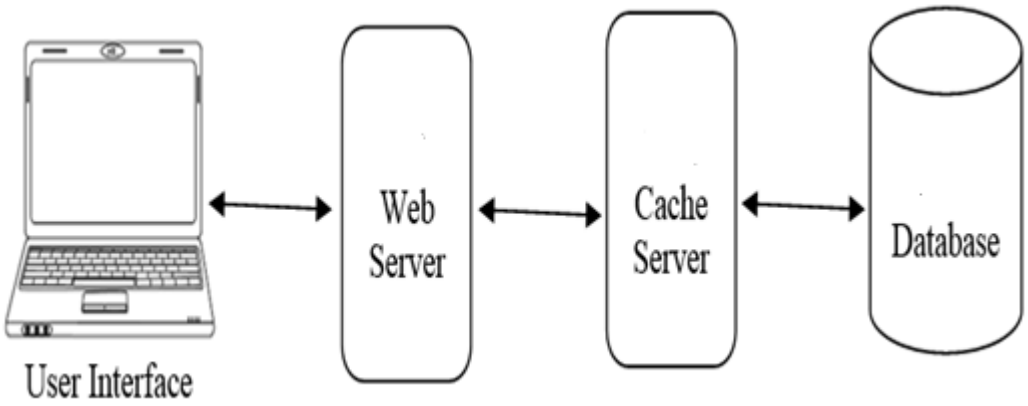

Figure 3.6 Architectural Design of Tourist Guide

3.2.2 System Flowchart

If the user has already signed up for the system, they can login to the system. After the successful login, user can search for the location. Similarly they can view the location that they have saved in their favorites. The admin manages the location, checks feedback, and also see the saved locations.

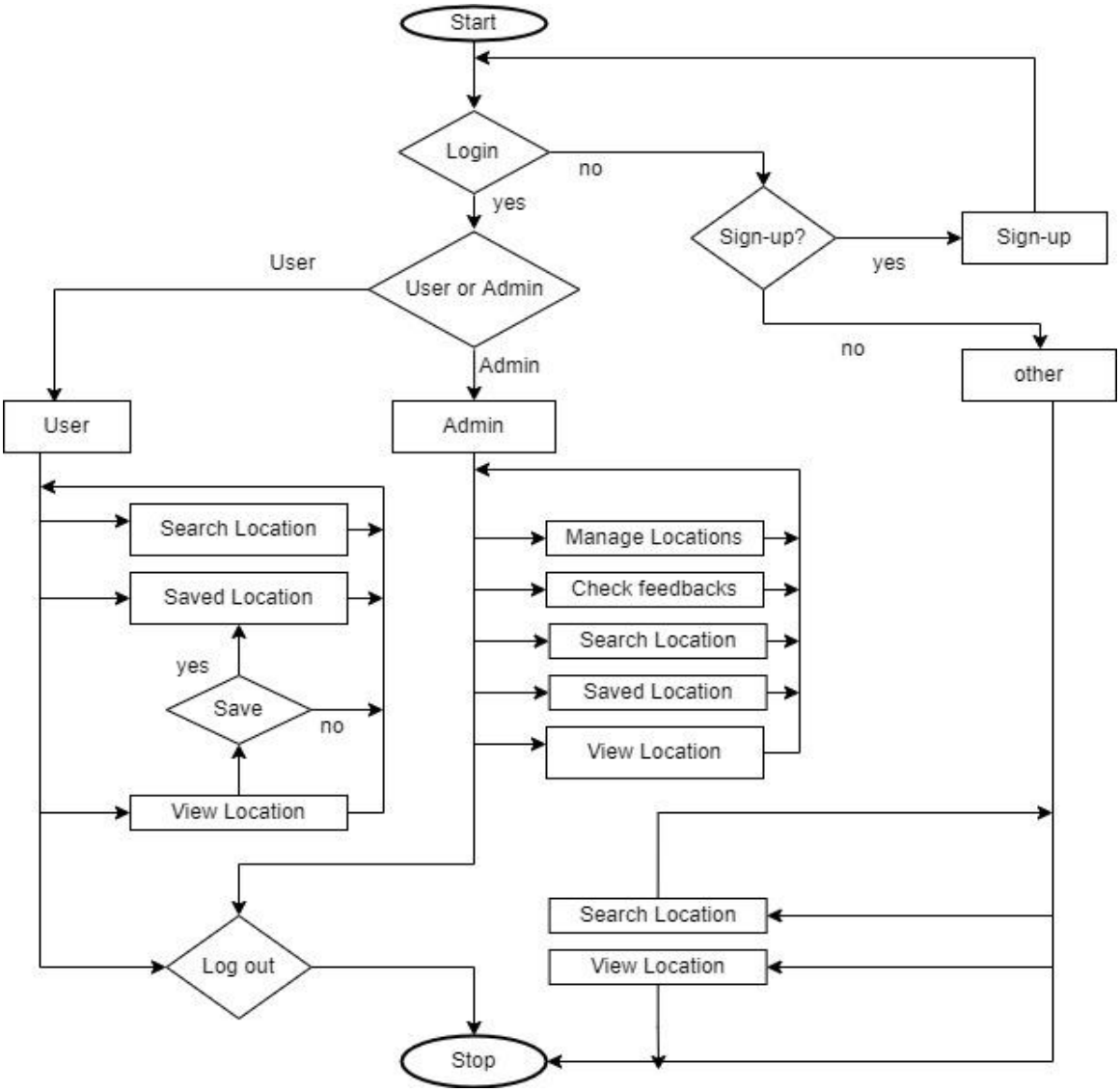

Figure 3.7 System Flow chart of Tourist Guide

3.2.4. Interface Design (UI Interface / Interface Structure Diagrams)

Interface design is used to design how the Tourist Guide system looks like and this design is shown to user that how the system will look. And after finalizing the system development starts. The figma design of home page, register page, login page and dashboard page of Tourist Guide system are shown below:

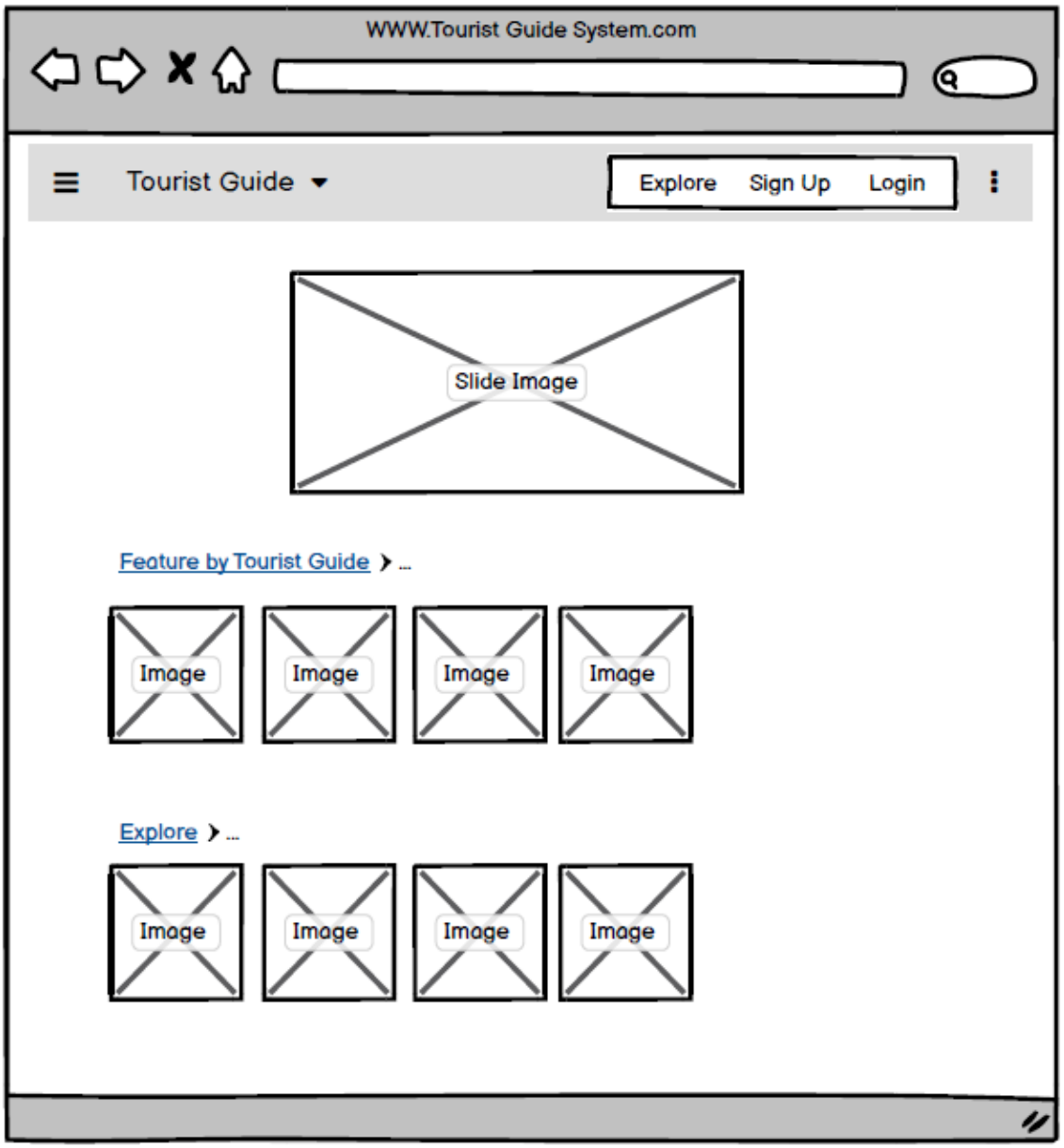

Figure 3.8 Wireframes design of Home Page of Tourist Guide

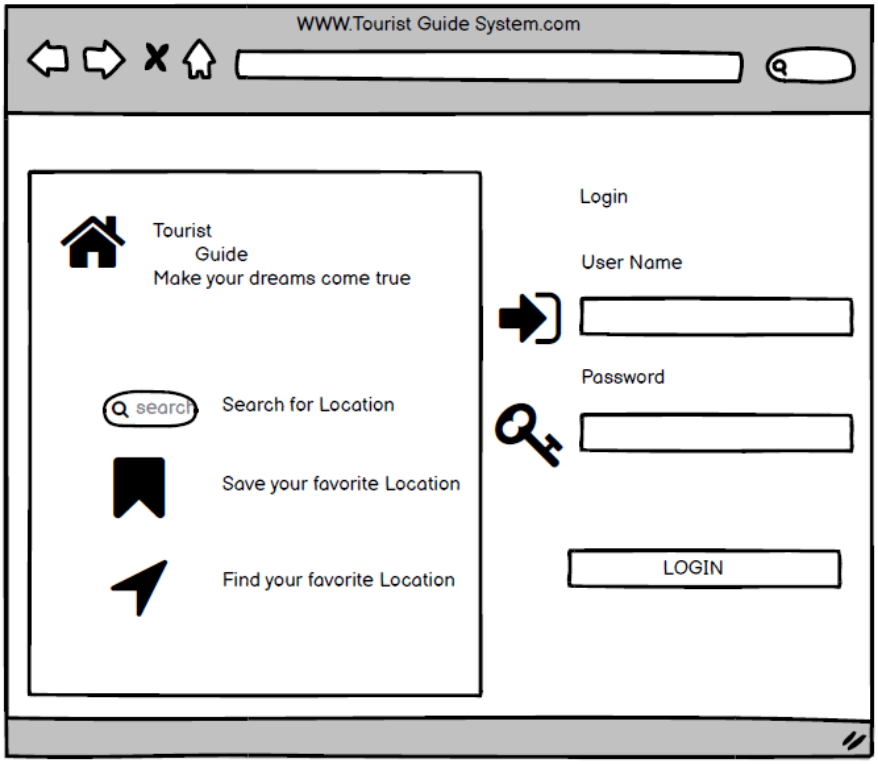

Figure 3.9 Wireframes design of Login Page for Tourist Guide

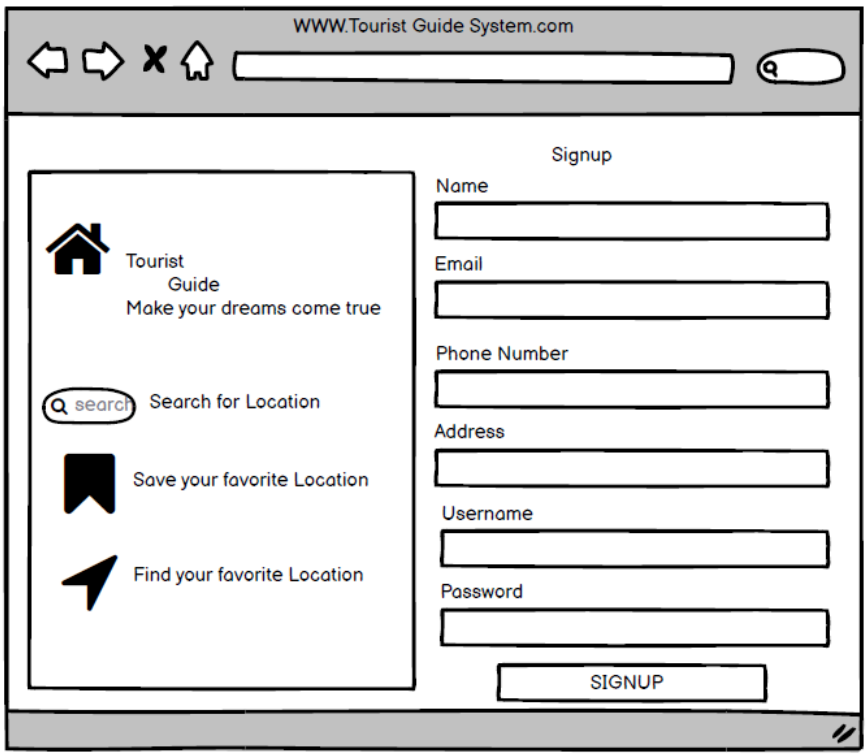

Figure 3.10 Wireframes design of Register Page for Tourist Guide

3.3 Algorithm details

Haversine algorithms

The haversine formula determines the great-circle distance between two points on a sphere given their longitudes and latitudes. Important in navigation, it is a special case of a more general formula in spherical trigonometry, the law of haversines, that relates the sides and angles of spherical triangles.

Fig: Working mechanism of Haversine Algorithm in Tourist Guide

CHAPTER: 4

IMPLEMENTATION AND TESTING

4.1. Implementation

4.1.1. Tools Used (CASE tools, Programming language, Database platforms)

Following are the tools and framework used for the accomplishment of this project:

Front End Tools

- **HTML**
  In Tourist Guide System, html is used for creating different webpage and sites. It is used to create and structure sections, headings, links, paragraphs using various tags and elements. We also define headers, paragraphs, links, and images of sponsor management system by using html.
- **CSS**
  In Tourist Guide System, css is used for designing different tags of html. It is also used to design different component by the help of class and id. Different css are used such as inline css, internal css, and external css to design this system. It is used for defining the styles for web pages. By using css, we can control the text color, font style, the spacing between paragraphs, sizing of columns, layout designs, and many more.
- **JavaScript**
  In Tourist Guide System, JavaScript is used for client-side validation and to make dynamic, interactive and responsive web pages. It is used to add dynamic behavior to the webpage and add special effects to the webpage.

Back End Tools

- **PHP**
  In Tourist Guide System, PHP is used for the backend purpose and for making dynamic web pages. It is used for server side scripting purpose to add connectivity to the database and also used to encrypt the data, validate the user data, confirm

user to go to certain pages, login pages. It also includes add, update and delete the data from the database.

Server

- **APACHE SERVER**
  In Tourist Guide system, apache server is used to run php files and creating fast and dynamic web pages.

Database

- **MYSQL**
  MySQL is use for storing all the information required to the database in Tourist Guide system. It is used for performing CRUD operation such as create, delete and update data from the database as requested by the user.

Documentation Tools

- **MS Office**
  This is used for writing and editing the documentation of Tourist Guide system.
- **Draw.io**
  This is used to generate diagrams for system analysis and design of Tourist Guide system. Diagrams were created using this tool in order to save time since all components are available with drag and drop functions.

4.1.2. Implementation details of modules

Different modules of this system are described as below:

User Module

In user module, user can register into the system by entering all the details information and then they can log into the system with valid username and password. After login success, the user can see the details about different tourist places.

Register Module

In register module, we have implemented two

4.2 Testing

System testing is done by giving different training and testing datasets. This test is done to evaluate whether the system is providing accurate summary or not. During the phase of the development of the system, our system is tested time and again. The series of testing conducted are as follow:

4.2.1 Test Cases for Unit Testing

In unit testing, we designed the entire system in modularized pattern and each module is tested. Until we get the accurate output from the individual module, we work on the same module. The input forms is tested so that they do not accept invalid input.

User Registration

Table 4.1: Test case for User Registration of Tourist Guide

S.No.	Test Name	Input	Expected Output	Actual Output	Test Result
1.	Enter Invalid name, address, phone no, username, password and click register button	Name = Salina Acharya Address = Phone_no = 9861865237 Username = Salina123 Password = Salinann	Enter address	Registration Failed	Pass
2.	Enter valid name, address, phone no, username, password and click register button	Name = Salina Acharya Address = Patan Phone_no = 9861865237 Username = Salina123 Password = Salina123	Registration successful	Registration Success	Pass

User Login

Table 4.2: Test case for User Login of Tourist Guide

S.No.	Test Name	Input	Expected Output	Actual Output	Test Result
1.	Enter Valid Username and Password and click login button	Username: Salina 123 Password: Ssalinna	Login Successful and redirect to dashboard	Redirect to Dashboard	Pass
3.	Enter Username and Invalid password	Username: Salina123 Password: Salina	Login Failed And credential not match is shown	Login Failed	Pass

CHAPTER: 5

CONCLUSION AND FUTURE RECOMMENDATIONS

5.1. Lesson Learnt / Outcome

Every project makes us to learn and gain the knowledge in different aspects. In the following project, I have learned lots of problem-solving skills and learn things finding the solution on own, proper use of guidelines, communication and writing skills.

- **Problem Solving Skills**
  From this project, I have learned lots of problem-solving skills and also learned to recognize different errors occur in this system and solve it.
- **Writing Skills**
  I have learned how to prepare proposal and documentation related with project and also learned to use different case tools for use case diagram, schema diagram, data flow diagram, and ER- diagram and so on.
- **Manage time**

  The most important lesson learnt was management of time according to the complexity of the system components i.e. know which components to prioritize.

5.2 Conclusion

After the successful completion of the project, this system will be able to provide the meticulous information about the various places related to tourism and travelling. Users can also view where the location lies in the Google map which can be directed from the website. Users can also save the location to favorites if they like the location. Which helps the users plan and organize their trip and find the activities they prefer.

5.3 Future Recommendations

The development project could have been more efficiently handled with regards to design and development. The documentation process might have been better programming the project prior to any documentation.

REFERENCES

[1] Technoheaven. https://www.technoheaven.net/travel-management-system.aspx.

[2] A. Davies, *International Journal of Computer Science and Mobile Computing,* vol. 8, no. 10, pp. 12-17, October 2019.

[3] "tutorialspoint," https://www.ukessays.com/essays/information-technology / methodology - the-waterfall-model-information-technology-essay..

[4] "altexsoft,": https://www.altexsoft.com/blog/non-functional-requirements/.

[5] "geeksforgeeks," https://www.geeksforgeeks.org/types-of-feasibility-study-in-software - project-development/.

.