

ONLINE TOURIST GUIDE

**A Project Report Submitted
In Partial Fulfillment of the Requirements
for the Degree of**

MASTER OF COMPUTER APPLICATIONS

**by
Ankit Sharma
(1900290149018)**

**Under the Supervision of
Dr. Sangeeta Arora**

KIET Group of Institutions, Ghaziabad



**to the
FACULTY OF MCA**

**DR. APJ ABDUL KALAM TECHNICAL UNIVERSITY
(Formerly Uttar Pradesh Technical University) LUCKNOW**

July 2021

DECLARATION

I hereby declare that the work presented in this report entitled "Online Tourist Guide", was carried out by me. I have not submitted the matter embodied in this report for the award of any other degree or diploma of any other University or Institute.

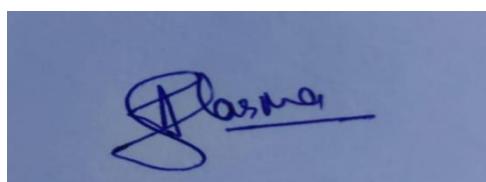
I have given due credit to the original authors/sources for all the words, ideas, diagrams, graphics, computer programs, experiments, results, that are not my original contribution. I have used quotation marks to identify verbatim sentences and given credit to the original authors/sources.

I affirm that no portion of my work is plagiarized, and the experiments and results reported in the report are not manipulated. In the event of a complaint of plagiarism and the manipulation of the experiments and results, I shall be fully responsible and answerable.

Name : Ankit Sharma

Roll. No. : 1900290149018

Branch : Master of Computer Application



CERTIFICATE

Certified that **Ankit Sharma (1900290149018)** has carried out the project work presented in this report entitled "**TODO**" for the award of **Master of Computer Application** from Dr. A.P.J. Abdul Kalam Technical University, Lucknow under my supervision. The report embodies result of original work, and studies are carried out by the student himself and the contents of the report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University.

Dr. Sangeeta Arora

Professor

Dept. of Computer Applications

KIET Group of Institutions, Ghaziabad

External Examiner

Dr. Ajay Kumar Srivastava

Professor & Head

Department of Computer Applications

KIET Group of Institutions, Ghaziabad

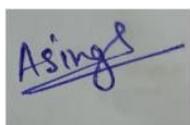
Date:

CERTIFICATE



A 152 Block- A, Sector 63
Noida, UP (India) 201301

Certified that Ankit Sharma has carried out the project work presented in this report entitled "Online Tourist Guide" for the award of Master of Computer Application from Dr. A.P.J. Abdul Kalam Technical University, Lucknow under my supervision. The report embodies result of original work, and studies are carried out by the student himself and the contents of the report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University.



Mr. Aditya Singh

Designation: Full Stack Developer

Company name: Sysquo Innovation (P) Ltd.

Address: 22-H, E block, New Ashok Nagar, Delhi-110096

Date: 20/07/2021

Contact: 0120-4326-478
Email: hello@sysquoinnovation.com

ABSTRACT

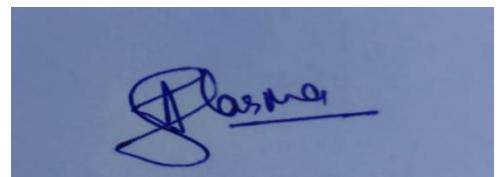
The recent past showed a greater interest in recommender techniques. Now-a-days there are many travel packages existing from different websites to almost all the places over the world. A customer finds it very difficult to search for the best package as he/she has to browse multiple websites, contact many travel agents and etc. which is a tedious process and is time consuming. There should be a system where the user should find the best package on the Internet with a single click.

Tourist Guide is a web based portal which help the tourist or any other user to get accurate and best data in no time. This system is helpful for the person who loves to travel, who want to explore new places and when visiting some new places and cities. The user can explore the world by getting the information of any particular place such as name of the place, images, address, location on maps, description etc. It is design to provide information of any particular place. In this system, the traveler or tourist can easily travel to the new cities, states or even country.

ACKNOWLEDGEMENT

Success in life is never attained single handedly. My deepest gratitude goes to my Project supervisor, **Dr. Sangeeta Arora, Professor, Department of Computer Applications** for her guidance, help and encouragement throughout my research work. Their enlightening ideas, comments, and suggestions. Words are not enough to express my gratitude for his insightful comments and administrative help at various occasions. Fortunately, I have many understanding friends, who have helped me a lot on many critical conditions.

Finally, my sincere thanks go to my family members and all those who have directly and indirectly provided me moral support and other kind of help. Without their support, completion of this work would not have been possible in time. They keep my life filled with enjoyment and happiness.



**Ankit Sharma
1900290149018**

TABLE OF CONTENTS

	Page No.
Declaration	ii
Certificate	iii
Certificate	iv
Abstract	v
Acknowledgement	vi
List of Figures	ix-x
List of Tables	xi
CHAPTER 1: INTRODUCTION	1-3
1.1 Project Description	1-2
1.2 Project Purpose	2
1.3 Tools/Environment used	3
CHAPTER 2 : REQUIREMENT GATHERING	4-10
2.1 System analysis	4-5
2.2 Feasibility study	6
2.3 Fact finding technique	7-8
2.4 Scheduling	9-10
CHAPTER 3 : REQUIREMENT SPECIFICATIONS	11-17
3.1 Hardware Requirements	11
3.2 Software Requirements	11-14
3.3 SRS of the project	15-17
3.3.1 Introduction	15
3.3.2 Information Description	15-16
3.3.3 Functional Description	16-17
CHAPTER 4 : DESIGN	18-31
4.1 Entity Relationship Diagram	18-19
4.2 Data Flow Diagram	20-25
4.2.1 0 level Data Flow Diagram	20-21
4.2.2 1 st level Data Flow Diagram	22
4.2.3 2 ND level Data Flow Diagram	23-25
4.3 Data Dictionary	26-29

4.3.1 Table used	26-28
4.3.2 Database Design	29
4.4 Class Diagram	30
4.5 Process Logic	31
CHAPTER 5 : USER INTERFACES	32-49
5.1 User Interface	32-49
CHAPTER 6 : TESTING AND VALIDATION CRITERIO	50-69
6.1 Error Handling	50-51
6.2 Parameter Passing	52
6.3 Validation Checks	53
6.4 Testing	53-63
6.5 Input/Output	64-69
CHAPTER 7 : LIMITATION AND FUTURE SCOPE	70-71
7.1 Limitation	70
7.2 Future Scope	71

LIST OF FIGURES

1. FIG 2.1 Process Design of System Analysis	5
2. FIG 2.2 Gantt Chart	9
3. FIG 4.1 ERD For Online Tourist Guide	19
4. FIG 4.2 0 Level DFD	21
5. FIG 4.3 1 Level DFD	22
6. FIG 4.4 2 Level DFD	23-25
7. FIG 4.5 Database Design	29
8. FIG 4.6 Class Diagrams	30
9. FIG 4.7 Process Logic	31
10. FIG 5.1 Home page	32
11. FIG 5.2 Login page	32
12. FIG 5.3 Registration page	33
13. FIG 5.4 Photo gallery	33
14. FIG 5.5 About us	34
15. FIG 5.6 Contact us	34
16. FIG 5.7 Home page for registered users	35
17. FIG 5.8 Explore places	35
18. FIG 5.9 Explore places after selecting page	36
19. FIG 5.10 Tour plan	36
20. FIG 5.11 ViewTourPlans	37
21. FIG 5.12 Edit Plans	37
22. FIG 5.13 Setting	38
23. FIG 5.14 Updatedetails	38
24. FIG 5.15 Feedback page	39
25. FIG 5.16 Query pagr	39
26. FIG 5.17 Complan page	40
27. FIG 5.18 Admin Home	40
28. FIG 5.19 Manage Explore Places	41
29. FIG 5.20 Add explore place	41
30. FIG 5.21 Update explore place	42
31. FIG 5.22 Delete explore place	42

32. FIG 5.23 Manage Tourist Guide	43
33. FIG 5.24 Add tourist Guide	43
34. FIG 5.25 Update Tourist Guide	44
35. FIG 5.26 Delete Tourist Guide	44
36. FIG 5.27 Manage Staff Details	45
37. FIG 5.28 Add Staff	45
38. FIG 5.29 Update Staff	46
39. FIG 5.30 Delete Staff	46
40. FIG 5.31 View Tourist Profiles	47
41. FIG 5.32 View Tour Plans	47
42. FIG 5.33 View Feebacks	48
43. FIG 5.34 View Queries	48
44. FIG 5.35 View Complaints	49
45. FIG 6.1 Execution Flow Chart	54
46. FIG 6.2 Unit Testing	56
47. FIG 6.3 Integration Testing	57
48. FIG 6.4 Bottom up integration	58
49. FIG 6.5 Test Report	61
50. FIG 6.6 Input of Registration page of user	64
51. FIG 6.7 Output of Registration page of user	65
52. FIG 6.8 Input of Login page of user	65
53. FIG 6.9 Output of Login page of user	65
54. FIG 6.10 Input at time of making tour plan from user	66
55. FIG 6.11 Output at time of making tour plan from user	66
56. FIG 6.12 Input at time of adding places by admin	67
57. FIG 6.13 Output at time of adding places by admin	67
58. FIG 6.14 Input at time of adding tourist guide by admin	68
59. FIG 6.15 Output at time of adding tourist guide by admin	68
60. FIG 6.16 Input at time of adding staff by admin	69
61. FIG 6.17 Input at time of adding staff by admin	69

LIST OF TABLES

TABLE 4.1 TOURISTPROFILEDETAILS	26
TABLE 4.2 EXPOREPLACESDETAILS	26
TABLE 4.3 STAFFDETAILS	27
TABLE 4.4 GUIDEDETAILS	27
TABLE 4.5 TOURPLANDETAILS	27
TABLE 4.6 FEEDBACKDETAILS	28
TABLE 4.7 QUERYDETAILS	28
TABLE 4.8 COMPLAINTDETAILS	28
TABLE 4.9 TBLLOGINDETAILS	28

CHAPTER 1

INTRODUCTION

1.1 PROJECT DESCRIPTION

Tourist Guide is a web based portal which help the tourist or any other user to get accurate and best data in no time. This system is helpful for the person who loves to travel, who want to explore new places and when visiting some new places and cities. The user can explore the world by getting the information of any particular place such as name of the place, images, address, location on maps, description etc. It is design to provide information of any particular place. In this system, the traveler or tourist can easily travel to the new cities, states or even country.

Firstly, all the users have to register with their basic details (name, address, phone number etc.). After successfully registration the tourist profile will generate. Now user can login into the system with valid user ID and password. After login user will get the places recommendation where user can travel. By clicking on the recommended places the user will get the description of the place along with pictures, address and the available guides for that place. Every place have several guides with different qualities and qualifications. The guide can make traveling easy for the user or tourist by giving tourist the valuable knowledge about any particular place. Now according to the choice of user, user can make the tour plan. Tour plan is created by user by which they schedule their tour date, time and also choose the guide according to their need for the tour. User also gives their valuable feedback to admin regarding the working of the system. User can perform query and if user have any complaint regarding working of system or any complaint about guide they can also register complain.

There is an admin panel in the system. The admin will add new place with their details such as name of the place, images, address, location on maps, description etc. Admin regularly update the information of the place and can view all the added places. Admin can also edit

the details of the place (if required). Admin can also update guide information. Admin appoint guide for every places. Admin can view all the feedback messages from the registered users. Admin see query messages from users and resolve their query. Admin also see complain messages from users and handle or resolve them.

1.2 PROJECT PURPOSE

This system has the following features:

- i. This system is designed for the tourist who wants to explore different places.
- ii. Tourist can get the best and accurate data about any place in no time.
- iii. Tourist can select the place according to their desire and make a tour plan and enjoy travelling.
- iv. This system provides guide to the tourist. All the guides knows many languages. Tourist can choose their guide according to the language they know so as to make communication better between guide and the tourist.
- v. This system also helps the person who is going to visit a new places, cities or even country and make that person familiar to the place where he/she will go.
- vi. This system also take feedback from their users.
- vii. This system make travelling easy.
- viii. Exploring became easy with this system.

1.3 Tools/Environment Used:

HARDWARE USED

PROCESSOR- I5 6th generation

RAM- 8 GB

Monitor – HCL LCD

Hard disk – 500 GB

Key board – HP

SOFTWARE USED

Visual studio -2012

SQL server 2012

Operating System – windows 10

Ms Office -2013 8

CHAPTER 2

REQUIREMENT GATHERING

2.1 System Analysis

System Analysis by definition is a process of systematic investigation for the purpose of gathering data, interpreting the facts, diagnosing the problem and using this information to either build a completely new system or to recommend the improvements to the existing system.

A satisfactory system analysis involves the process of examining a business situation with the intent of improving it through better methods and procedures. In its core sense, the analysis phase defines the requirements of the system and the problems which user is trying to solve irrespective of how the requirements would be accomplished.

System development can generally be thought of having two major components: systems analysis and systems design. In System Analysis more emphasis is given to understanding the details of an existing system or a proposed one and then deciding whether the proposed system is desirable or not and whether the existing system needs improvements. Thus, system analysis is the process of investigating a system, identifying problems, and using the information to recommend improvements to the system.

Process Design of System Analysis

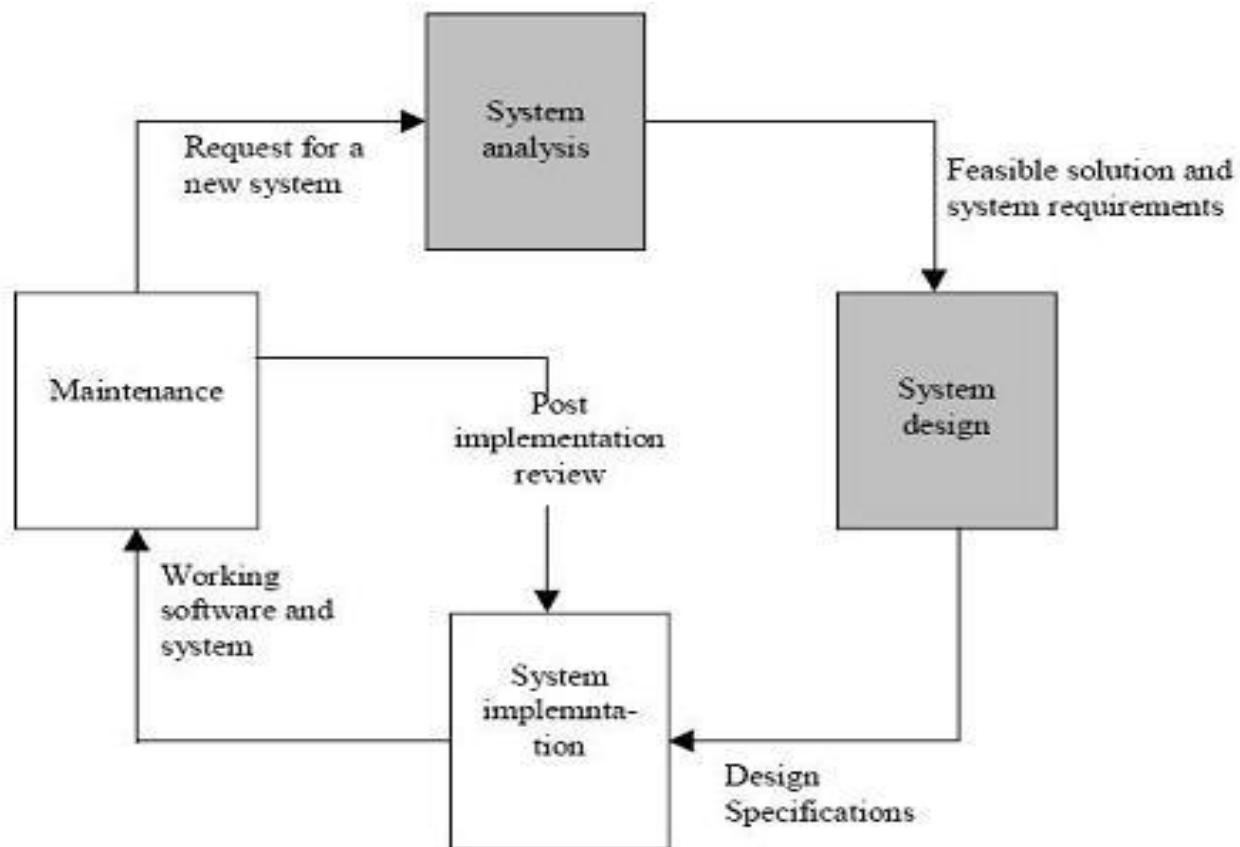


FIG 2.1

This figure shows flow of process between different modules.

2.2 Feasibility Study

Feasibility is the determination of whether or not a project is worth doing. The process followed in making this determination is called a feasibility study.

Types of feasibility

- I. **Technical Feasibility:** -It is concerned with the availability of hardware and software required for the development of the system. The technical needs of the system may vary considerable, but might include:
 - The facility to produce outputs in a given time.
 - Response time under certain condition.
 - Ability to process a certain volume of transaction at a particular speed.
 - Facility to communication data to distinct location.
- II. **Operational Feasibility:** - Operational feasibility is all about problems that may arise during operations. There are two aspects related with this issue :-
 - What is the probability that the solution developed may not be put to use or may not work?
 - What is the inclination of the management and end users towards the solution?
- III. **Economic Feasibility:** - It is the measure of cost effectiveness of the project. The economic feasibility is nothing but judging whether the possible benefit of solving the problem is worth right or not.
- IV. **Social Feasibility:** - Social feasibility is determined a proposed project will be acceptable to the people or not.
- V. **Management Feasibility:** - This type of feasibility determines a proposed project will be acceptable to management. If Managements does not support or gives a negligible support to it. The analyst will tend to view the project as a non-feasible one.
- VI. **Legal Feasibility:** - Legal feasibility studies issues arising out of the need to the development of the system. The possible consideration might include copyright law, labor law, antitrust legislation, foreign trade, regulation etc.

2.3 Fact Finding Techniques

To Study any system the analyst needs to do collect facts and all relevant information the facts when expressed in quantitative form are termed as data. The success of any project is depended upon the accuracy of available data. Accurate information can be collected with help of certain methods/ techniques. These specific methods for finding information of the system are termed as fact finding techniques. Interview, Questionnaire, Record View and Observations are the different fact finding techniques used by the analyst. The analyst may use more than one technique for investigation.

Interview

This method is used to collect the information from groups or individuals. Analyst selects the people who are related with the system for the interview. In this method the analyst sits face to face with the people and records their responses. The interviewer must plan in advance the type of questions he/ she is going to ask and should be ready to answer any type of question. He should also choose a suitable place and time which will be comfortable for the respondent.

The information collected is quite accurate and reliable as the interviewer can clear and cross check the doubts there itself. This method also helps gap the areas of misunderstandings and help to discuss about the future problems. Structured and unstructured are the two sub categories of Interview. Structured interview is more formal interview where fixed questions are asked and specific information is collected whereas unstructured interview is more or less like a casual conversation where in-depth areas topics are covered and other information apart from the topic may also be obtained.

Questionnaire

It is the technique used to extract information from number of people. This method can be adopted and used only by an skillful analyst. The Questionnaire consists of series of questions framed together in logical manner. The questions are simple, clear and to the point. This method is very useful for attaining information from people who are concerned with the usage of the system and who are living in different countries. The questionnaire can be mailed or send to people by post. This is the cheapest source of fact finding.

Record view

The information related to the system is published in the sources like newspapers, magazines, journals, documents etc. This record review helps the analyst to get valuable information about the system and the organization.

On-Site Observation

Unlike the other fact finding techniques, in this method the analyst himself visits the organization and observes and understand the flow of documents, working of the existing system, the users of the system etc. For this method to be adopted it takes an analyst to perform this job as he knows which points should be noticed and highlighted. In analyst may observe the unwanted things as well and simply cause delay in the development of the new system.

2.4 Scheduling

2.4.1 Gantt chart:

Gantt chart is a project control technique that can be used for several purposes including scheduling and planning. Gantt chart is also known bar chart with each box representing an activity.

We estimated the no. of weeks required for each as follows :

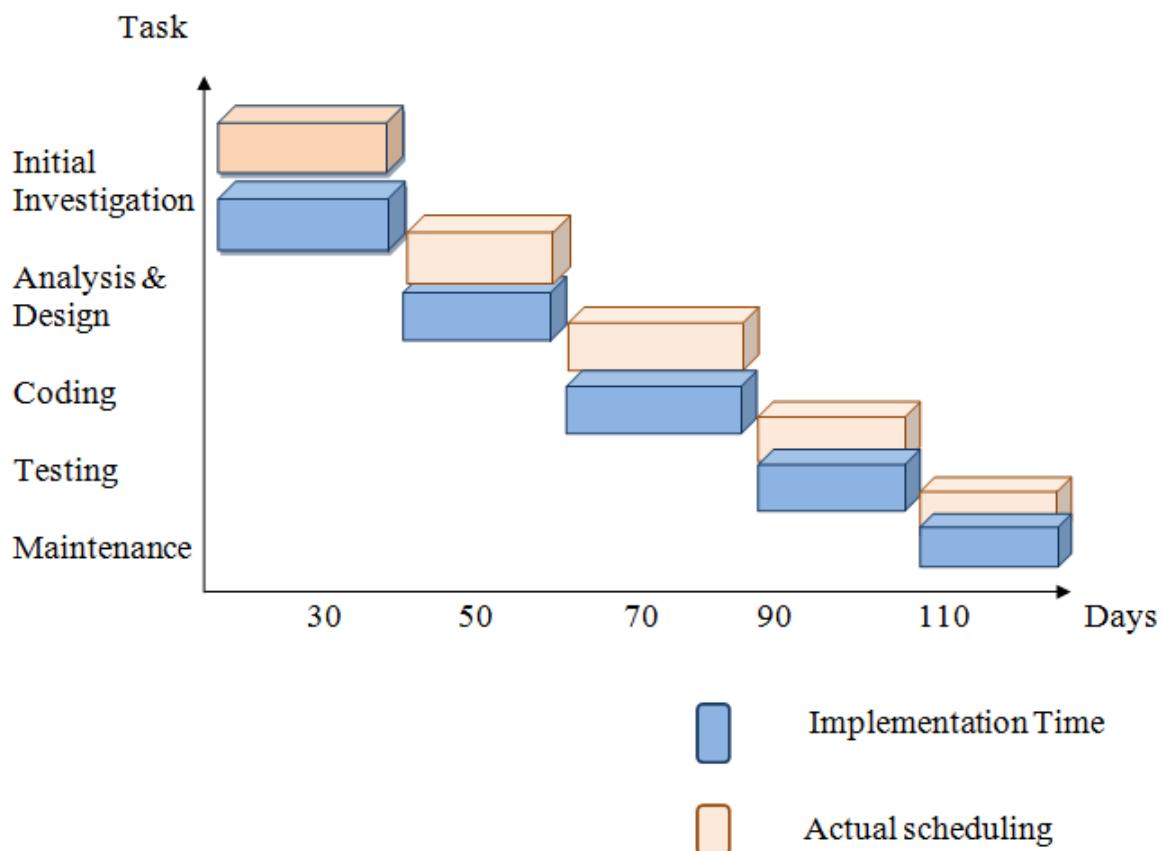


Fig 2.2 GANTT CHART

2.4.2 Program Evaluation and Review Technique (PERT)

Like the Gantt chart, PERT makes use of tasks. Like milestone charts, it shows achievements. These achievements however are not task achievements. They are terminal achievement, called events. Arrows are used to represent tasks and circles represent the beginning or completion of a task. The PERT chart uses these paths and events to show the interrelationships of project activities.

The events in my project can be categorised as:

1. Meeting to the Employees of company to understand the project.
2. Table Designing
3. Form Designing
4. Writing Codes
5. Designing Reports
6. Testing the project
7. Implementation of project

Each task is limited by an identifiable event. An event has no duration; it simply tells you that the activity has ended or begun. Each task must have a beginning and an ending event. A task can start only after the tasks depends on have been completed. PERT does not allow “looping back” because a routing that goes back to a task does not end.

CHAPTER 3

REQUIREMENT SPECIFICATIONS

3.1 HARDWARE REQUIREMENTS

- RAM: 8GB
- Operating system: Windows (32bit or 64 bit)

3.2 SOFTWARE REQUIREMENTS

.NET FRAMEWORK:-

Features

The .NET Framework is an integral Windows component that supports building and running the next generation of applications and XML Web services. The .NET Framework is designed to fulfill the following features:

- To provide a consistent object-oriented programming environment whether object code is stored and executed locally, executed locally but Internet-distributed, or executed remotely.
- To provide a code-execution environment that minimizes software deployment and versioning conflicts.
- To provide a code-execution environment that promotes safe execution of code, including code created by an unknown or semi-trusted third party.
- To provide a code-execution environment that eliminates the performance problems of scripted or interpreted environments.

- To make the developer experience consistent across widely varying types of applications, such as Windows-based applications and Web-based applications.
- To build all communication on industry standards to ensure that code based on the .NET Framework can integrate with any other code.

The .NET Framework has two main components: the common language runtime and the .NET Framework class library.

The .NET Framework can be hosted by unmanaged components that load the common language runtime into their processes and initiate the execution of managed code, thereby creating a software environment that can exploit both managed and unmanaged features. The .NET Framework not only provides several runtime hosts, but also supports the development of third-party runtime hosts.

- 1. The Parallel Extensions for The .NET Framework will be built into mscorelib.dll.**

The fact that PFx will be part of the core .NET library says a lot about how much faith and support it's getting within Microsoft. BTW, here are some really great demos for PFx in .NET 4.5

- 2. Code contracts.**

Code contracts allow you to assert truths about your code as if you are writing a unit test. But these assertions live within your production code and are both verified by the compiler as well as the runtime

- 3. The WPF and Silver light designers mostly work.**

Now this shouldn't be a point to make me smile or get excited about, but it is. The pain and suffering around the Visual Studio support for WPF and Silver light designers has been so bad that a mostly-working, and sometimes truly innovative design-time experience within Visual Studio gives me real hope for these technologies.

- 4. WF has a rehostable designer (really, they mean it this time).**

There are some great uses for giving regular users a WF designer experience with the right granularity of activities. Now it's much easier. Here's an app that rehosts the designer:

```
public Main Window ()
```

```

{
    InitializeComponent ();

    Workflow Designer wd =new WorkflowDesigener ();
    Grid.SetColumn(wd.View, 1);
    Wd.Load (new MyActivity ());
    gridDesigner.Children.Add (wd.View);
}

```

5. ASP.NET MVC has wicked JavaScript support.

JQuery is there by default. That's awesome. But there is also a class similar to the Html class (for HTML helpers) called Ajax. This static class has functions like Ajax.ActionLink and effectively brings the functionality of Update Panel to MVC.

Microsoft SQL Server 2012

Overview of New Features in Microsoft SQL Server 2012

Microsoft SQL Server 2012 is a relational database management system (RDBMS) designed for the enterprise environment. Like its predecessors, SQL Server 2012 comprises a set of programming tensions to enhance the Structured Query Language (SQL), a standard interactive and programming language for getting information from and updating a database. Microsoft SQL Server 2012, which supplants SQL Server 2008 R2, offers new capabilities, notable among them the following:

- **Column Store indexes:** Read-only indexes that group data, streamlining the processing of large data warehouse queries.
- **Support for Windows Server Core:** This is a stripped-down version that places a far lower demand on computer resources than a full install does.
- **Power View:** Makes it possible to generate mash-ups of business intelligence (BI) reports.
- **Enhanced Auditing:** Users can customize their audit logs to accommodate a wider range of events with greater flexibility than was previously possible.
- **Always On:** Users can fail over multiple databases and read secondary copies, enhancing disaster recovery (DR) operations.

- **Distributed Replay:** A workload can be taken from a production server and played on another server to test it under realistic conditions before deploying it.

Features of SQL Server 2012

SQL Server 2012 is the latest release of Microsoft SQL Server. There are a number of compelling features in this version for both developers and DBAs alike. Here are the Top 10 new features in SQL Server 2012:

1. Always On Availability Groups
2. Windows Server Core Support
3. Column store Indexes
4. User-Defined Server Roles
5. Enhanced Auditing Features
6. BI Semantic Model
7. Sequence Objects
8. Enhanced PowerShell Support
9. Distributed Replay
10. Power View
11. SQL Azure Enhancements
12. Big Data Support

3.3 SRS of the Project

3.3.1 Introduction:-

Tourist Guide is a web based portal which help the tourist or any other user to get accurate and best data in no time. This system is helpful for the person who loves to travel, who want to explore new places and when visiting some new places and cities. The user can explore the world by getting the information of any particular place such as name of the place, images, address, location on maps, description etc. It is design to provide information of any particular place. In this system, the traveler or tourist can easily travel to the new cities, states or even country.

3.3.2 Information Description:-

Tourist Guide is a web based portal which help the tourist or any other user to get accurate and best data in no time. This system is helpful for the person who loves to travel, who want to explore new places and when visiting some new places and cities. Tourist Guide is a web based portal which help the tourist or any other user to get accurate and best data in no time. This system is helpful for the person who loves to travel, who want to explore new places and when visiting some new places and cities.

Firstly, all the users have to register with their basic details (name, address, phone number etc.). After successfully registration the tourist profile will generate. Now user can login into the system with valid user ID and password. After login user will get the places recommendation where user can travel. By clicking on the recommended places the user will get the description of the place along with pictures, location on map, address and the available guides for that place. User can also search for any particular place. Every place have several guides with different qualities and qualifications. The guide can make traveling easy for the user or tourist by giving tourist the valuable knowledge about any particular place. Now according to the choice of user, user can make the tour plan. Tour plan is created by user by which they schedule their tour date, time and also choose the guide according to their need for the tour. User also gives their valuable feedback to admin regarding the working of the system. User can perform query and if user have any complaint regarding working of system or any complaint about guide they can also register complain.

There is an admin panel in the system. The admin will add new place with their details such as name of the place, images, address, location on maps, description etc. Admin regularly update the information of the place and can view all the added places. Admin can also edit

the details of the place (if required). Admin can also update guide information. Admin appoint guide for every places. Admin can view all the feedback messages from the registered users. Admin see query messages from users and resolve their query. Admin also see complain messages from users and handle or resolve them.

3.3.3 Functional Description :-

Tourist Guide System work with the help of following modules:

- i. Tourist_profile
- ii. Login
- iii. ExplorePlaces
- iv. AdminPanel
- v. TouristGuide
- vi. Tour_plan
- vii. Feedback
- viii. Query
- ix. ComplainMaster

1. **Tourist_Profile:** If any user wants to travel or explore the world, first of all he/she create their own profile. This module is responsible for that operation. User have to fill the registration form by providing his/her basic details like name, address, age, mobile number etc. and submit the form. After that Tourist_Profile is created and user get their valid user ID and password.
2. **Login:** Once the user is registered, he/she login into the system. This module is designed for that operation. After login with valid user ID and password, user get the list of recommended places and can choose any place by clicking on the place -and get the information about it.
3. **ExplorePlaces:** it is designed for the purpose of storing the places and their details such as name of the place, image, address, location on map, description etc. These information are store into the database and the modules access these database. Any registered user can see these places information. Admin can also view the places and update the place details if required.
4. **Admin_Panel:** Admin have the control to access everything on this system. Admin add new places with their details and can also view added places. Admin update the details of the places when required. Admin appoint guide for every

place. Admin access the guide details. Admin can see the feedback messages, complaint messages and query messages from the registered users.

5. **TouristGuide:** It is designed for the purpose of storing the guide details such as guide name, qualification, phone number, places known, languages known etc. These information are store into the database and admin access these database. Guide is provided for every place. A single place can have many guides with different qualities and qualification. User can choose their guide according to their need and explore any particular place with help of guide.
6. **Tour_Plan:** This module is designed for the operation of tour planning. Registered user can plan their tour by selecting tour date, time, places and the guide according to their need. After this the schedule or tour plan will generate.
7. **Feedback:** This module is responsible for feedback purpose. User give their valuable feedback about working of the system. Admin will access this module and read the feedback messages and can give reply also to the user.
8. **Query:** This module is responsible for query purpose. User may have queries related to the working of the system so they user can perform query by giving query message and admin resolve the query.
9. **ComplaintMaster:** This module is responsible for complaint purpose. If user have any complaint regarding working of system or any complaint about guide they can register complain and admin will see the complaint messages and handle it.

CHAPTER 4

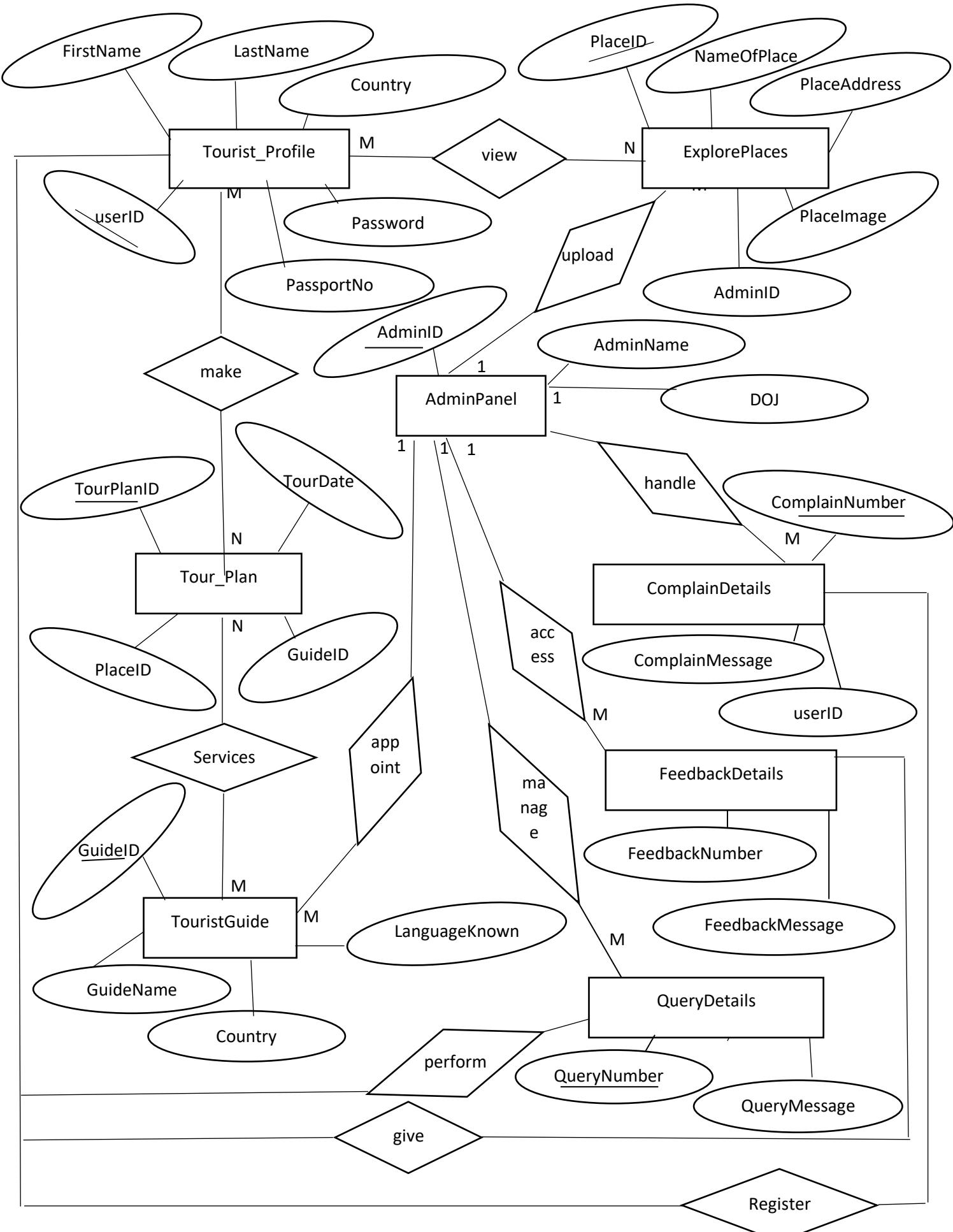
DESIGN

4.1 ENTITY RELATIONSHIP DIAGRAM

An ER diagram is a model that identifies the concept or entities that exist in a system and the relationships between those entities. An ERD is often used as a way to visualize a relational database: each entity represents a database table and the relationship lines represent the keys in one table that point to specific records in related tables.

Advantages of ER diagram

- Professional and faster Development.
- Productivity Improvement.
- Fewer Faults in Development.
- Maintenance becomes easy.



4.2 DATA FLOW DIAGRAM

It is a graphical representation of flow of data through a system. In this diagram, the external entities provide input data for the processing. During the processing, some intermediate data is generating. After final processing, the final output data is generating.

Rules of making DFD: - there are following seven rules for the construction of data flow diagram

- 1) Arrow should not cross each other.
- 2) Square, circles, and files must bear names.
- 3) Decomposed data flow must be balance.
- 4) No two data flows, square or circles can have the same name.
- 5) Draw all data flows around the outside of the diagram.
- 6) Choose meaningful names for data flows processes and data stores.
- 7) Control information such as record counts, passwords and validation requirements are not pertinent to a data flow diagram.

DFD are describe for different level

e.g.:

- i. 0 level DFD
- ii. 1 level DFD
- iii. 2 level DFD

4.2.1 0 level DFD

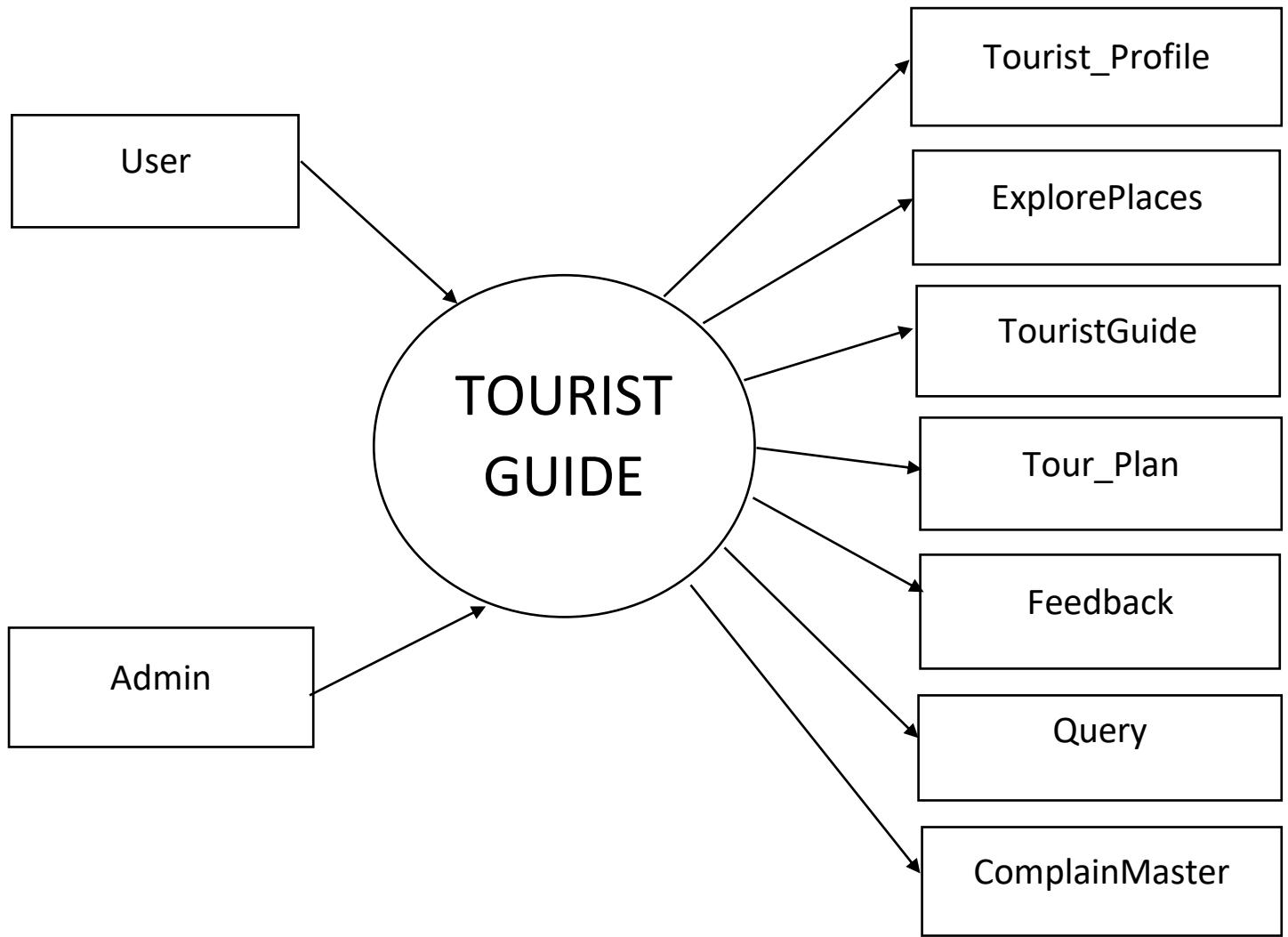


FIG 4.2

This Fig shows O level DFD of Module interaction of Online Tourist Guide.

4.2.2 1st level DFD

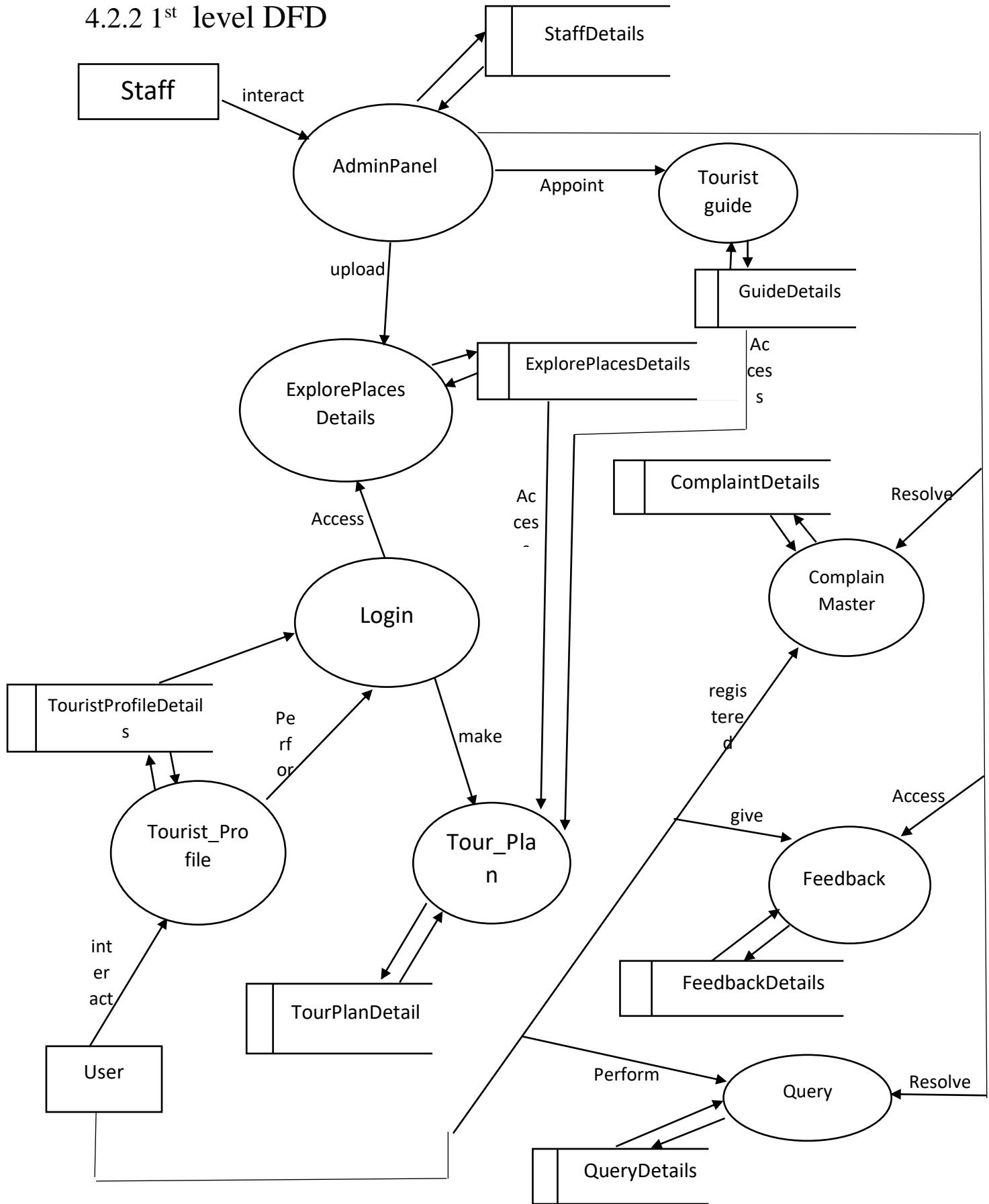


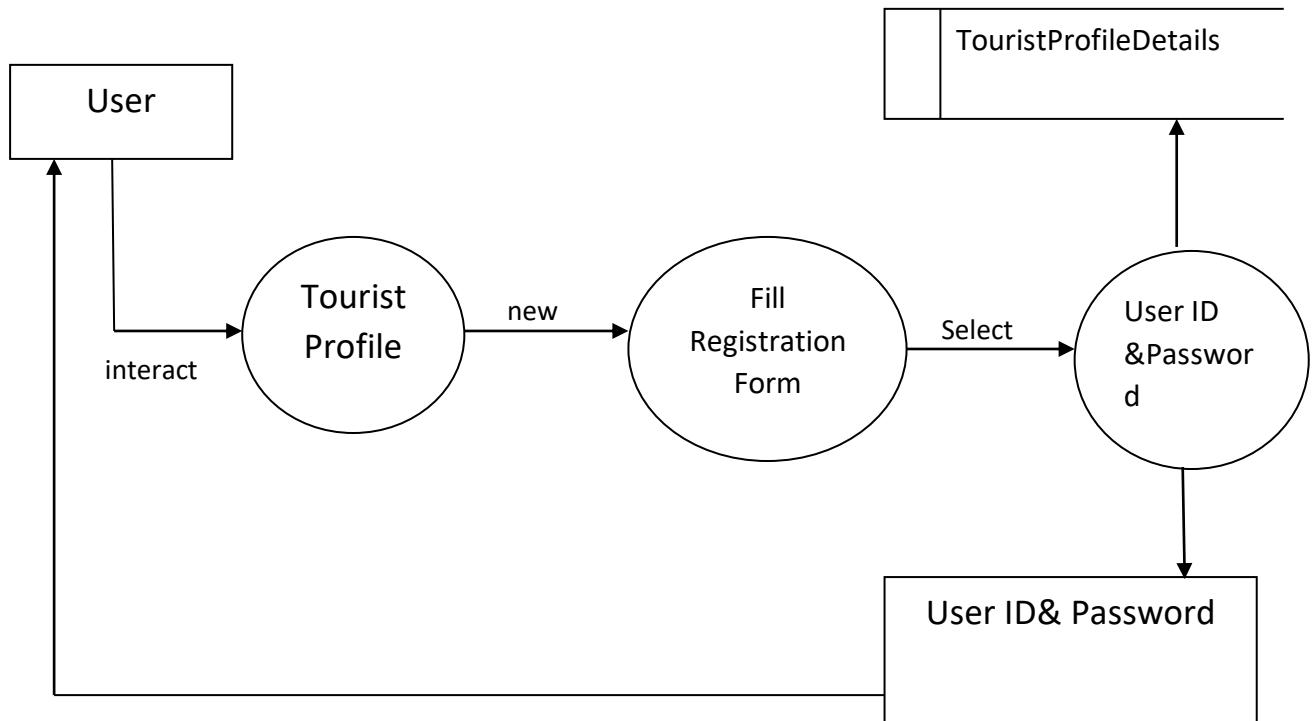
FIG 4.3

This Fig shows 1st level DFD of Module interaction of Online Tourist Guide.

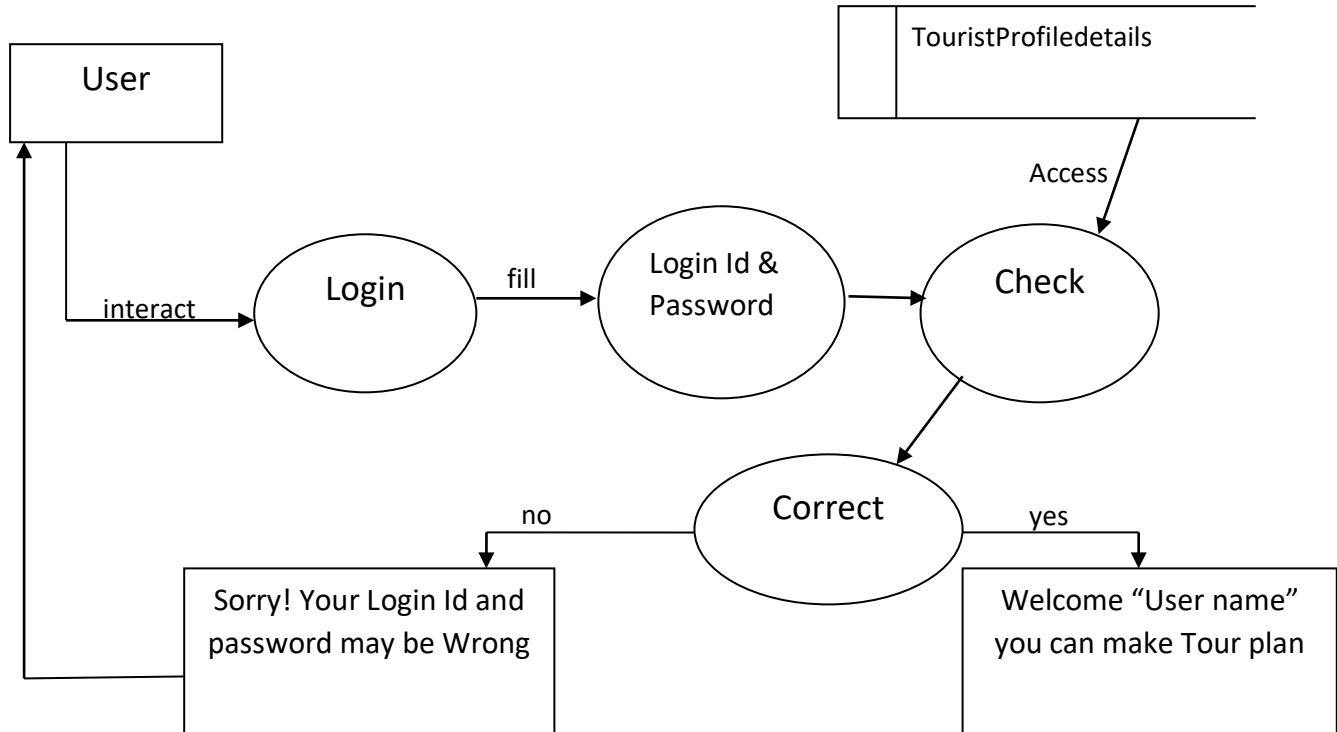
4.2.3 2ND LEVEL DFD

Fig 4.4 2ND LEVEL DFD

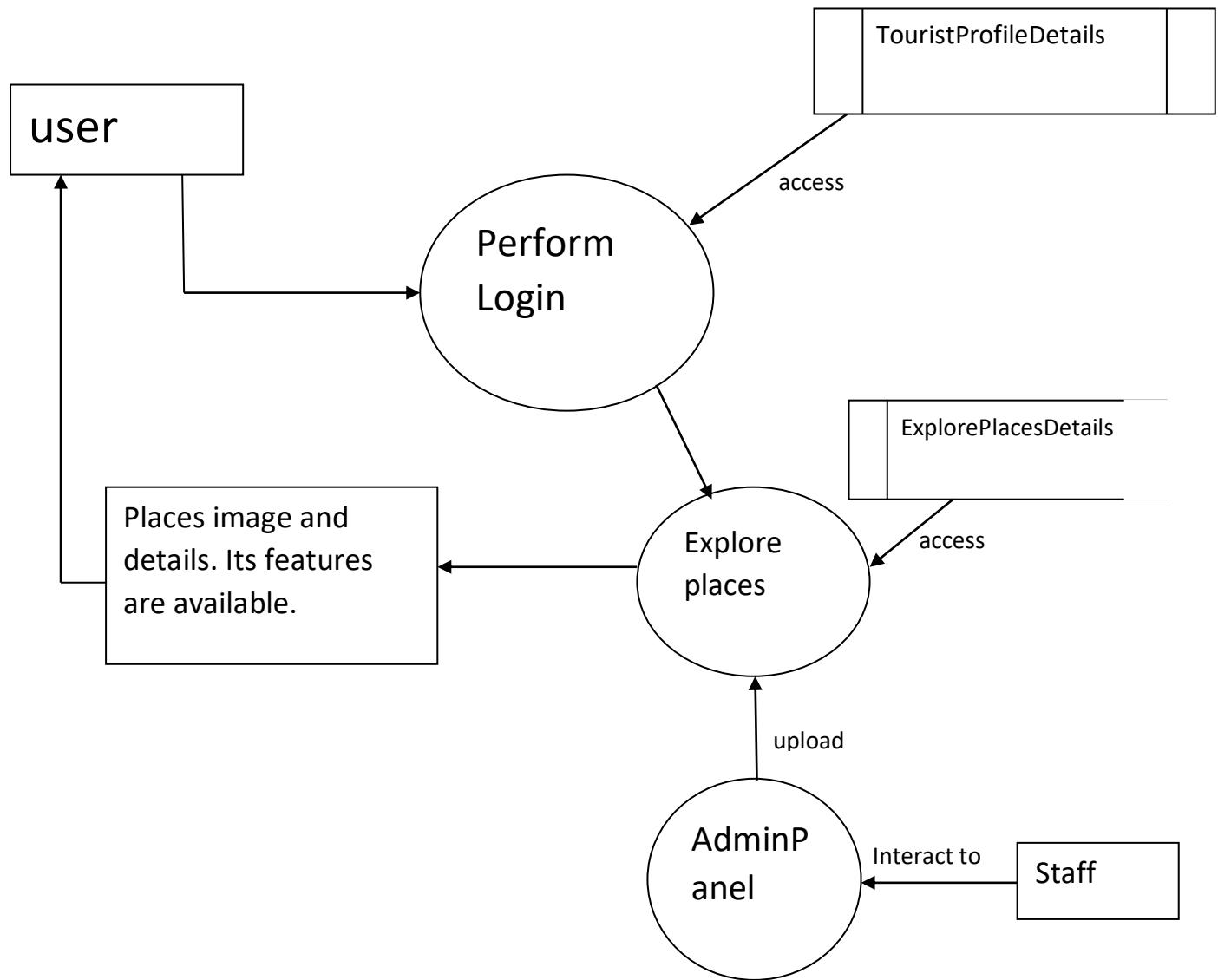
1) Tourist Profile



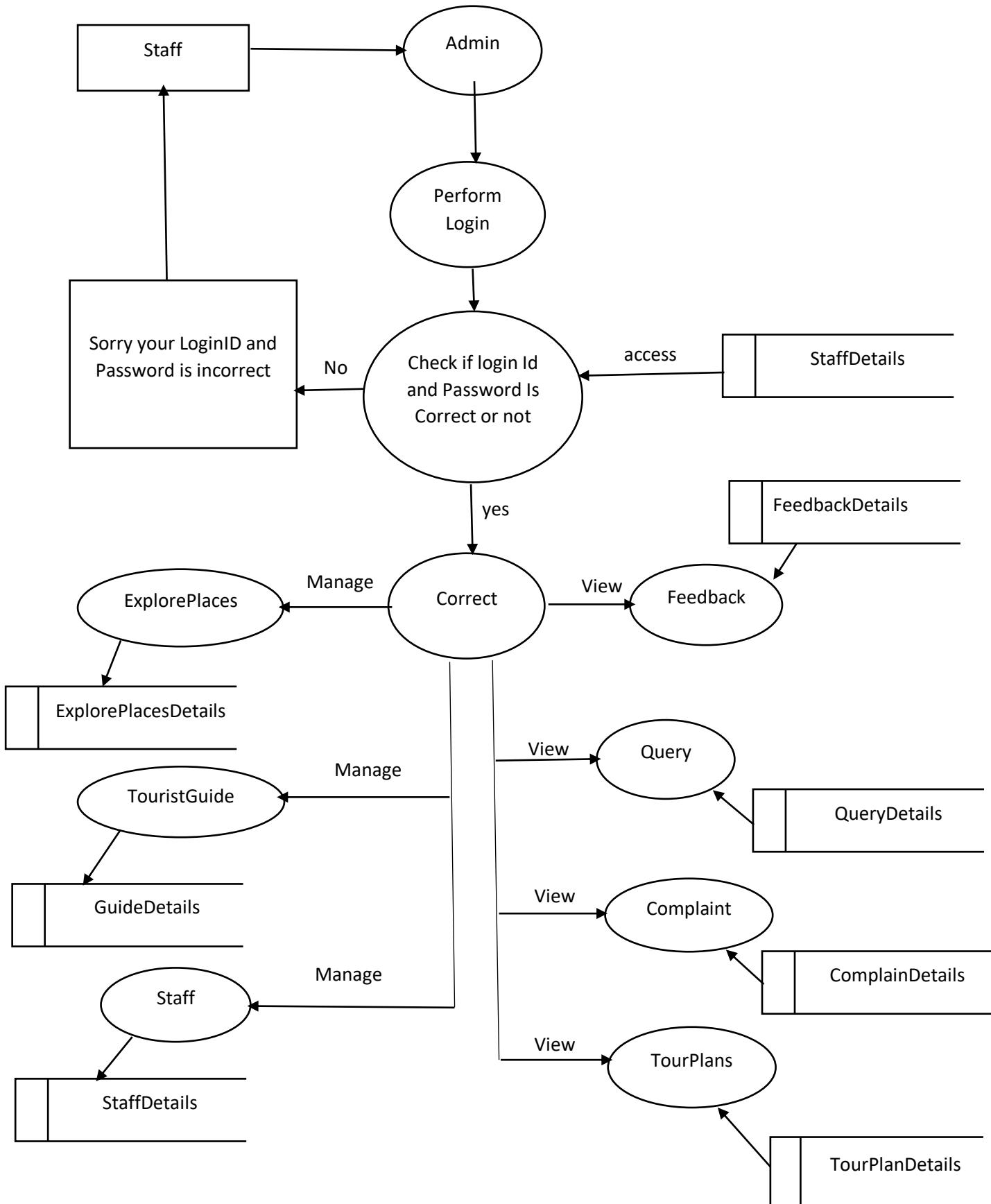
2) Login



3. ExplorePlace



4. Admin Panel



4.3 DATA DICTIONARY

4.3.1 Tables Used

1) TouristProfileDetails

S.No.	Attribute	Data Type	Size	Description
1.	userID	varchar	20	This is the primary key which stores unique ID of the users
2.	FirstName	varchar	50	This stores the first name of the users.
3.	LastName	Varchar	50	This stores the last name of the users.
4.	Address	Varchar	MAX	This stores the address of the users.
5.	Country	Varchar	20	This stores the country name of the users.
6.	EmailId	nvarchar	50	This stores the email address of the users.
7.	MobileNo	Bigint		This stores mobile number of the users.
8.	LanguageKnown	varchar	MAX	This stores the languages known by the users.
9.	Password	Varchar	50	This stores password of the users.
10.	PassportNo.	Varchar	50	This store passport number of the users.
11.	VisaDetails	varchar	50	This will store the visa details of the users.

2) ExplorePlacesDetails

S.No.	Attribute	Data Type	Size	Description
1.	PlaceID	Varchar	20	This is primary key which stores the unique ID for places.
2.	NameOfPlace	Varchar	50	This field stores the name of the place.
3.	PlaceAddress	Varchar	MAX	This filed stores the address of the places.
4.	Country	varchar	20	This field stores the county of the place.
5.	PlaceImage1	varchar	MAX	This stores the image of the place.
6.	PlaceImage2	varchar	MAX	This stores the image of the place.
7.	PlaceImage3	varchar	MAX	This stores the image of the place.
8.	PlaceImage4	varchar	MAX	This stores the image of the place.
9.	Description	Varchar	MAX	This stores the description of the place.
10.	AdminID	Varchar	20	This is foreign key.

3. StaffDetails

S.No.	Attribute	Data Type	Size	Description
1.	AdminID	varchar	20	This is the primary key which stores unique ID of the staff/admin.
2.	AdminName	varchar	50	This stores the name of the admin/staff.
3.	Password	varchar	50	This stores password of the admin/staff.
4.	Age	int	10	This will store age of the admin/staff.
5.	Address	varchar	MAX	This will store address of the admin/staff.
6.	DOJ	date		This will store date of joining of the admin/staff.
7.	Gender	varchar	20	This stores gender of the admin/staff

4. GuideDetails

S.No.	Attribute	Data Type	Size	Description
1.	GuideID	varchar	20	This is the primary key which store unique ID of guide.
2.	GuideName	varchar	50	This will store name of the guide.
3.	PlacesKnown	varchar	MAX	This stores the name of places known by the guide.
4.	LanguagesKnown	varchar	MAX	This stores the languages known by the guide.
5.	Address	varchar	MAX	This stores the address of the guide.
6.	Country	varchar	50	This stores the country of the guide.
7.	Qualification	varchar	50	This stores the qualification of the guide.
8.	Age	int	10	This stores the age of the guide.
9.	MobileNo.	Bigint		This stores the mobile number of the guide.
10.	Availability	varchar	10	This stores if the guide is available or not at current time.
11.	Gender	varchar	20	This stores gender of the guide.

5. TourPlanDetails

S.No.	Attribute	Data Type	Size	Description
1.	TourPlanID	Varchar	20	This is primary key which stores unique ID of tour plan.
1.	TourDate	Date		This will store the date of the tour.
2.	TourTime	Time		This will store the time of the tour.

3.	userID	Varchar		
4.	PlaceID	Varchar		
5.	GuideID	Varchar		

6. FeedbackDetails

S.No.	Attribute	Data Type	Size	Description
1.	FeedbackNo.	Varchar	20	This is primary key and store unique number for feedback.
2.	FeedbackMessage	Varchar	MAX	This field store feedback messages from the users.
3.	FeedbackDate	Date		This store the date of the message.
4.	FeedbackTime	Time		This store the time of the message.
6.	userID	Varchar	20	This is foreign key.

7. QueryDetails

S.No.	Attribute	Data Type	Size	Description
1.	QueryNo.	varchar	20	This is primary key which stores unique number for queries.
2.	QueryDate	date		This stores date of the query.
3.	QueryTime	time		This stores time of the query.
4.	QueryMessage	varchar	MAX	This stores the query messages from the users.
6.	userID	varchar	20	

8. ComplainDetails

S.No.	Attribute	Data Type	Size	Description
1.	ComplainNo.	varchar	20	This is primary key which stores the unique number for complaints.
2.	ComplainDate	date		This stores date of the complaint.
3.	ComplainTime	time		This stores time of the complaint.
4.	ComplainMessage	varchar	MAX	This stores the complaint message from the users.
6.	userID	varchar	20	

9. tblLoginDetails

S.No.	Attribute	Data Type	Size	Description
1.	LoginID	varchar	20	This stores the Login ID of users and staff
2.	Password	varchar	50	This stores the password of users and staff.
3.	Role	int		This stores Role.

4.3.2 Database design

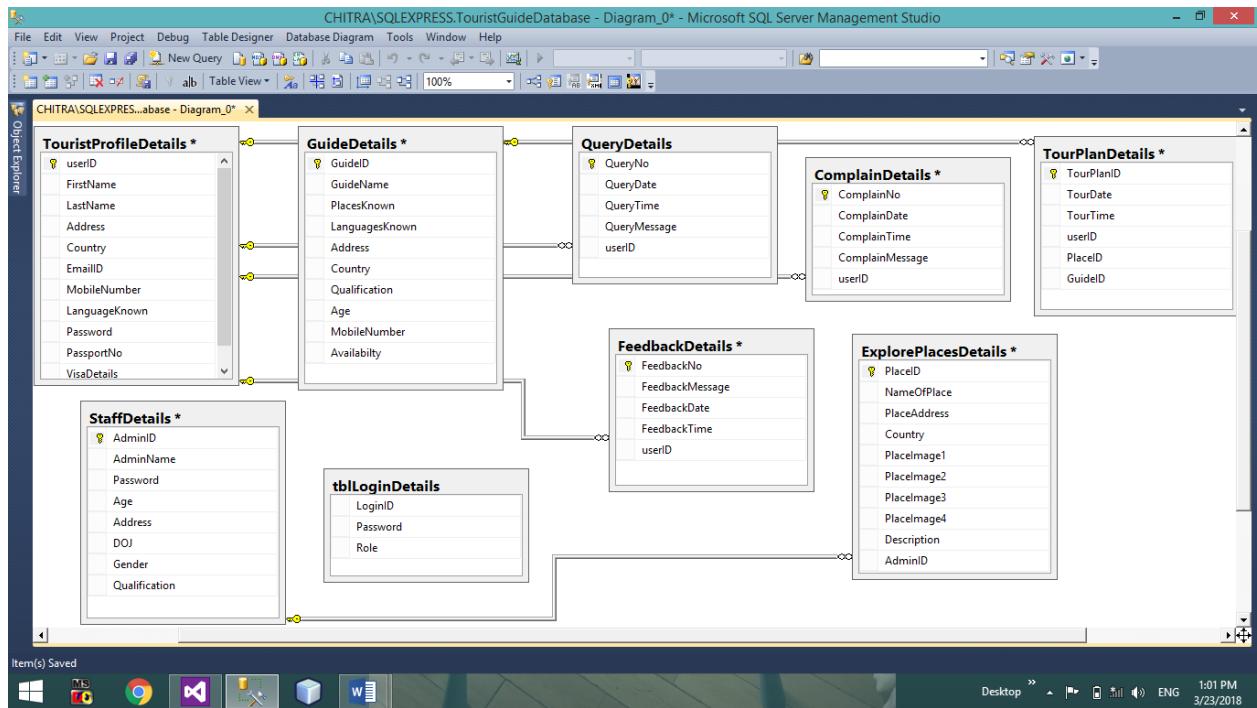


FIG 4.5

This figure shows database design i.e. table used and relationship between tables .

4.4 Class Diagram

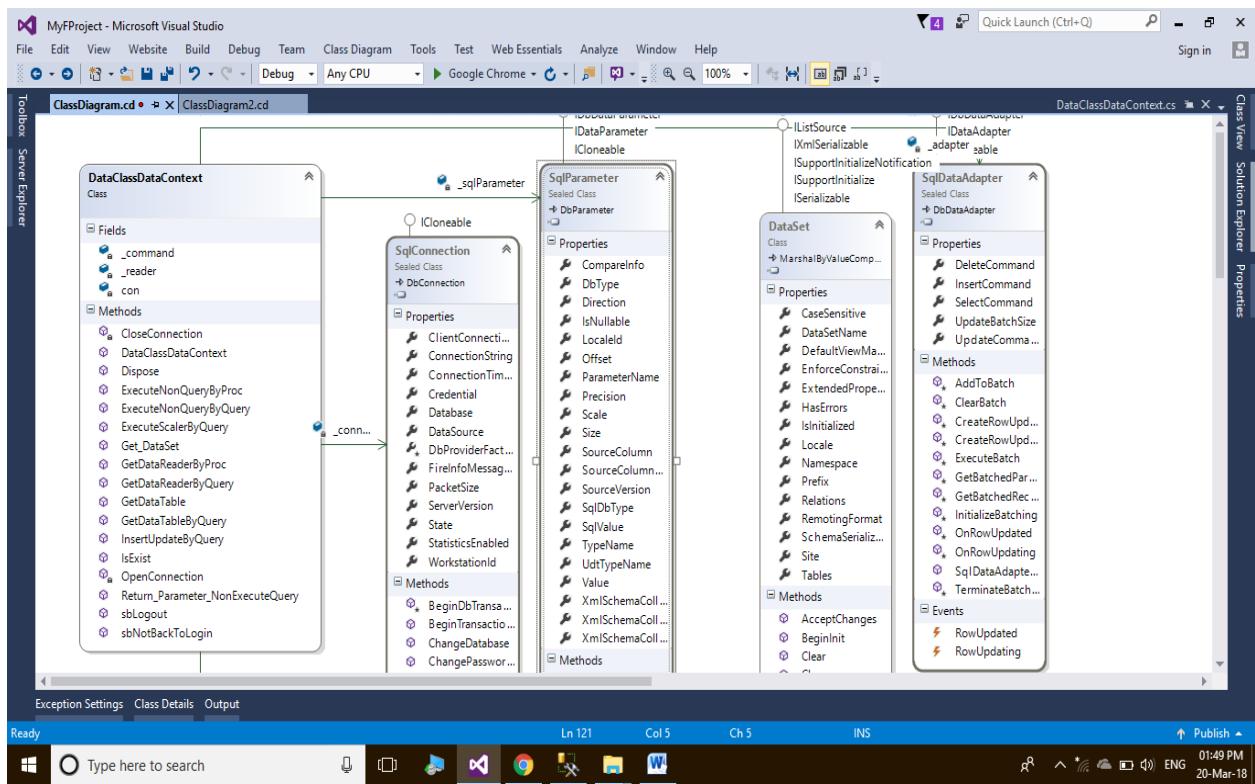


FIG 4.6

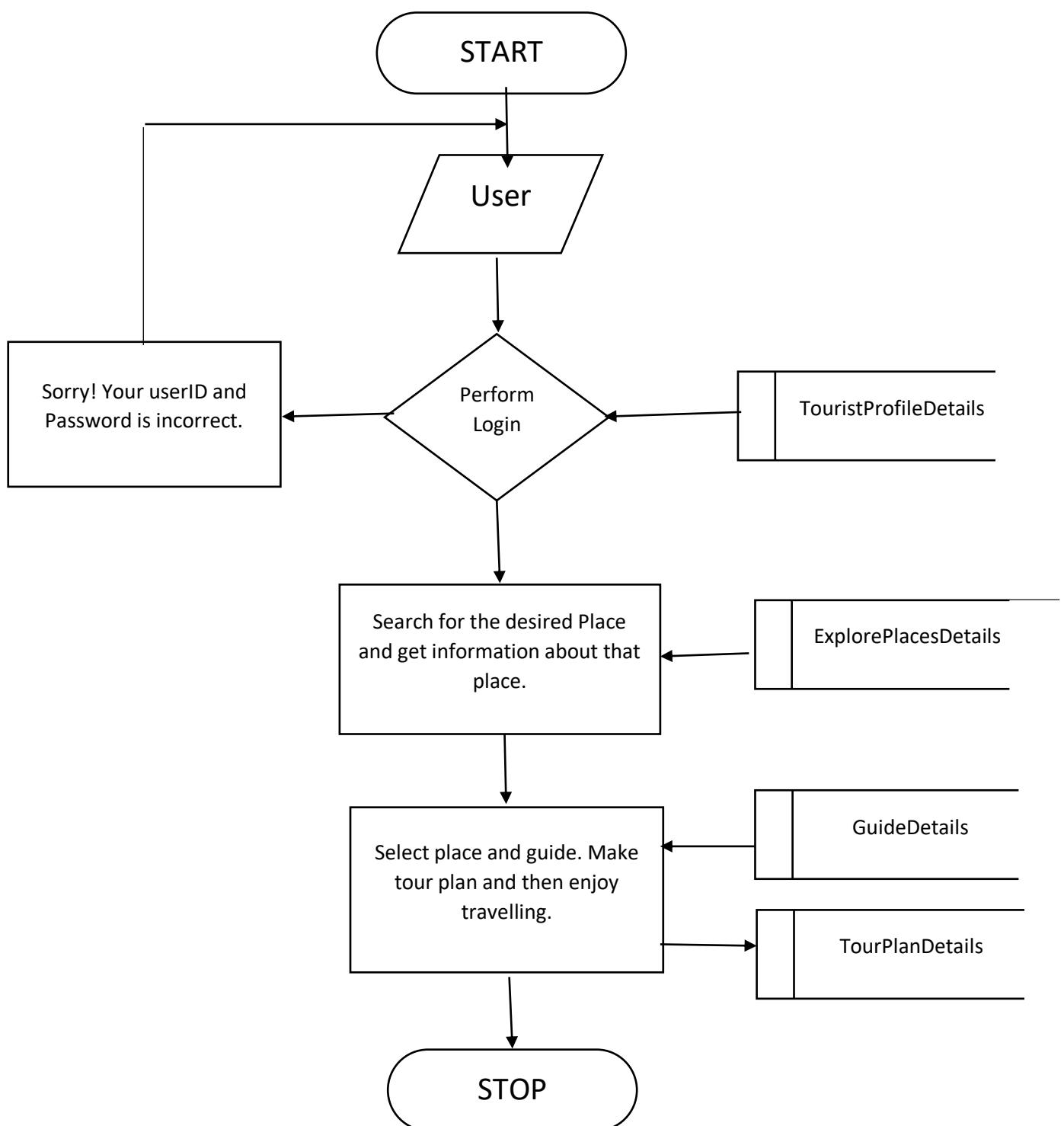
This figure shows class diagram of Online Tourist Guide .

4.5 PROCESS LOGIC

This page is designed for the purpose of describing the details of the process graphically.

Tourist_Profile

FIG 4.7



CHAPTER 5

USER INTERFACES

5.1 User Interfaces

➤ Home page

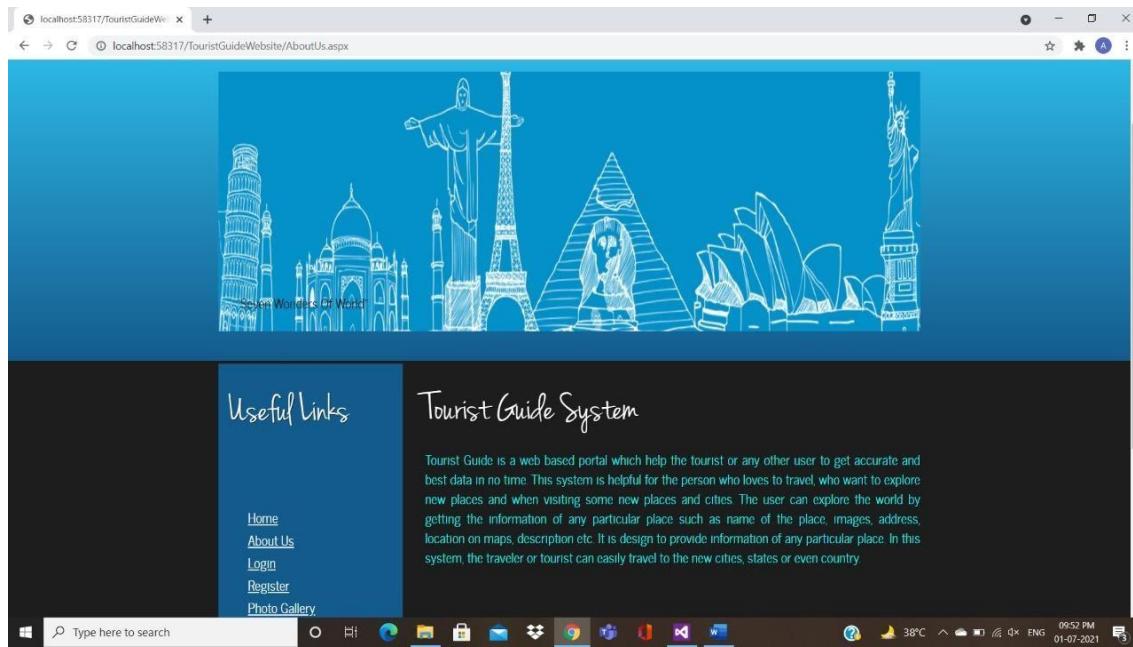


FIG 5.1

This is our Home page. User get the list of explore places here.

➤ Login page

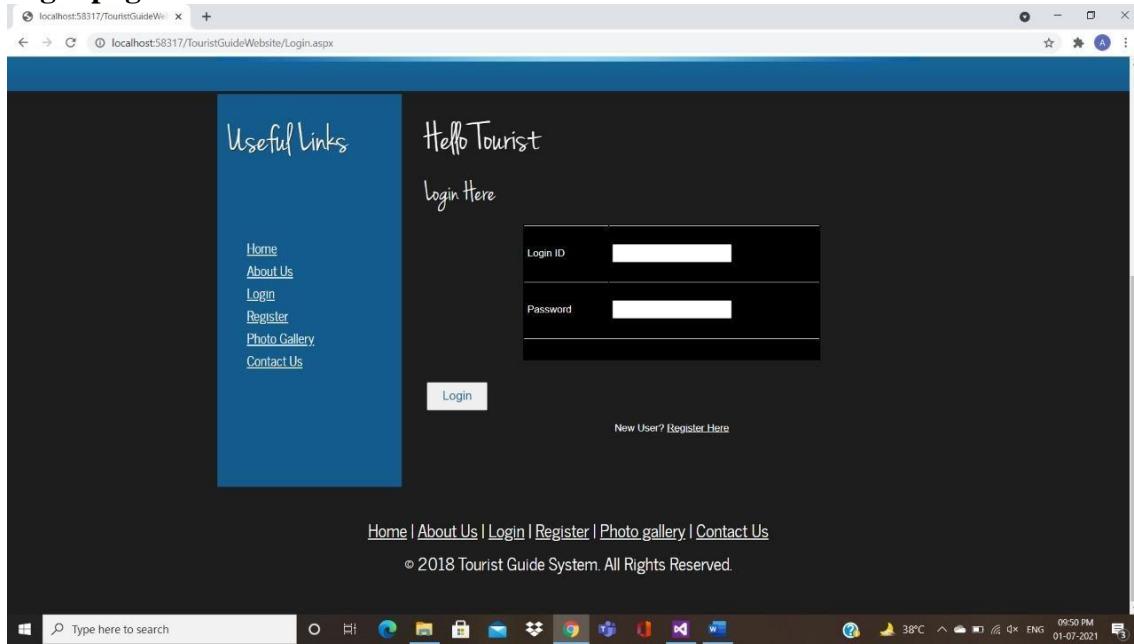


FIG 5.2

This is Login page. Users and Admin login into the website from here.

➤ **Registration page**

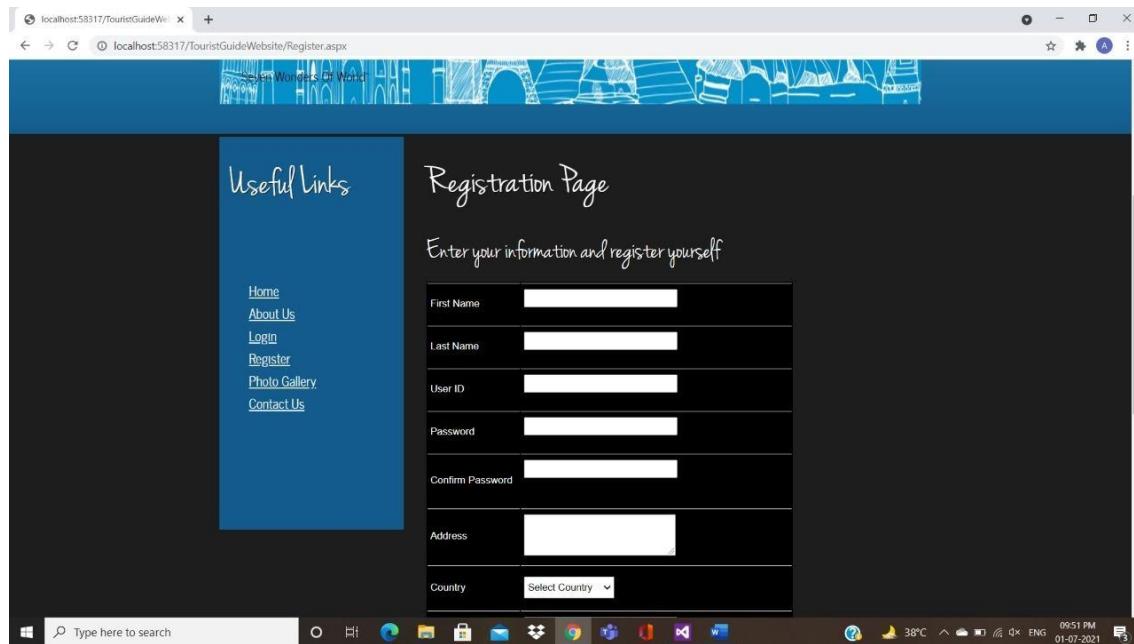
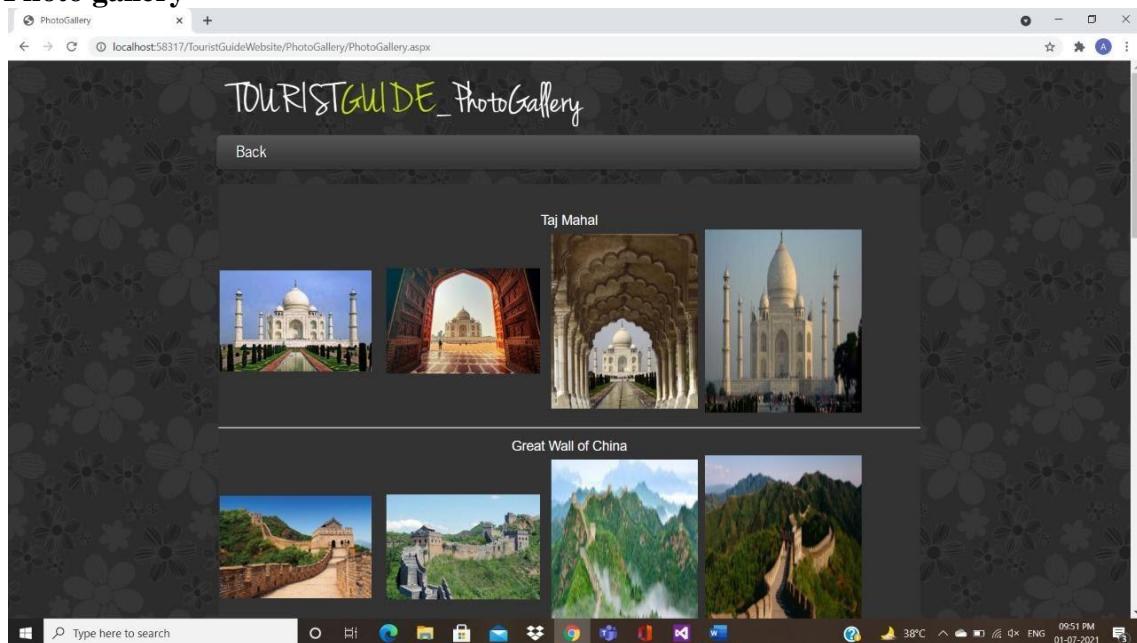


FIG 5.3

This is registration page. Tourist or user can register themselves by giving their details. They get their LoginID and password from here.

➤ **Photo gallery**



➤ **FIG 5.4**

This is photo gallery. Non registered user can see the photos of the places with their name from here.

➤ About us

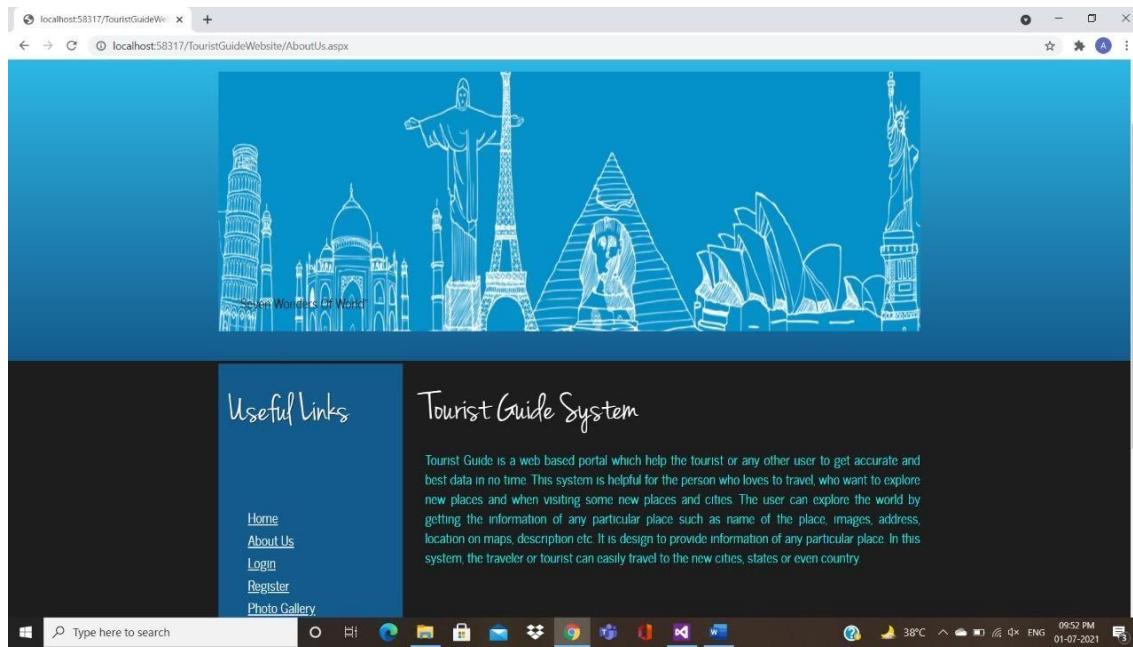


FIG 5.5

This is about us page. This page contain information about the working of system .

➤ Contact us

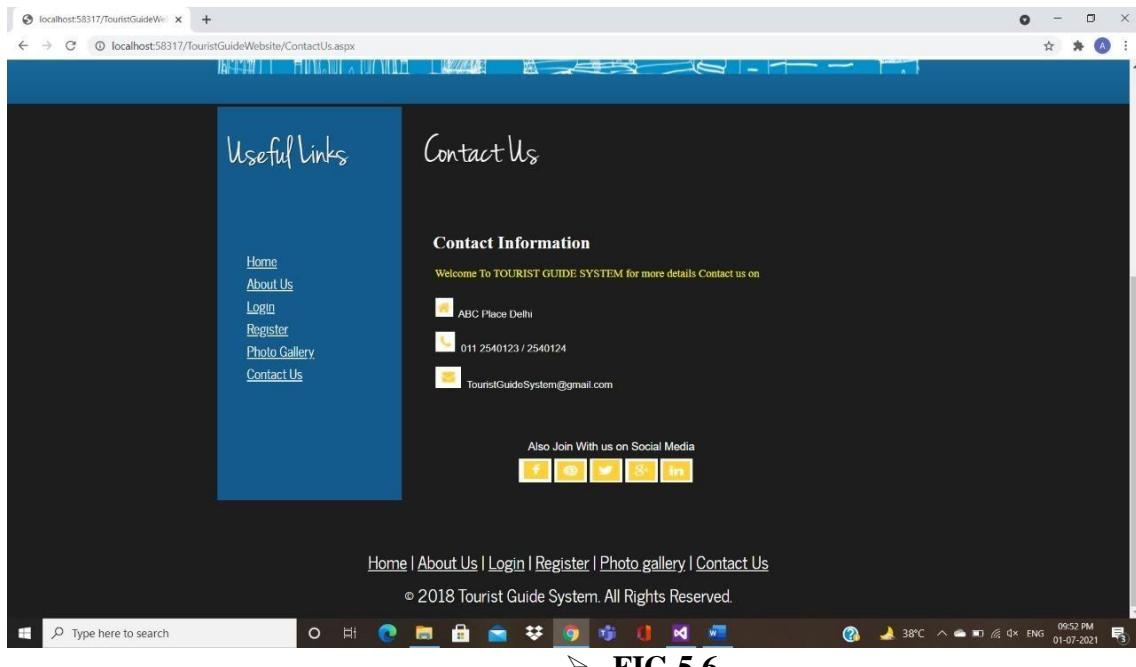


FIG 5.6

This is contact us page. Through this page user can contact us.

➤ Home page for registered users

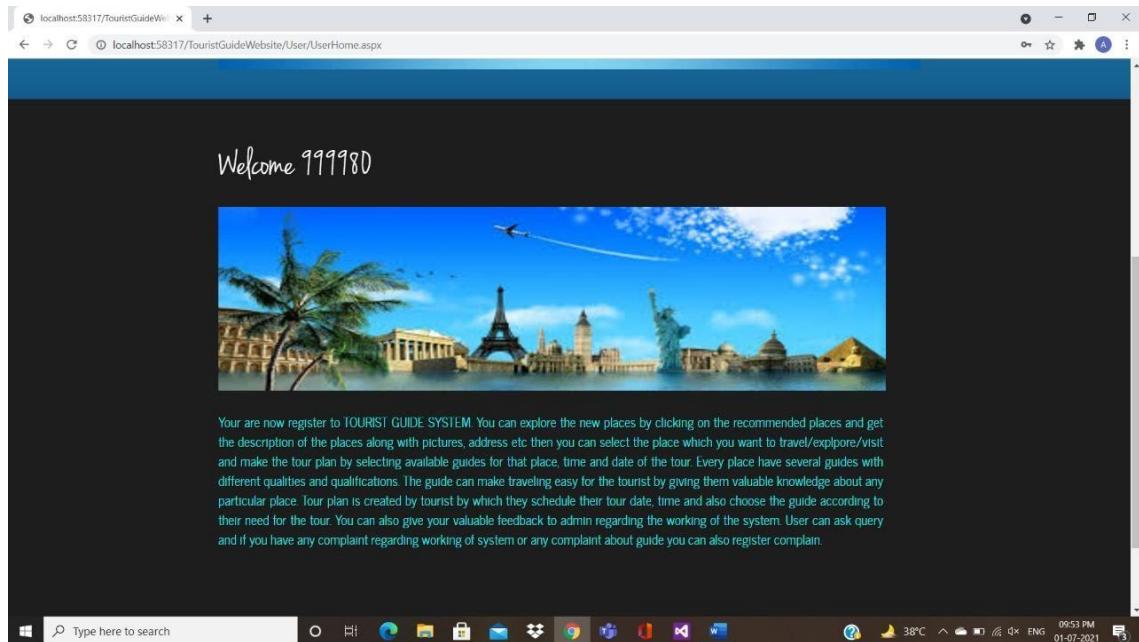


FIG 5.7

After successful login user get this page. This is the Home page for registered users.

➤ Explore places

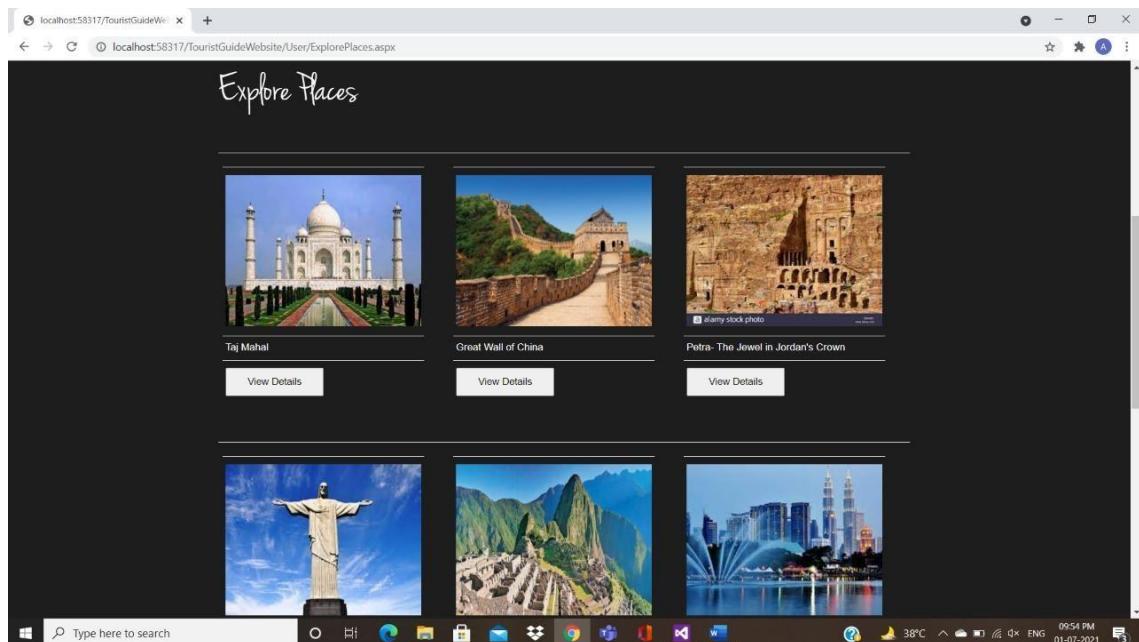


FIG 5.8

This is explore places page. User get the list of Explore Places from here. **Places details**

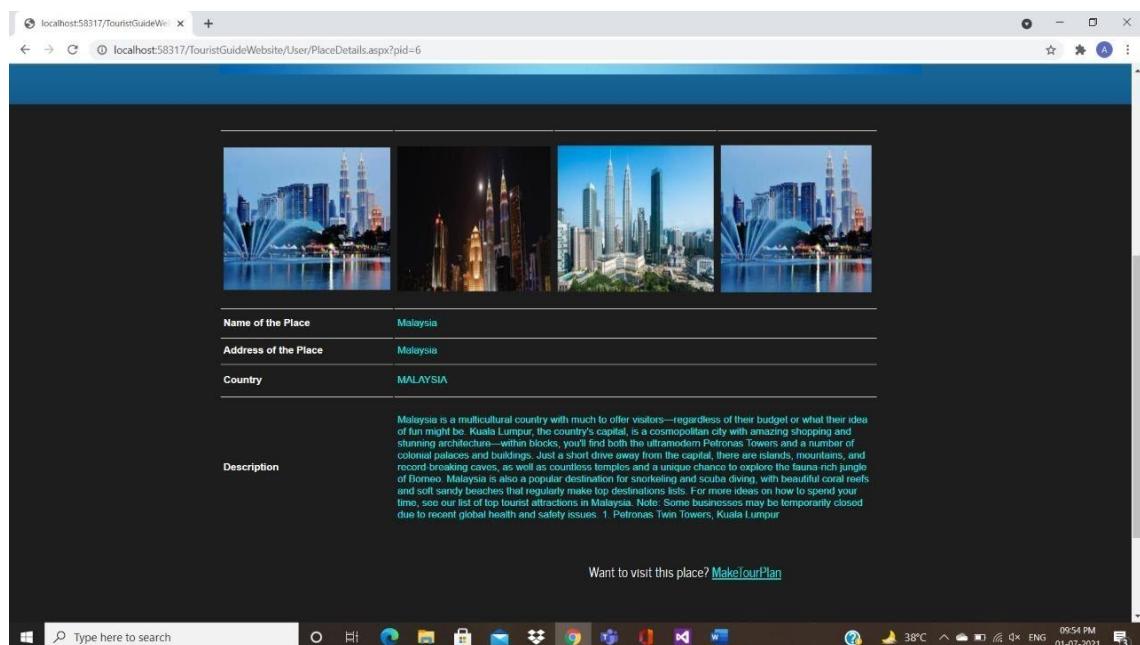


FIG 5.9

This is Place details page. User get the full description of the place from here.

➤ Tour plan

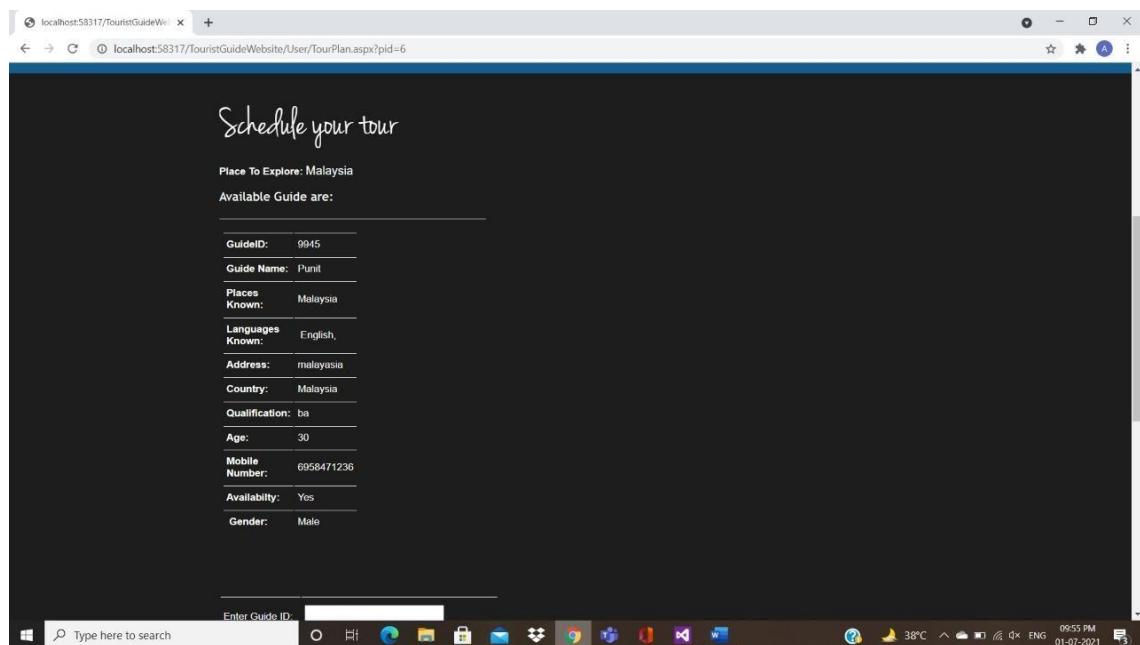


FIG 5.10

This is tour plan page. User make their tour plan from here.

➤ **ViewTourPlans**

The screenshot shows a web browser window with the URL <http://localhost:49564/User/ViewTourPlans.aspx>. The page has a decorative banner at the top featuring various world landmarks under the heading "Seven Wonders Of World". Below the banner, the text "Your Tour Plans are:" is displayed. A table lists nine tour plans:

TourPlanID	NameOfPlace	TourDate	TourTime	GuideName
2	Petra - The Jewel in Jordan's Crown	2/2/2018 12:00:00 AM	11:30:00	varun
3	Petra - The Jewel in Jordan's Crown	2/2/2018 12:00:00 AM	11:30:00	varun
4	Petra - The Jewel in Jordan's Crown	12/12/2012 12:00:00 AM	12:12:00	varun
5	Petra - The Jewel in Jordan's Crown	3/19/2018 12:00:00 AM	12:00:00	varun
8	Petra - The Jewel in Jordan's Crown	12/12/2018 12:00:00 AM	12:25:00	varun
9	Taj Mahal	3/19/2018 12:00:00 AM	12:12:00	dev Puri

[Edit Plan](#)

The browser's address bar shows "localhost" and the full URL. The taskbar at the bottom includes icons for File Explorer, Task View, File, Print, and Task Manager, along with system status indicators like battery level, signal strength, and date/time (12:27 AM, 3/21/2018).

FIG 5.11

This is view tour plans page. From this page user get the list of tour plans they made.

➤ **Edit Plans**

The screenshot shows a web browser window with the same URL as FIG 5.11. The banner at the top features various world landmarks and the slogan "Explore the world, you have never seen before!". Below the banner, the text "Edit your Tour Plans" is displayed. A table lists three tour plans:

	TourPlanID	TourDate	TourTime	userID	PlaceID	GuideID
Edit Delete	5	3/19/2018 12:00:00 AM	12:00:00	chitra.puri	9	varun123
Edit Delete	8	12/12/2018 12:00:00 AM	12:25:00	chitra.puri	9	varun123
Edit Delete	9	3/19/2018 12:00:00 AM	12:12:00	chitra.puri	15	guideDev

[Back](#)

The browser's address bar shows "localhost" and the full URL. The taskbar at the bottom includes icons for File Explorer, Task View, File, Print, and Task Manager, along with system status indicators like battery level, signal strength, and date/time (12:28 AM, 3/21/2018).

FIG 5.12

Through this page user can edit their tour plans.

➤ **Setting**

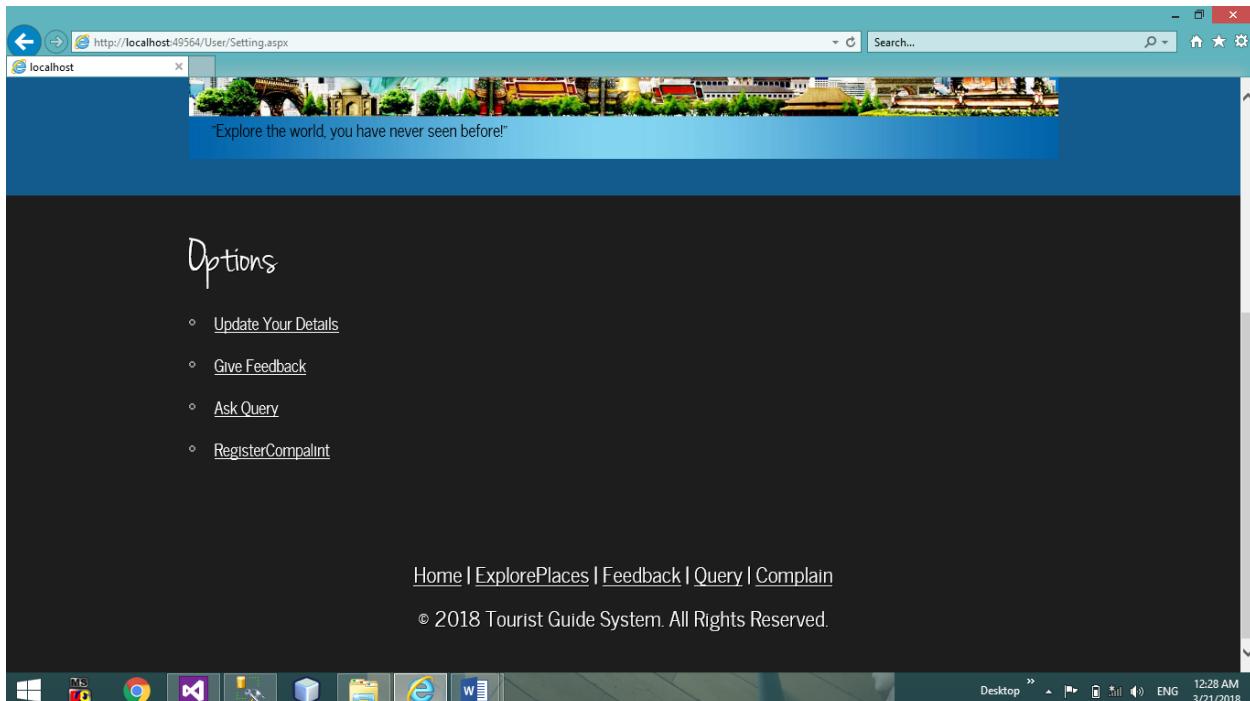


FIG 5.13

Setting page. User get options here.

➤ **Update details**

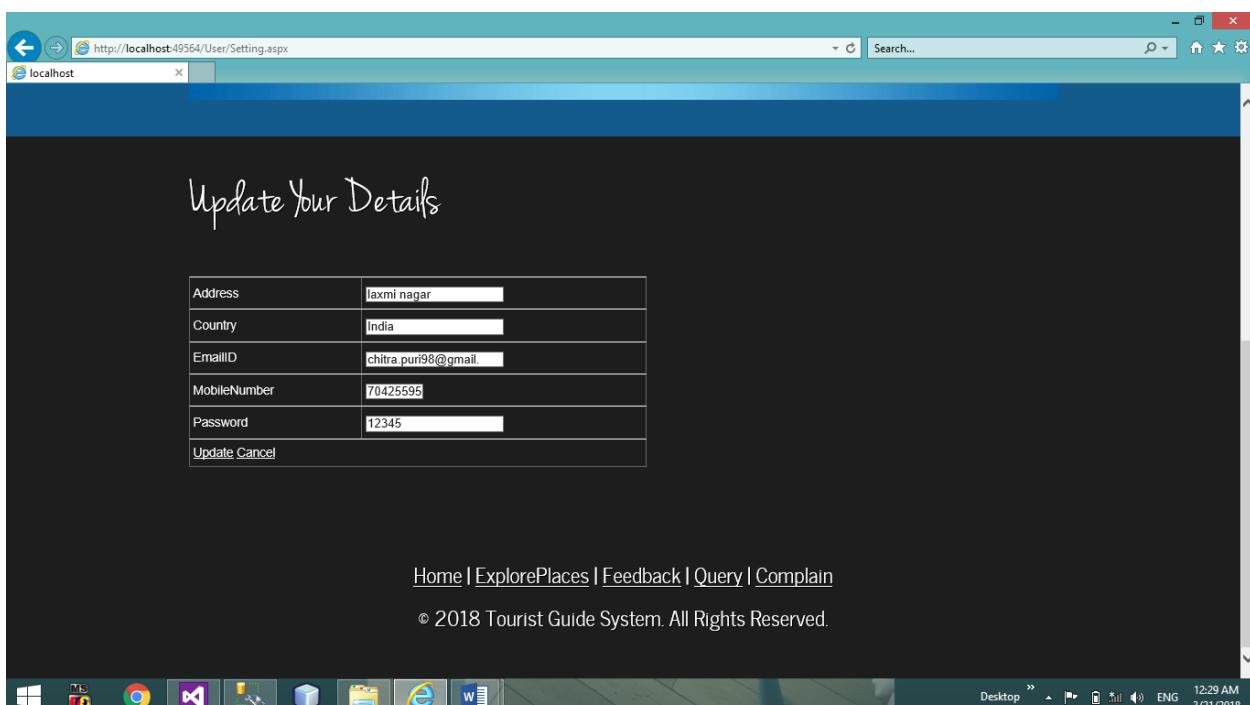


FIG 5.14

Update details page. User can update their details from here.

➤ **Feedback page**

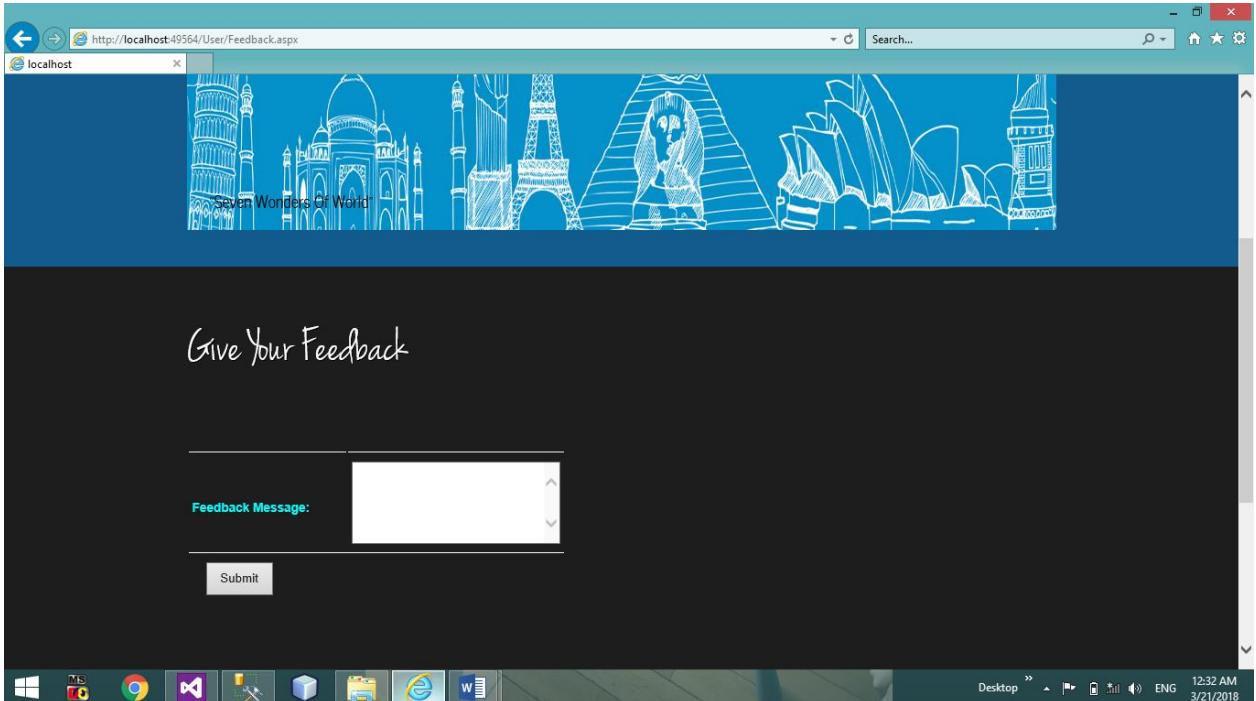


FIG 5.15

User can give their feedback from here.

➤ **Query page**

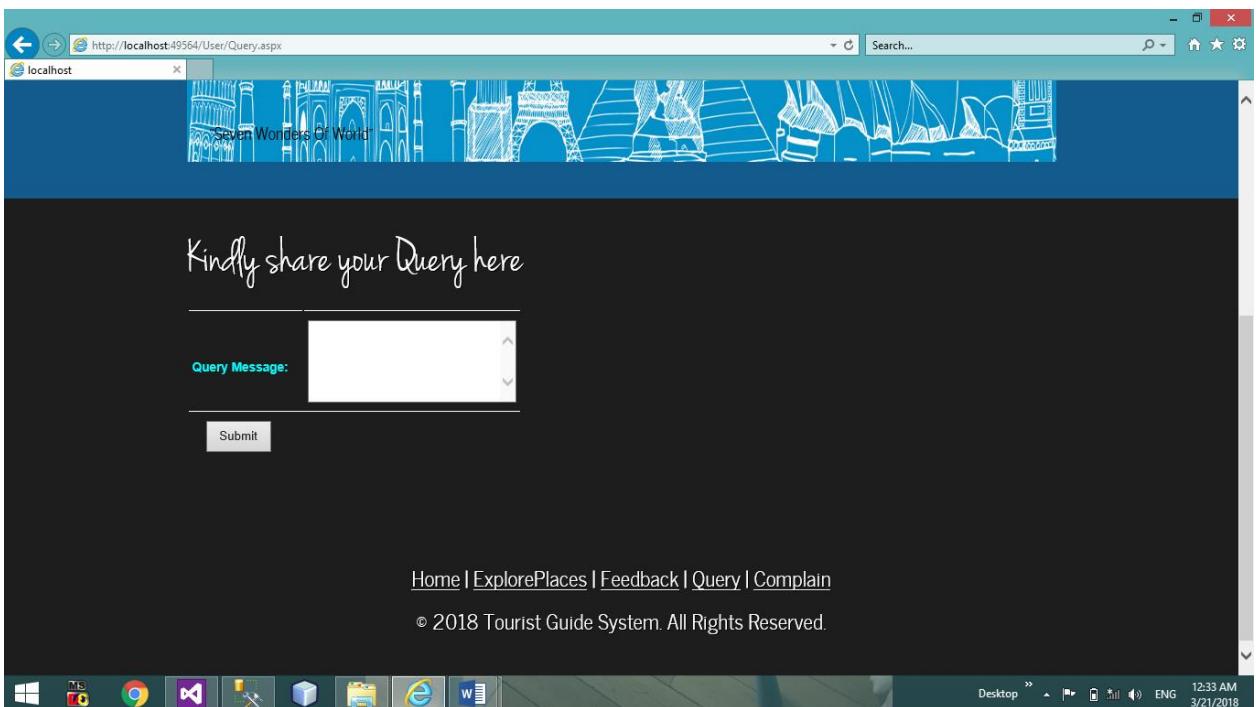


FIG 5.16

This is query page. User can ask for query from this page.

➤ **Complain page**

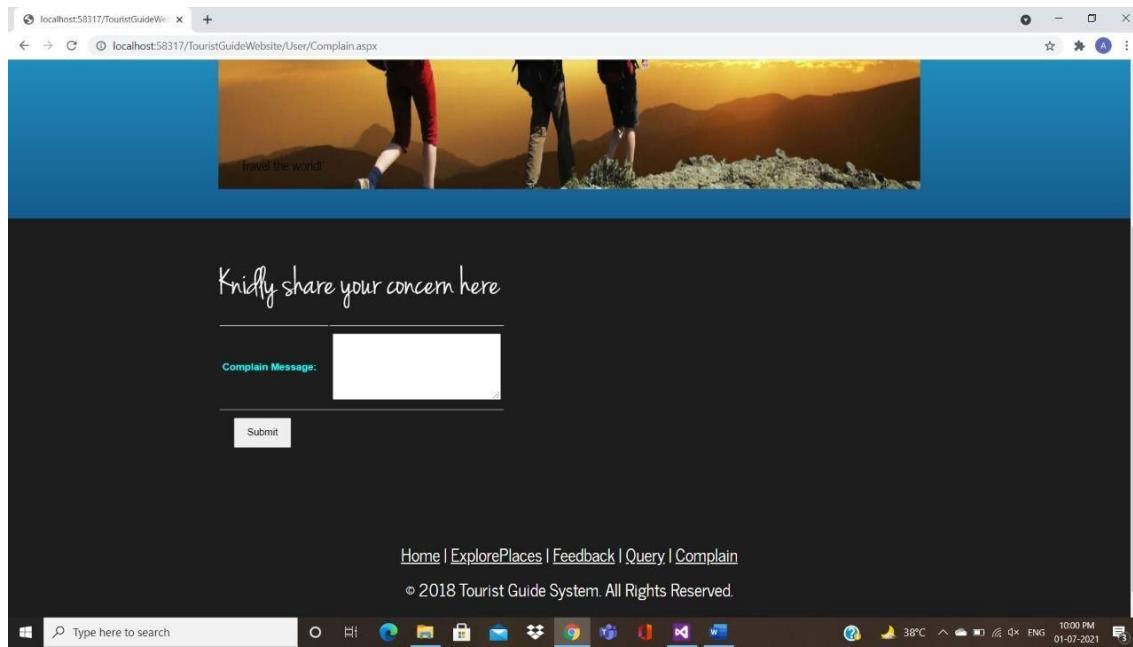


FIG 5.17

This is Complain page. User can register their complain from here.

➤ **Admin Home**

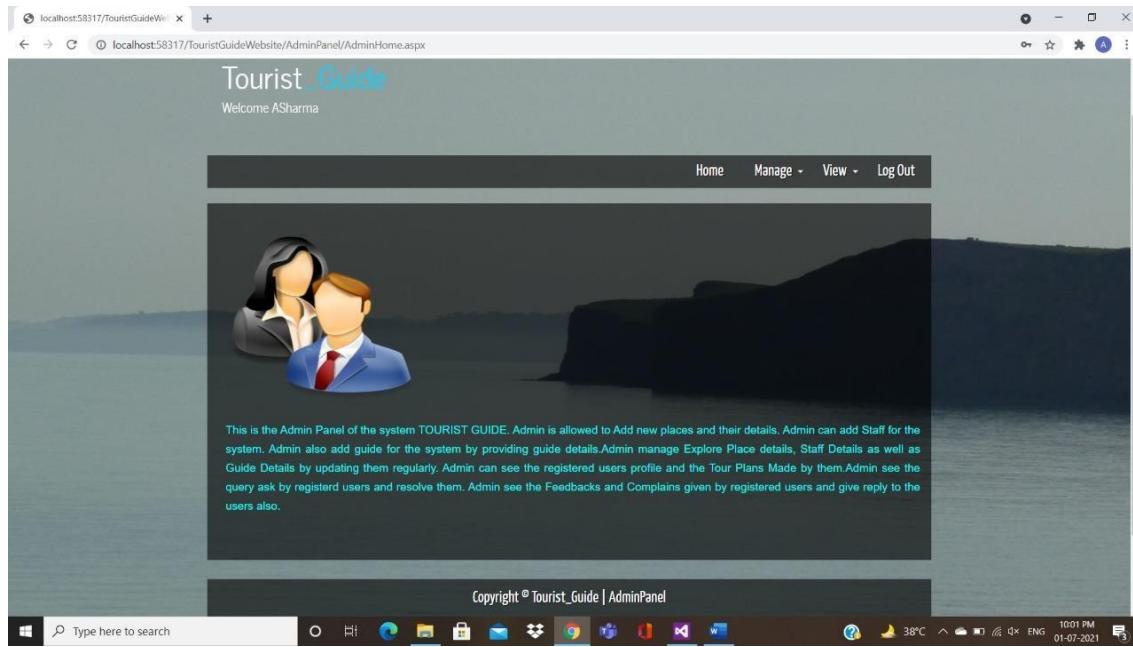


FIG 5.18

This is home page for admin.

➤ Manage Explore Places

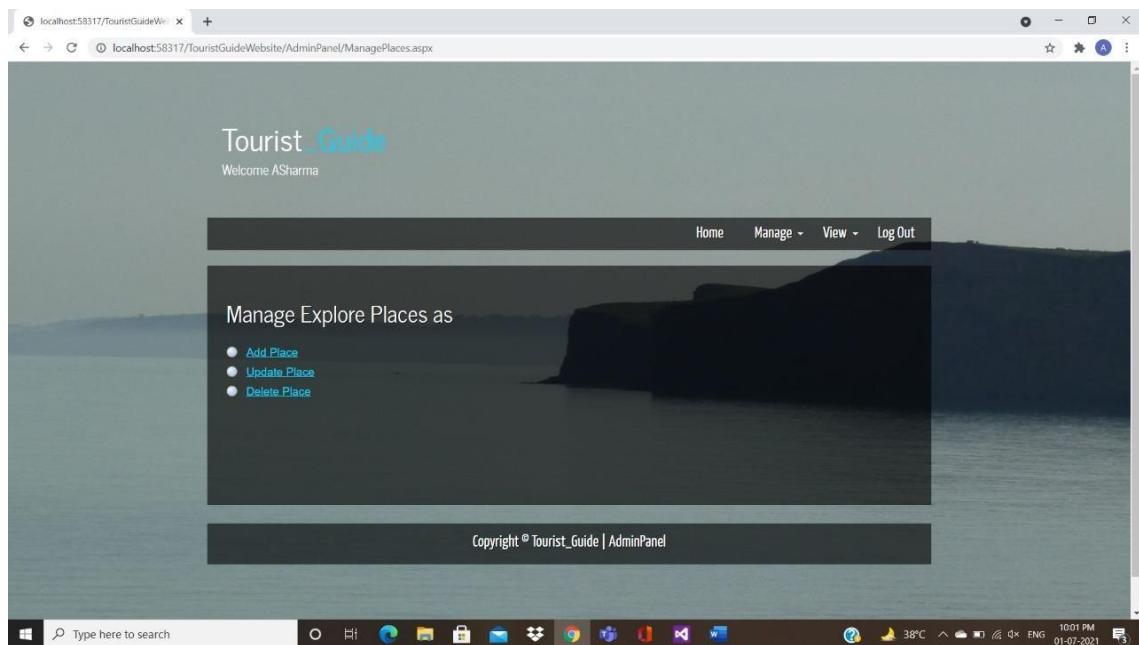


FIG 5.19

Manage explore places page. Admin manage exploreplaces from here.

➤ Add explore place

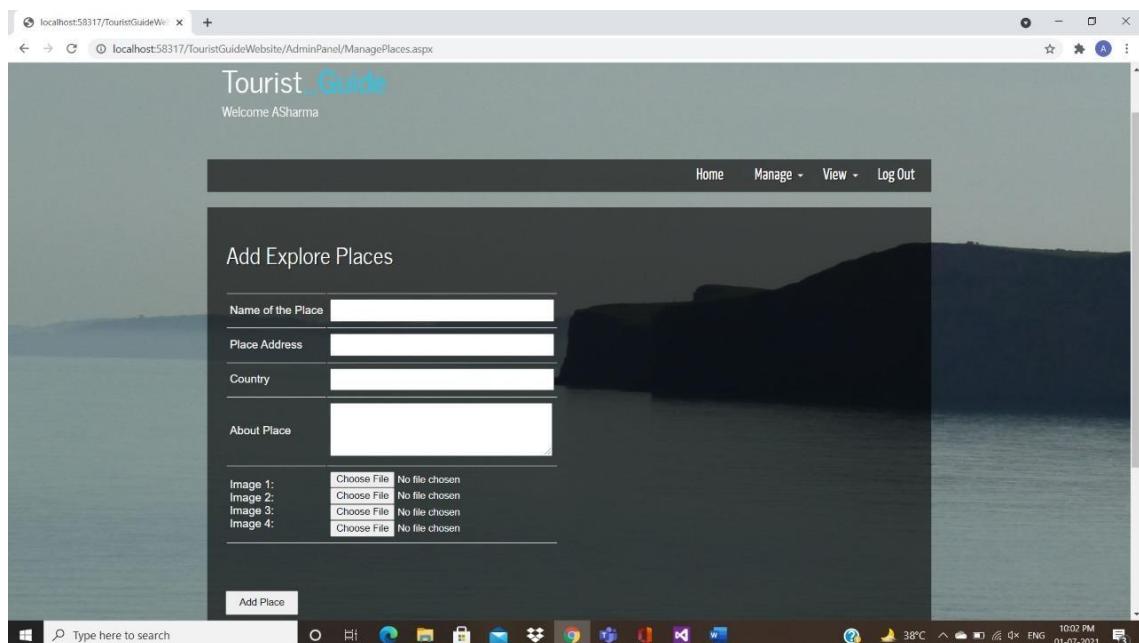


FIG 5.20

Admin add the explore places details through this page.

➤ **Update explore place**

The screenshot shows a Microsoft Edge browser window displaying the 'ManagePlaces.aspx' page of the 'Tourist Guide' website. The title bar reads 'localhost:58317/TouristGuideWebsite/AdminPanel/ManagePlaces.aspx'. The page header includes 'Tourist Guide' and 'Welcome ASharma'. A navigation menu at the top right offers 'Home', 'Manage', 'View', and 'Log Out'. The main content area is titled 'Update Explore Places Details' and contains a table with the following data:

PlaceID	NameOfPlace	PlaceAddress	Country
Edit 1	Taj Mahal	Agra, Uttar Pradesh	India
Edit 2	Great Wall of China	Huairou District	China
Edit 3	Petra- The Jewel in Jordan's Crown	Jordan	Jordan
Edit 4	Christ-The Redeemer	Parque Nacional da Tijuca - Alto da Boa Vista, Rio de Janeiro	Brazil
Edit 5	Machu Pichhu	Peru	Peru
Edit 6	Malaysia	Malaysia	MALAYSIA
Edit 7	Europe	europe	europe

A 'Back' link is located below the table. The system tray at the bottom shows the date and time as 01-07-2021 10:03 PM.

FIG 5.21

Admin update information of the places through this page.

➤ **Delete explore place**

The screenshot shows a Microsoft Edge browser window displaying the 'ManagePlaces.aspx' page of the 'Tourist Guide' website. The title bar reads 'localhost:58317/TouristGuideWebsite/AdminPanel/ManagePlaces.aspx'. The page header includes 'Tourist Guide' and 'Welcome ASharma'. A navigation menu at the top right offers 'Home', 'Manage', 'View', and 'Log Out'. The main content area is titled 'Delete Explore Places' and contains a table with the following data:

Delete	PlaceID	NameOfPlace	PlaceAddress
Delete 1	1	Taj Mahal	Agra, Uttar Pradesh
Delete 2	2	Great Wall of China	Huairou District
Delete 3	3	Petra- The Jewel in Jordan's Crown	Jordan
Delete 4	4	Christ-The Redeemer	Parque Nacional da Tijuca - Alto da Boa Vista, Rio de Janeiro
Delete 5	5	Machu Pichhu	Peru
Delete 6	6	Malaysia	Malaysia
Delete 7	7	Europe	europe

A 'Back' link is located below the table. The system tray at the bottom shows the date and time as 01-07-2021 10:03 PM.

FIG 5.22

Admin can delete the Explore Places through this page.

➤ Manage Tourist Guide

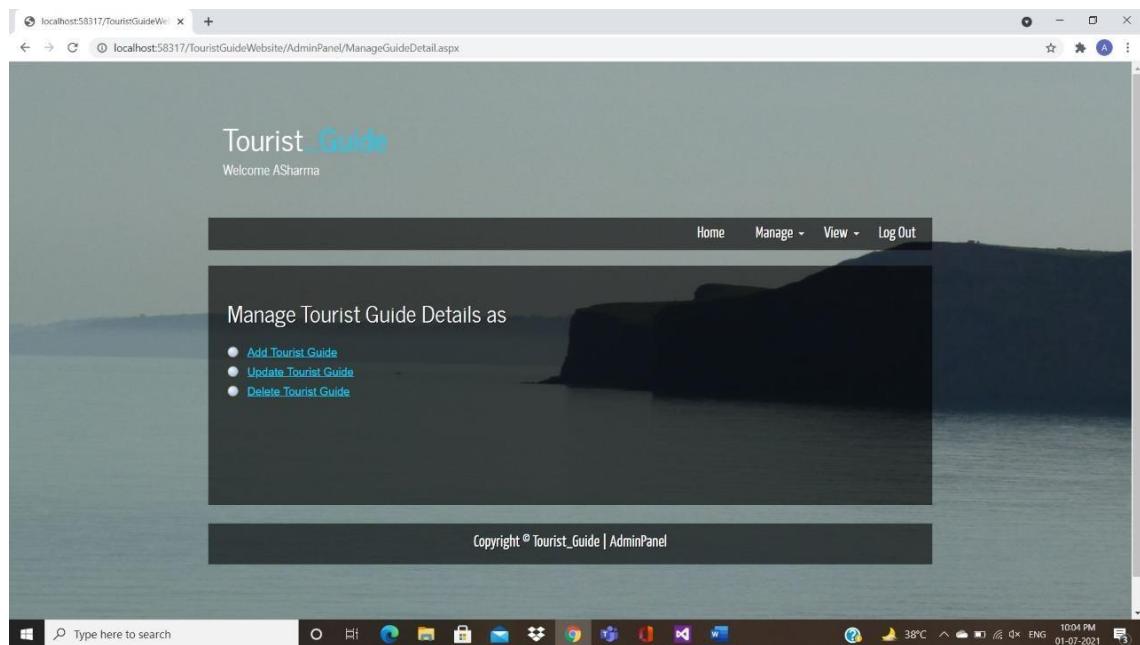


FIG 5.23

Admin manage Tourist guide details through this page.

➤ Add Tourist Guide

A screenshot of a web browser window titled "Tourist_Guide". The URL is "localhost:58317/TouristGuideWebsite/AdminPanel/ManageGuideDetail.aspx". The page has a header with "Tourist_Guide" and "Welcome ASharma". It features a navigation menu with "Home", "Manage", "View", and "Log Out". Below the menu, there's a section titled "Add Tourist Guide Details" with various input fields: "Guide Name" (text box), "Guide ID" (text box), "Age" (text box), "Gender" (radio buttons for Male and Female), "Address" (text box), "Country" (dropdown menu with "Select Country"), "Mobile Number" (text box), "Qualification" (text box), "Places Known" (dropdown menu with "Taj Mahal"), and "Languages Known" (dropdown menu with "Spanish", "English", "Italian", "German"). The background of the page is a scenic image of a body of water and hills.

FIG 5.24

Admin add tourist guide through this page.

➤ Update Tourist Guide

The screenshot shows a web browser window titled 'localhost:58317/TouristGuideWebsite/AdminPanel/ManageGuideDetail.aspx'. The title bar also displays 'Tourist Guide'. The main content area is titled 'Update Tourist Guide Details'. It features a table with columns: GuideName, Address, Country, Qualification, Age, MobileNumber, and GuideID. The table contains five rows of data. A 'Back' link is visible at the bottom left. The browser's address bar shows the full URL. The system tray at the bottom right indicates the date as 01-07-2021 and the time as 10:05 PM.

	GuideName	Address	Country	Qualification	Age	MobileNumber	GuideID
Edit	Punit	malaysia	Malaysia	ba	30	6958471236	9945
Edit	Adarsh	Agra, Uttar Pradesh	India	B.A History	45	6789654321	AD12
Edit	Kevin	China	India	mba	29	6789654321	GuideKevin
Edit	Rohit	xyz	India	BCA	39	6789654321	GuideRohit

FIG 5.25

Admin update information about the tourist guide through this page.

➤ Delete Tourist Guide

The screenshot shows a web browser window titled 'localhost:58317/TouristGuideWebsite/AdminPanel/ManageGuideDetail.aspx'. The title bar also displays 'Tourist Guide'. The main content area is titled 'Delete Tourist Guide'. It features a table with columns: GuideID, GuideName, Address, Country, Qualification, Age, MobileNumber, and Availability. The table contains four rows of data. A 'Back' link is visible at the bottom left. The browser's address bar shows the full URL. The system tray at the bottom right indicates the date as 01-07-2021 and the time as 10:05 PM.

	GuideID	GuideName	Address	Country	Qualification	Age	MobileNumber	Availability
Delete	9945	Punit	malaysia	Malaysia	ba	30	6958471236	Yes
Delete	AD12	Adarsh	Agra, Uttar Pradesh	India	B.A History	45	6789654321	Yes
Delete	GuideKevin	Kevin	China	India	mba	29	6789654321	Yes
Delete	GuideRohit	Rohit	xyz	India	BCA	39	6789654321	Yes

FIG 5.26

Admin delete tourist guide through this page.

➤ Manage Staff Details

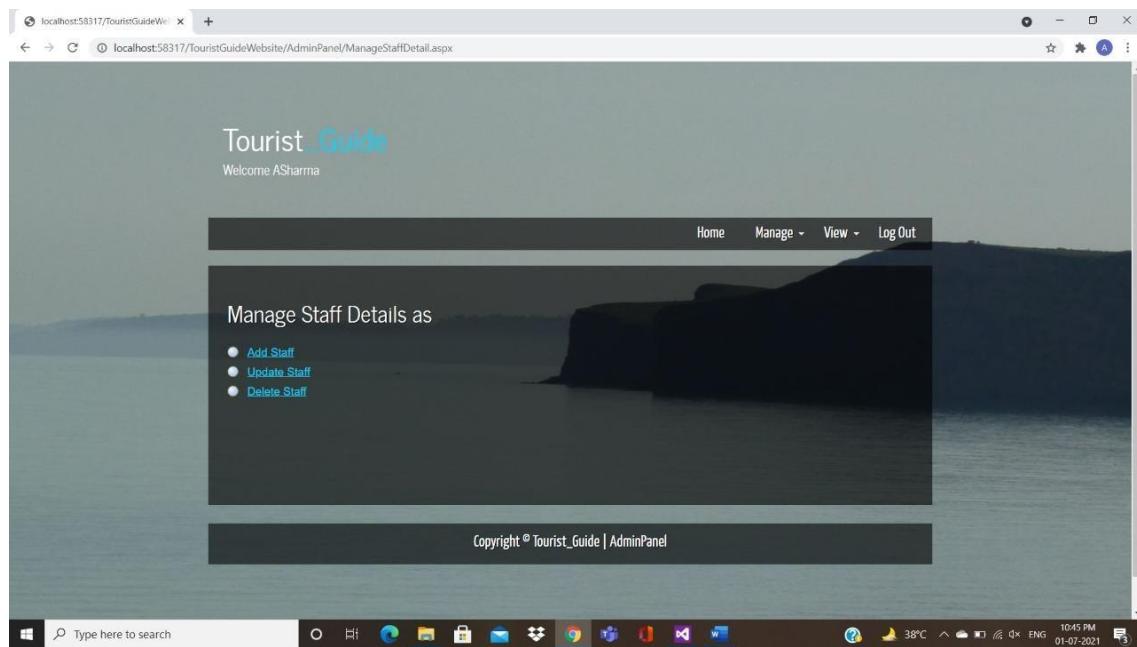


FIG 5.27

Admin manage staff through this page.

➤ Add Staff

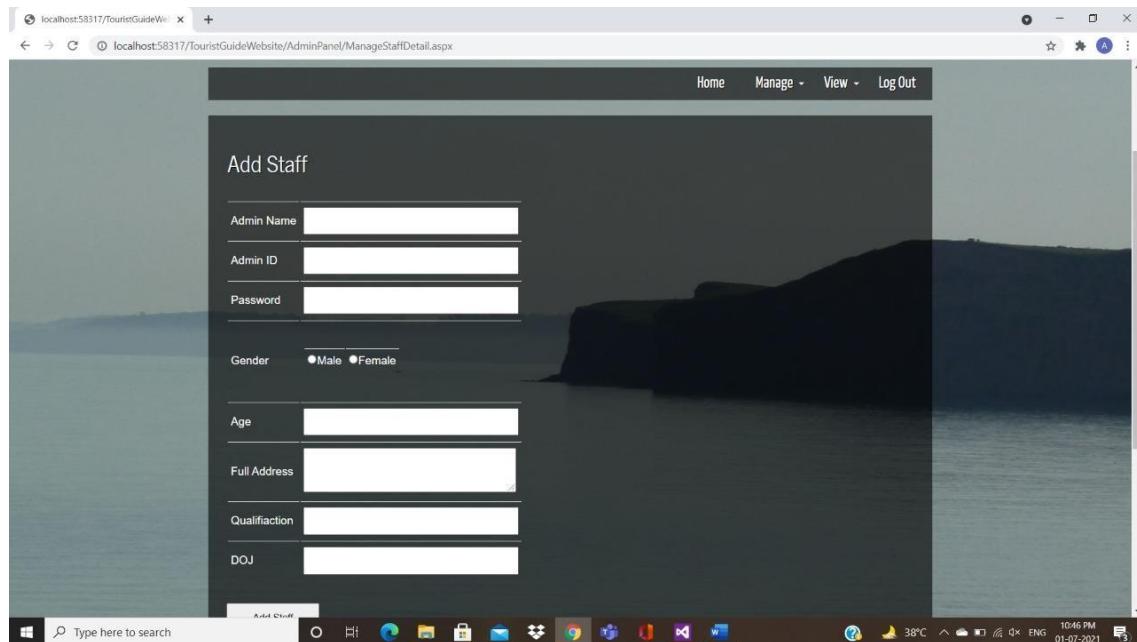


FIG 5.28

Admin add staff details through this page.

➤ Update Staff

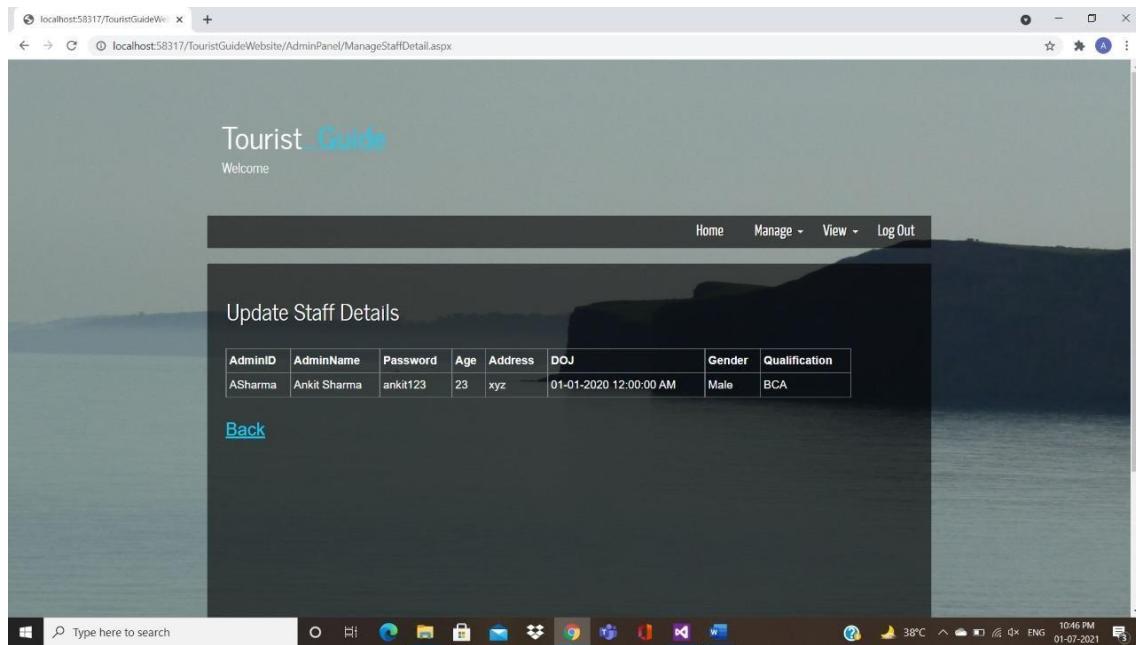


FIG 5.29

Admin update staff information through this page.

➤ Delete Staff

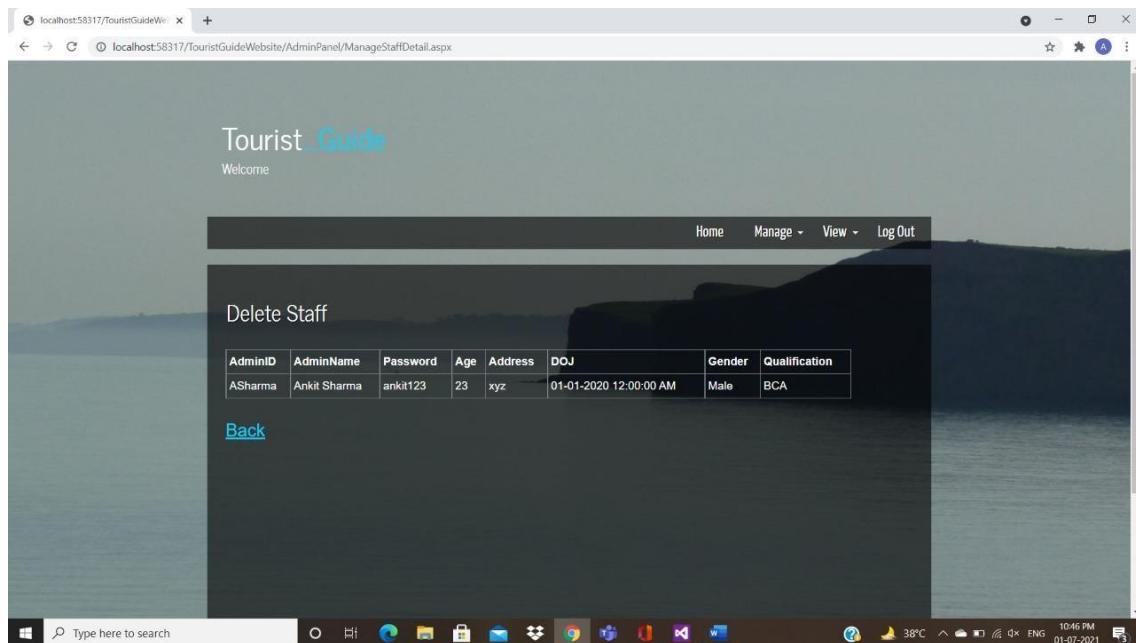


FIG 5.30

Admin Delete Staff from here.

➤ View Tourist Profiles

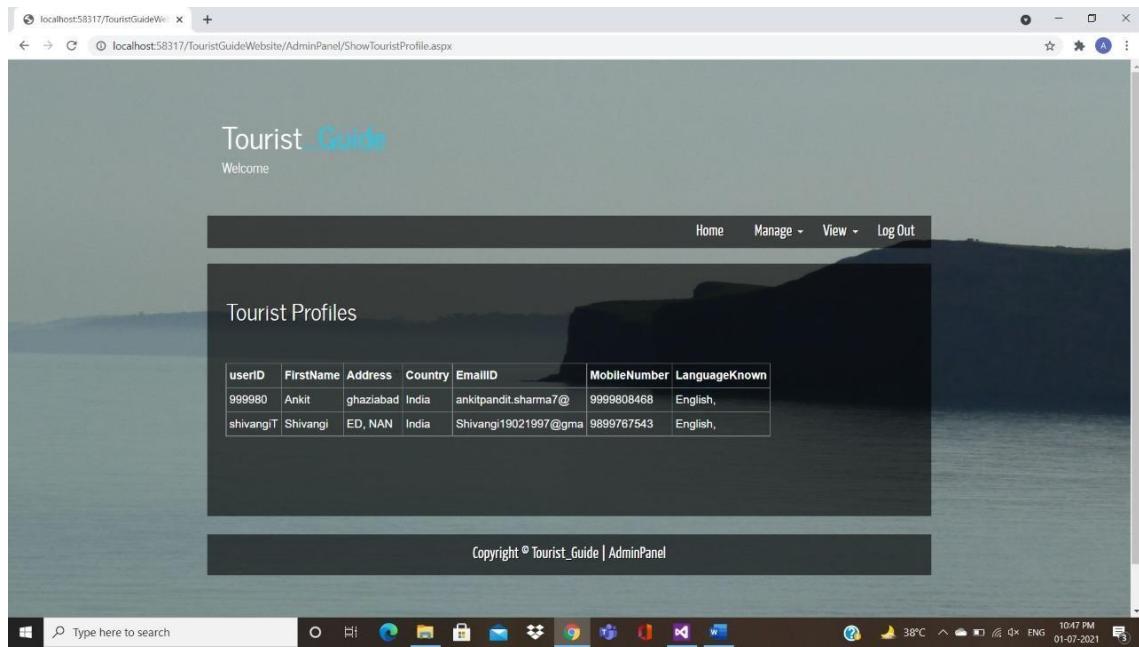


FIG 5.31

Admin view the list of tourist and their profile from here.

➤ View Tour Plans

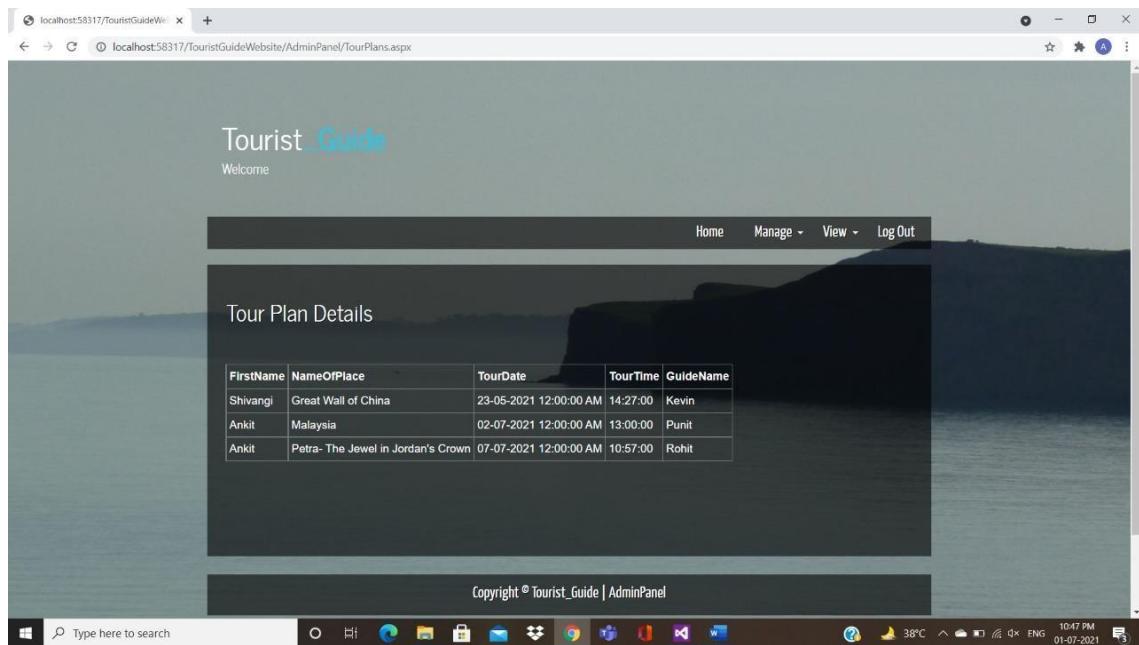


FIG 5.32

Admin view the list of tour plans made by users.

➤ View Feedbacks

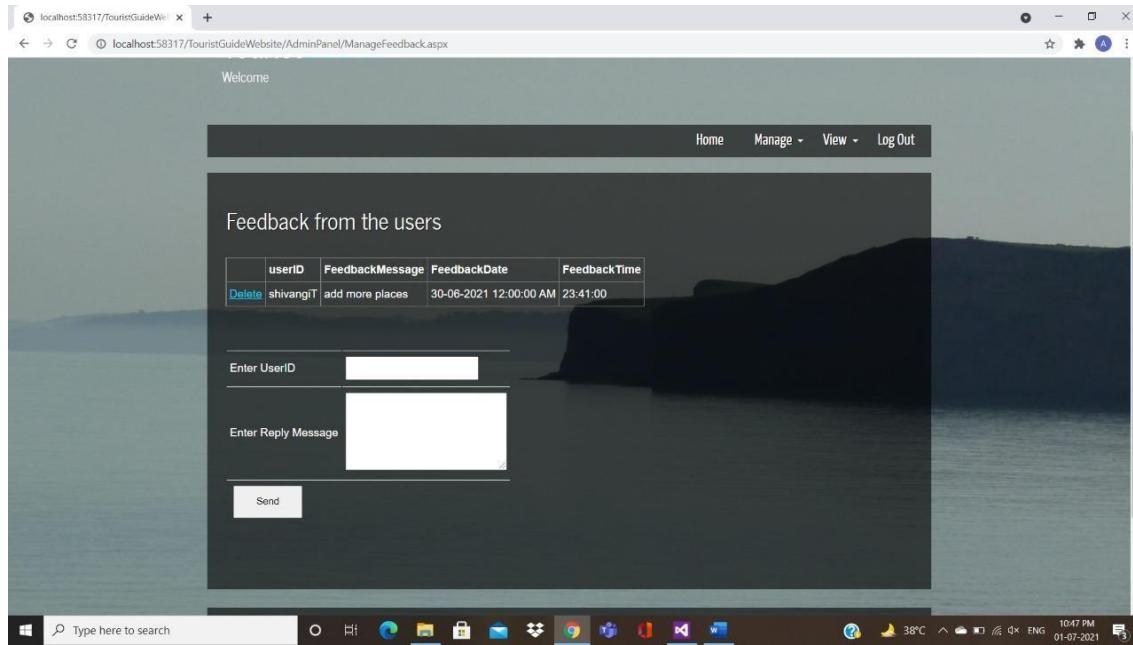


FIG 5.33

Admin see the list of feedbacks given by users from here and also reply back to it.

➤ View Queries

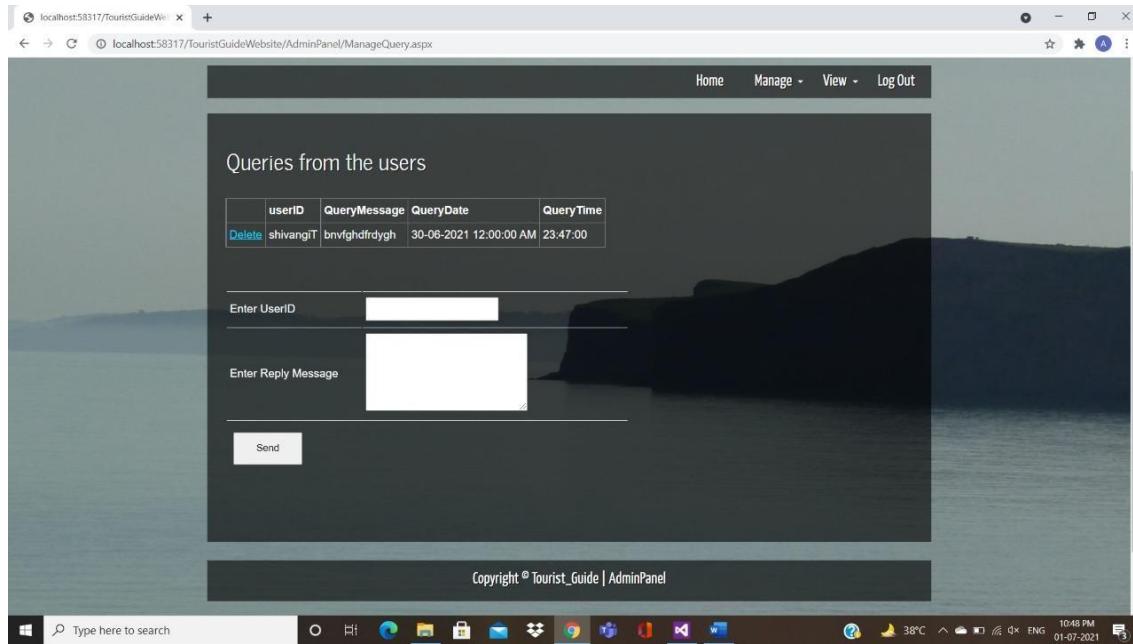


FIG 5.34

Admin see the list of Queries ask by users from here and also reply back to it.

➤ View Complaints

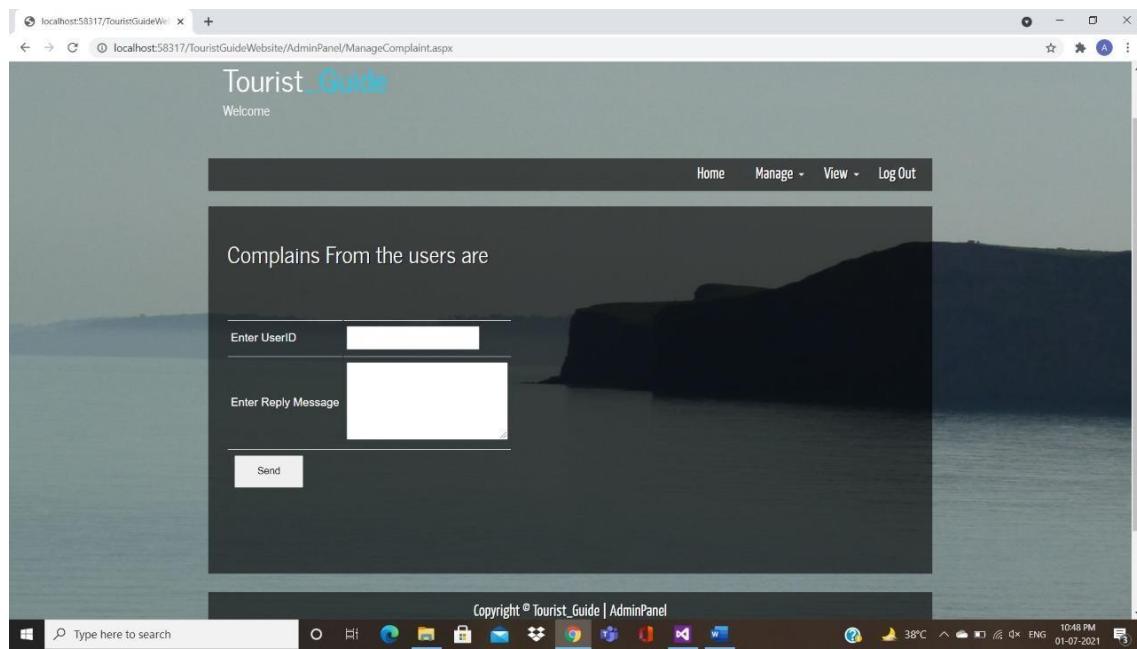


FIG 5.35

Admin see the list of Complaints given by users from here and also reply back to it.

CHAPTER 6

TEST AND VALIDATION CRITERIA

6.1 ERROR HANDLING

An Exception occurs when a program encounter any unexpected problems. Such as running out of memory or attempting to read from a file that no longer exists. These problems are not necessarily caused by a programming error but they mainly occur because of violation of assumption that you might have made about the execution environment. When a program encounters an exception the default behavior is to throw the exception which generally translates to abruptly, terminating the program after displaying an error message. But this is not a characteristic of a robust application.

But the best way is to bind the exception situations if possible, gracefully recover from them. This is called “exception handling”.

I used try, catch, finally and throw in my project to handle the exception.

The Try Block:

Place the code that might cause exception in a try block. A typical try block looks like this

Try

{

//Code that may cause exception

}

A try block can have another try block inside when an exception occurs at any point rather than executing any further lines of code, the CLR (Common Language Runtime)

Secures for the nearest try block that enclosure this code. This code. The control is then passed to a matching catch block if any and then to the kindly block associated with this try block.

Catch Block:

There can be no of catch blocks immediately following a try block. Each catch block handles an exception of a particular type. When an exception occurs in a statement placed inside the try block the CLR looks for a mainly block that is capable of handling the type of exception.

Throw block:

A throw statement explicitly generates an exception in code. You can throw when a particular path in code results in an anomalous situation.

Finally Block:

The finally block contains the code that always executes whenever or not any exception occurs.

6.2 PARAMETER PASSING

Passing parameters from one page to another is a very common task in Web development. There are still many situations in which you need to pass data from one Web page to another. One of the simplest and most efficient ways of passing parameters among pages is to use the query string. Unfortunately, packing data into the query string via string manipulations can quickly lead to cumbersome and often difficult to maintain code, especially as the parameter list grows. To overcome this problem, I've used Session in my project. Session has no. of advantages over the

Query String some of them are described below

- Query String is client side. But Session is server side.
- The information or data stored in Query String is visible to everyone. But in Session it is hidden and can't be viewed easily.
- Query String can store only a piece of information but in Session we can store the more and more data. The Query String speed never falls as the load increase because it stores a piece of information. But on the other hand Session increase congestion as the loads increase.

- **6.3 Validation Checks**

(1) Date Validation: The validation on date data type has been specified to be of the format DD/MM/YY. Any other format is unacceptable.

(2) Time validation: The validation on time data type has been specified to be of the format hours-minutes-seconds. Any other format is unacceptable.

(3) Number field validation: The field specified with number as then their data-type will not accept character.

(4) User Authentication: When a Customer/user logs on to the system to access data from tables and database, the Id & password needs to be checked.

(5) Password change Validation: Only authorized users are allowed to change the password and the process requires asking the old password before changing it to the new one.

TESTING

Test Case Execution

The workflow diagram below depicts the high level steps necessary to follow in order to set up and execute test based on the Test Case Template.

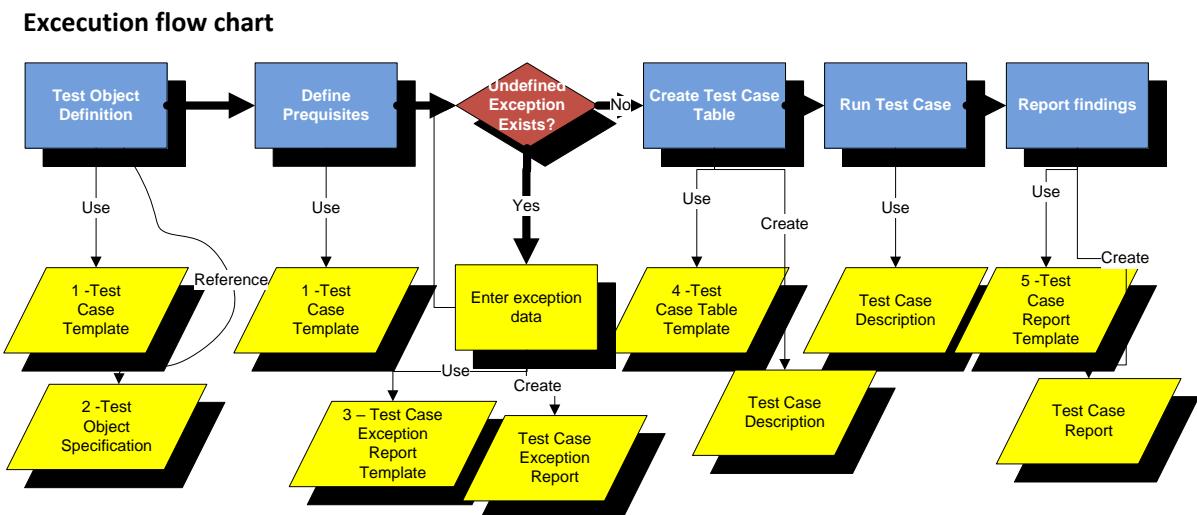


FIG 6.1

Legend

1 - *BII WG4 Test Case Template.doc*. The **Test Case template** used to define and set up the **Test Case Description**.

2 – The **test object specification** provides a reference to the object subject to test or if required, enter a copy of the object description excerpted from the object description for the test object. When referenced, the reference should include at least :

Testing is the process to uncover the errors.

Objectives of Testing: - There are following objectives:

- I. Testing is the process of executing the program to find error.
- II. A group test has a high probability of finding the errors.
- III. A successful test uncovers the all errors that have not been found.

Testing Principle: - There are following objectives:

- I. The test should be according to the customer's requirement.
- II. There should be a planning for testing before it starts.
- III. Pareto principle implies that 80 percent of all errors uncover during testing will likely be traceable to 20 percent of all program components.
- IV. Testing should begin 'in the small' and progress toward testing 'in the large'.

There are two types of testing: -

1. Black Box Testing
2. White Box Testing

Black Box Testing: - It is also called behavioral testing. The program is directly run by the computer to find the errors.

Objective of the Black Box Testing

- I. Incorrect or missing function.
- II. Interface error.
- III. Errors in data structures on database access.
- IV. Performance error.
- V. Initialization and termination error.

White Box Testing: - It is also called glass box testing. It traces all the paths of a program manually to find the errors.

Advantage of White Box Testing

- I. It guarantees that all independent paths have been checked at least once.
- II. Checks all logical decisions for true and false.
- III. Executes all loops at their boundary values.
- IV. Checks internal data structures.

Reasons for White Box Testing

- I. It can find logical errors, which cannot be found by ‘black box’.
- II. We often believe that a logical path is not likely to be executed when, in fact, it may be executed on a regular basis.
- III. Typographical errors are random. The block box testing can find out typing error but typing error but typing error are in the program.

Unit Testing

It is a technique of testing individual module at a time. The important control paths are tested to find the errors within the boundary of the module.

The interface is tested to check that input and output the module are correct. The data structure is tested to check that the data flow from input to output is correct. Boundary conditions are tested to check that the module works correct at boundary. The independent paths are tested to check that each part is executed at least once then all error paths are checked.

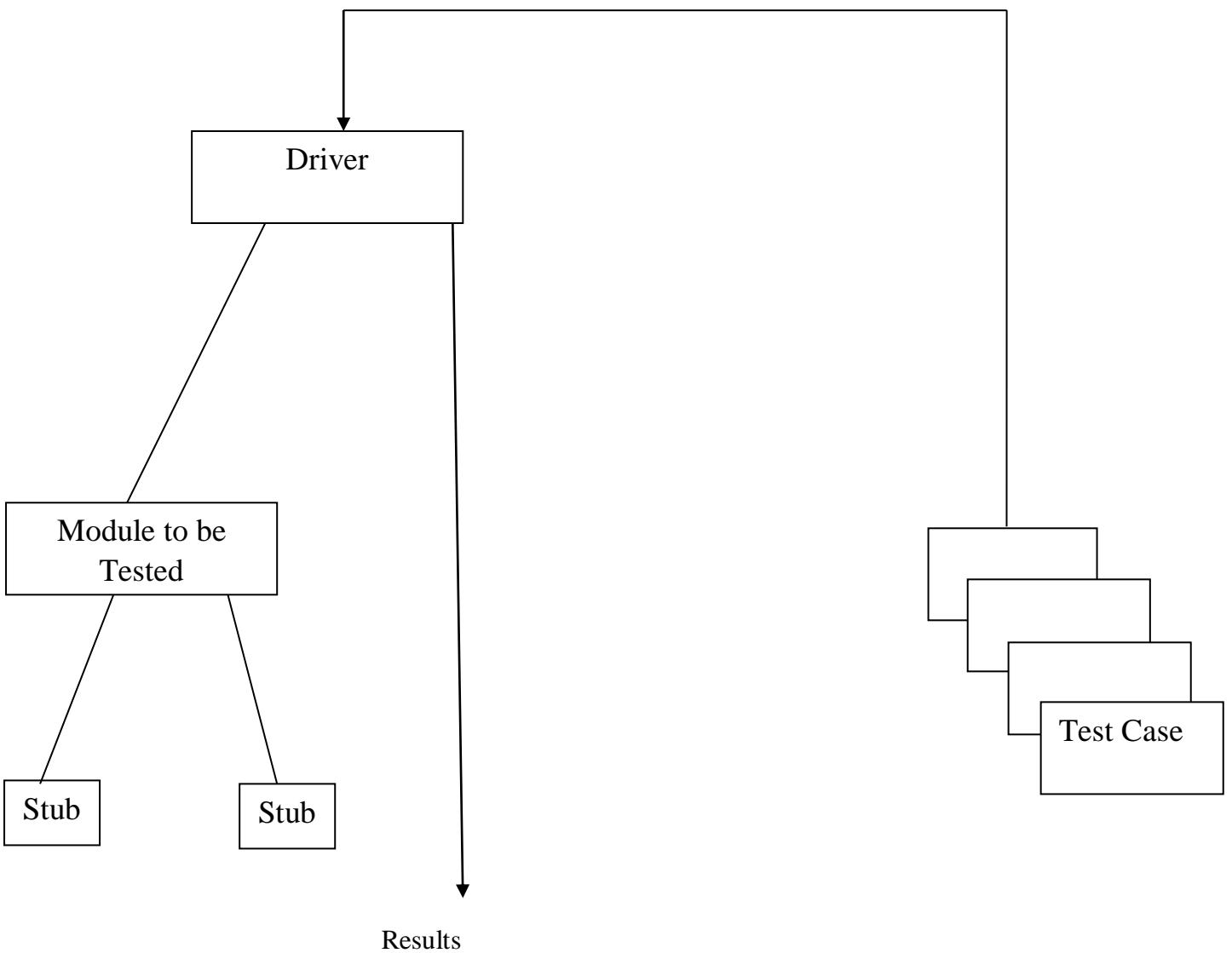


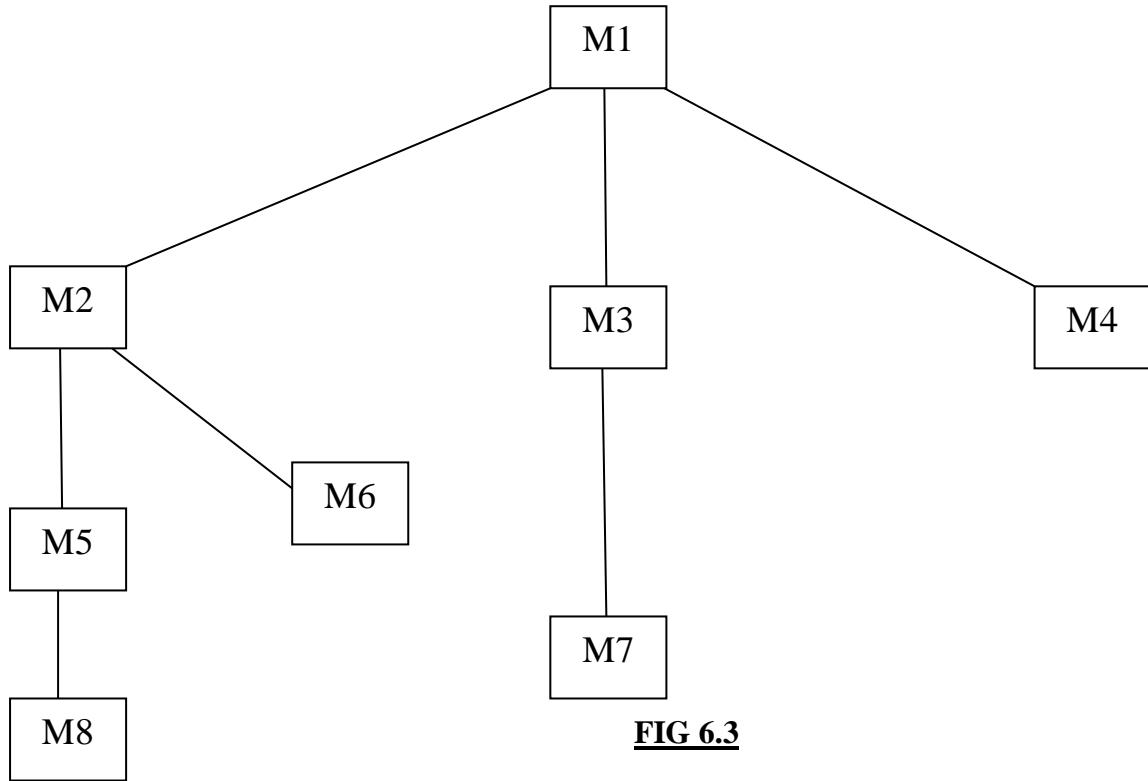
FIG 6.2

Integration Test

It is the technique of testing after integrating the module. It finds the error related to the interface. There are two method of integration test:

- a) Top Down Test
- b) Bottom Up Test

- a) **Top down Test:** - The modules are integrated by moving down from top to bottom. The modules can be integrated by either using depth-first integrated or breadth-first integration. In DFS modules all integrated from top to down on individual path. For e.g. M1, M2, M5, & M8 INTEGRATED FIRST. In BFS integration is level by level. For e.g. Modules M1, M2, M3 and M4 all are integrated first.



The steps of top-down test:-

- a) The main control module is used as a test driver and stubs are substituted for all components directly subordinate to the main control module.
 - b) Depending on the integration approach selected subordinate stubs are replaced one at a time with actual components.
 - c) Tests are conducted as each component is integrated.
 - d) One completion of each set of tests, another stub is replaced with the real component.
 - e) Regression testing may be conducted to ensure that new errors have not been introduced.
- b) Bottom up Integration:** - Integrates the modules from bottom to up. It has following steps:
- a) Low level components are combined into clusters.
 - b) Drivers are developed for clusters.

- c) Cluster is tested.
- d) Drivers are removed and Chester is combined moving upward.

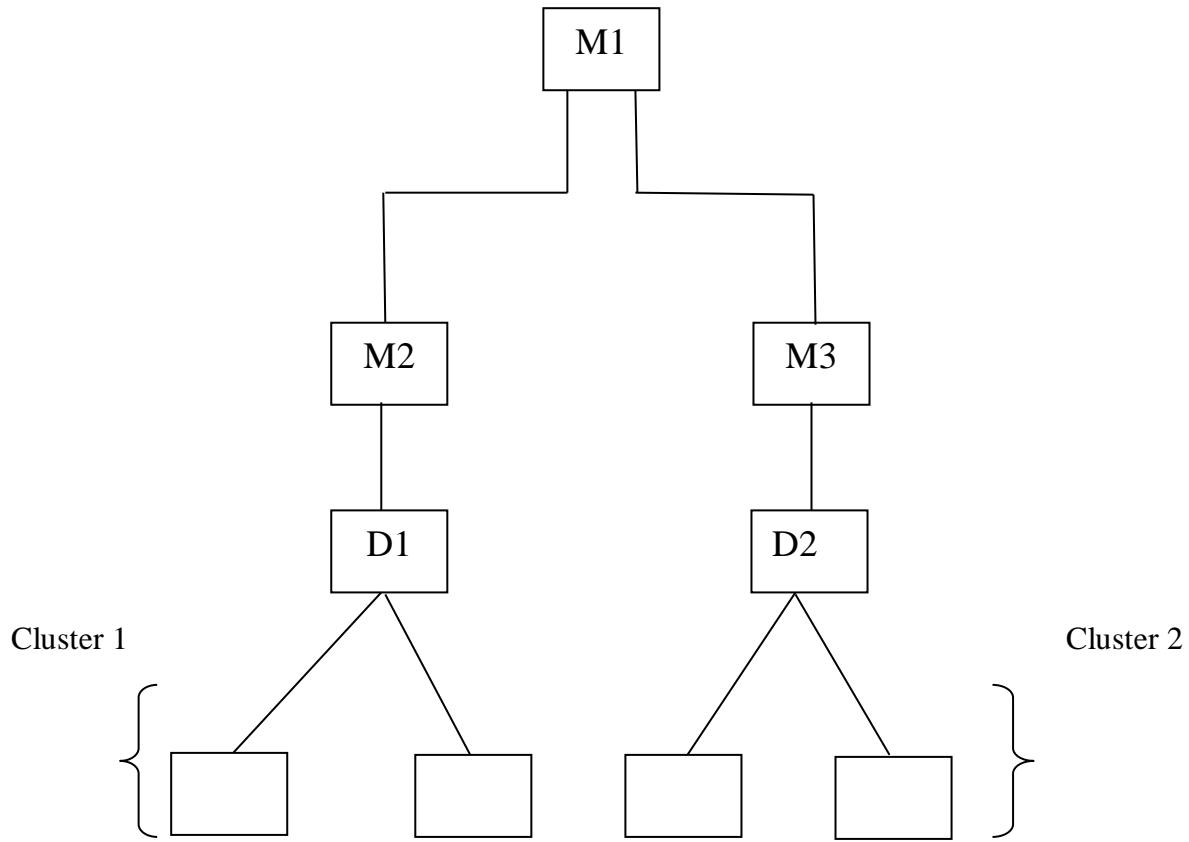


FIG 6.4

System Testing

It is a series of different tests to test the overall system. Although each test has a different purpose, all work to verify those elements have been properly integrated and performed allocated functions. The type of system tests are following:

- a) **Recovery Test:** - It is performed to ensure that the data can be recovered and system can be restarted even if the system fails. It is a system test that forces the software to fail in a variety of ways and verify that recovery is performed properly. If recovery is automatic re-initialization, checkpoint mechanism data recovery and restart are evaluated for corrections. If recovery requires human intervention, the mean-time-to-repair is evaluated to determine whether it is within acceptable limits.
- b) **Security Test:** - It is performed to verify that protection mechanisms built into a system are perfect or not i.e., can it protect system from improper penetration attempt. The system should be tested for any type of query attempt. During security testing

the tester play the role of individual who desired to penetrate the system. The faster may attempt to get password, may attack the system to break down the security may purposely cause system errors, may browse through unsecure data.

The good security testing will penetrate the system and break the security. So, the role of the system designer is to make penetration cost more than the value that will be obtained by breaking the system security.

c) **Stress Test:** - It is performed to test the abnormal situation i.e. how high we can crank the system before it fails. Stress testing executes a system in a manner that demands resources in abnormal quantity, frequency or volume. For example

- i. Special test may be design that generates ten interrupts per second, when one or two is the average rate.
- ii. Input data rates may be increased by an order of magnitude to determine how input function will respond.
- iii. Test cases that require maximum memory or other resource are executed.
- iv. Test cases that may cause thrashing in a virtual operating system are designed.
- v. Test cases that may cause excessive hunting for disk resident data are created.

Essentially, the tester attempts to break the program.

d) **Performance Test:** - It is used to test the run time performance of the system. It occurs throughout all the steps in the testing process. The performance of an individual module may be checked using white box method. It is necessary to measure the resource utilization.

Test case

A test case has components that describe an input, action or event and an expected response, to determine if a feature of an application is working correctly.”

- A test case is also defined as a sequence of steps to test the correct behavior of a functionality/feature of an application

A test case is a list of the conditions or issues of what the tester want to test in software. Test case helps to come up with test data. A test case has an input description, Test sequence and an expected behavior.

The characteristics of a test case are that there is a *known input* and an *expected output*, which is worked out *before* the test. The known input should test a pre-condition and the expected output should test a post-condition

How to write test cases?

Here is a simple test case format

Fields in test cases:

Test case id:

Unit to test: What to be verified?

Assumptions:

Test data: Variables and their values

Steps to be executed:

Expected result:

Actual result:

Pass/Fail:

Comments:

e.g.

Test case id 101

Field for Test:-

Login ID

PASSWORD

Assumption:-

User chooses any name for login id.

Password

Not visible

Test Report

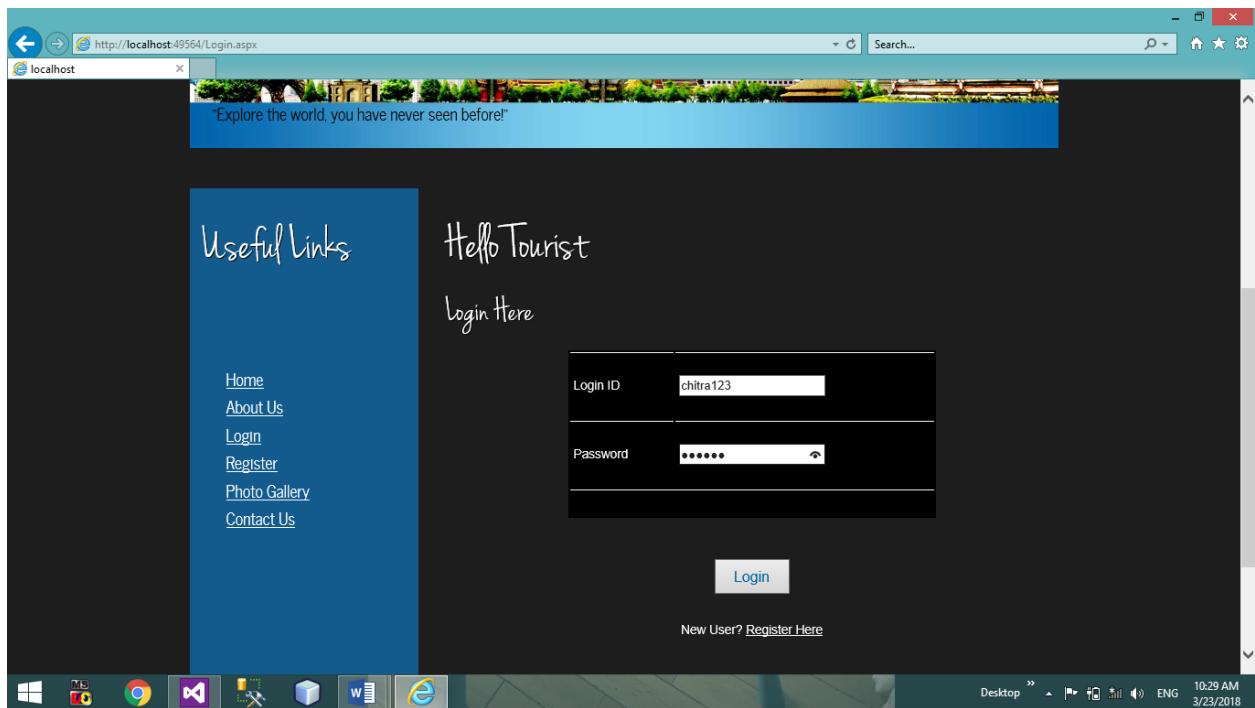


FIG 6.5

Test report

Login ID – Success

Password- Success

Debugging and Code Improvement

In ideal worlds, all programmers would be so skilled and attentive to detail that they would write bug-free code. Unfortunately, we do not live in an ideal world. As such, debugging, or tracking down the source of errors and erroneous result, is an important task that all developers need to perform before they allow end-user to use their applications. We will discuss some techniques for reducing the number of bugs in code up front.

There are three categories of bugs

Syntax error:

These errors occur when code breaks the rule of the language, such as visual Basic sub statement without a closing End sub, or a forgotten closing curly braces ({})) in c#. These

error the easiest to locate. The language complier **or** integrated development environment (IDE) will alert you to them and will not allow you to compile your program until you correct them.

Semantic error:

These errors occur in code that is correct according to rules of the compiler, but that causes unexpected problems such as crashes or hanging on execution. A good example is code that execute in a loop but never exists the loop, either because the loop depends on the variable whose values was expected to be something different than it actually was or because the programmer forgot to increment the loop counter. Another category of errors in this area includes requesting a field from a dataset, there is no way to tell if the field actually exists at compile time. These bugs are harder to detect and are one type of running error.

Logic error:

Logic errors are like semantic errors, logic errors are runtime error. That is, they occur while the program is running. But unlike semantic errors, logic errors do not cause the application to crash or hang. Logic error results in unexpected values or output. This can be a result of something as simple as a mistyped variables name that happens to match another declared variable in the program. This type of error can be extremely difficult to track down to eliminate.

Preventing Debug Write readable code:

Develop and make consistent use of naming and coding standards. It not that important which standard we use, such as Hungarian notation or Pascal, Casing (First Name) or other naming conventions, as long as we use one. We should also strive for consistency in our comments and encourage liberal commenting code.

Create effective test plan:

The only effective way to eliminate logic error is to test every path of your application with every possible data values that a user could enter.

This is difficult to manage without effective planning. We should create our test plan at the same time we are designing the application, and we should update these plans as you modify the application design.

Code Improvement:

We make the Class “Data context” in our project which is useful for reducing the code redundancy and make code consistency. “Data context” function improves the code, when by using the Class “Data context” we can create a connection with database, open the database, close the database, dispose the database, through the “Data context” Class can access the data table. In our project we can create the object of the “Data context” then after creating the object we do not need to write the functions, such as database connectivity, open connection, close connection, dispose connection, get data table connection. “Data context” Class makes the code improvement in our project. Through the “Data context” function we can insert, delete, update the records and show the data tables and check the database so can say that the “Data context” function is more useful and make code improve.

INPUT / OUTPUT REPORT

Input of the Registration page of users

Useful Links

Registration Page

Enter your information and register yourself

First Name	chitra
Last Name	puri
User ID	chitra.puri
Password	*****
Confirm Password	*****
Address	Khichri_puri delhi
Country	India
Email ID	chitra@gmail.com
Mobile Number	7042559582
Language	Spanish

FIG 6.6

Output of the Registration page of Users

Useful Links

Hello Tourist

Login Here

Login ID	
Password	

Login

New User? [Register Here](#)

Home | About Us | Login | Register | Photo gallery | Contact Us

FIG 6.7

Input of the login page of User

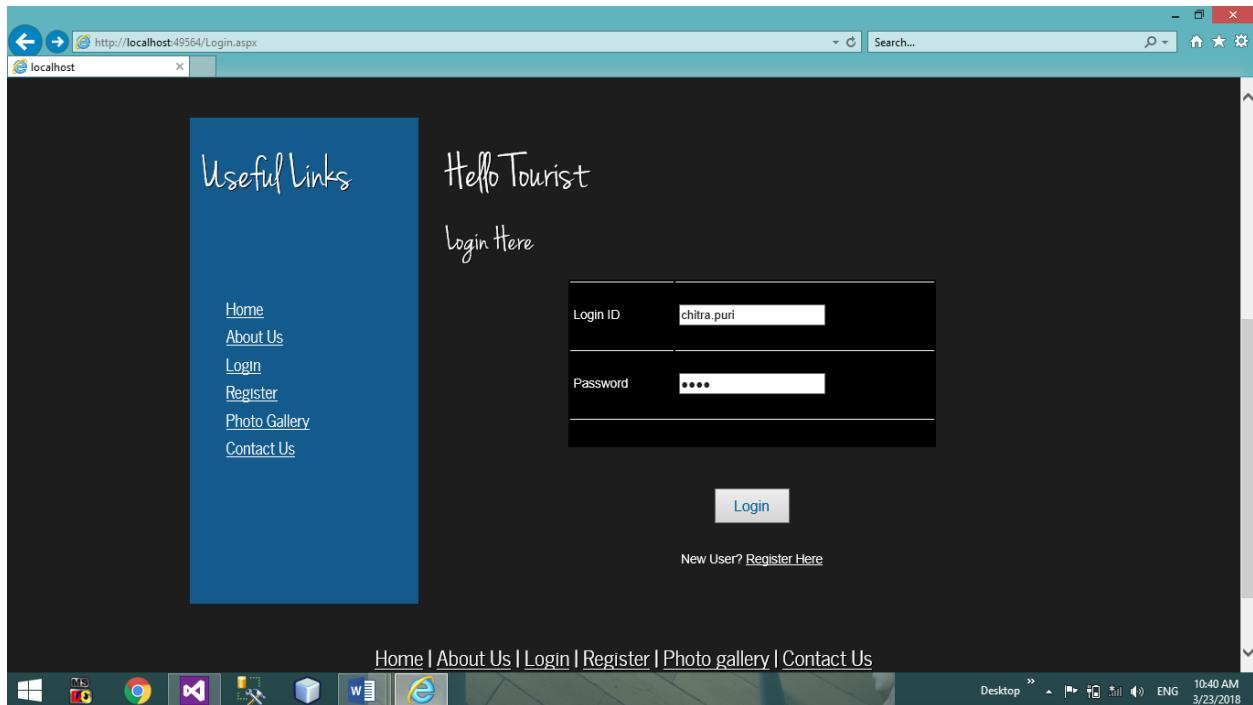


FIG 6.8

Output of the login page of User

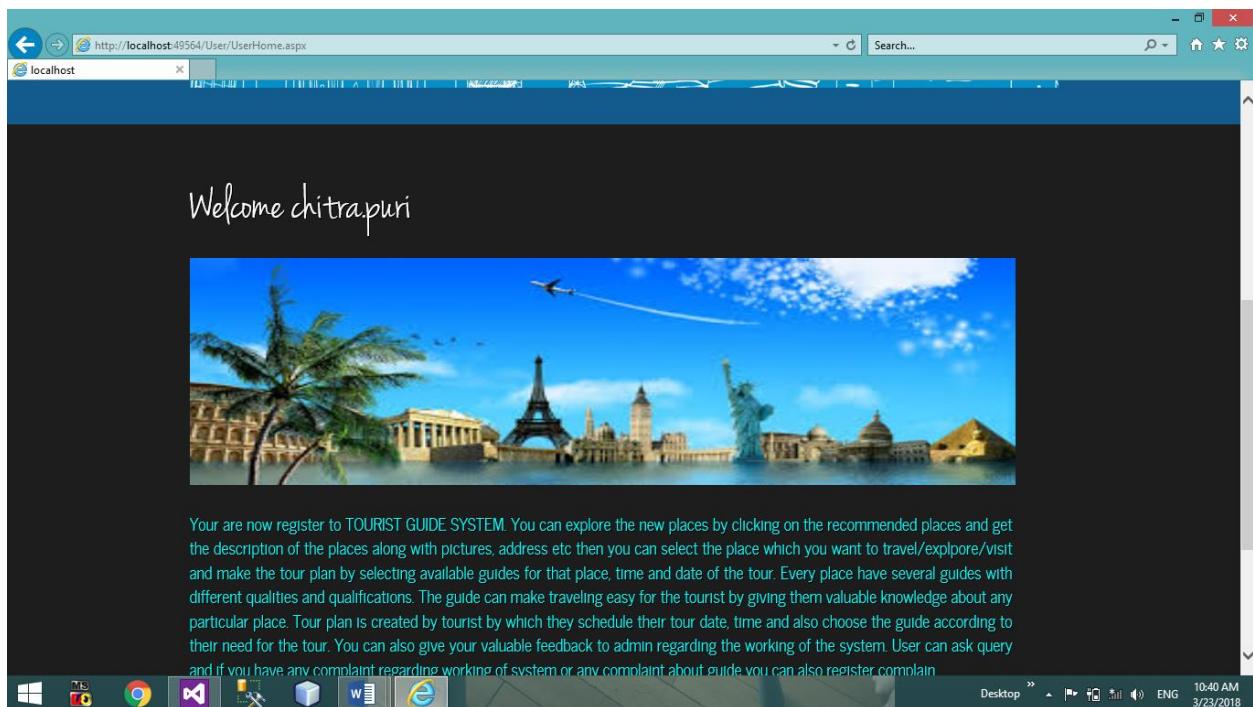


FIG 6.9

Input at time of making tour plan from user

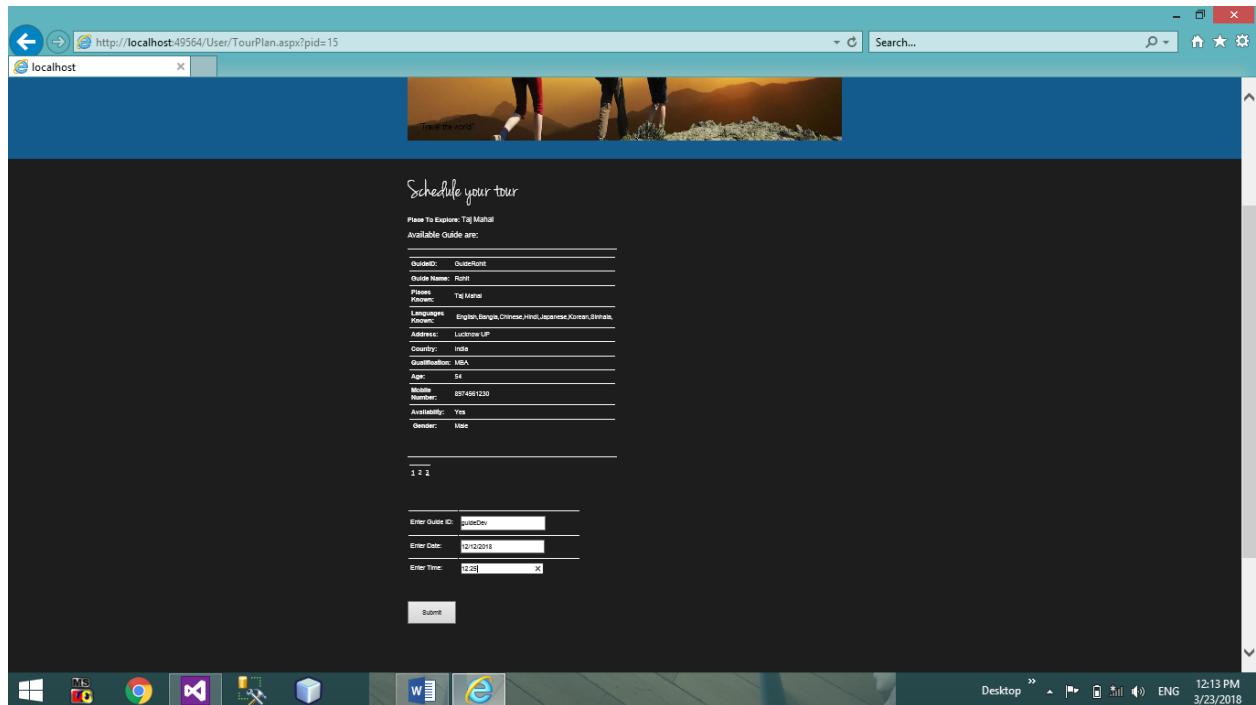


FIG 6.10

Output at time of making tour plan from user

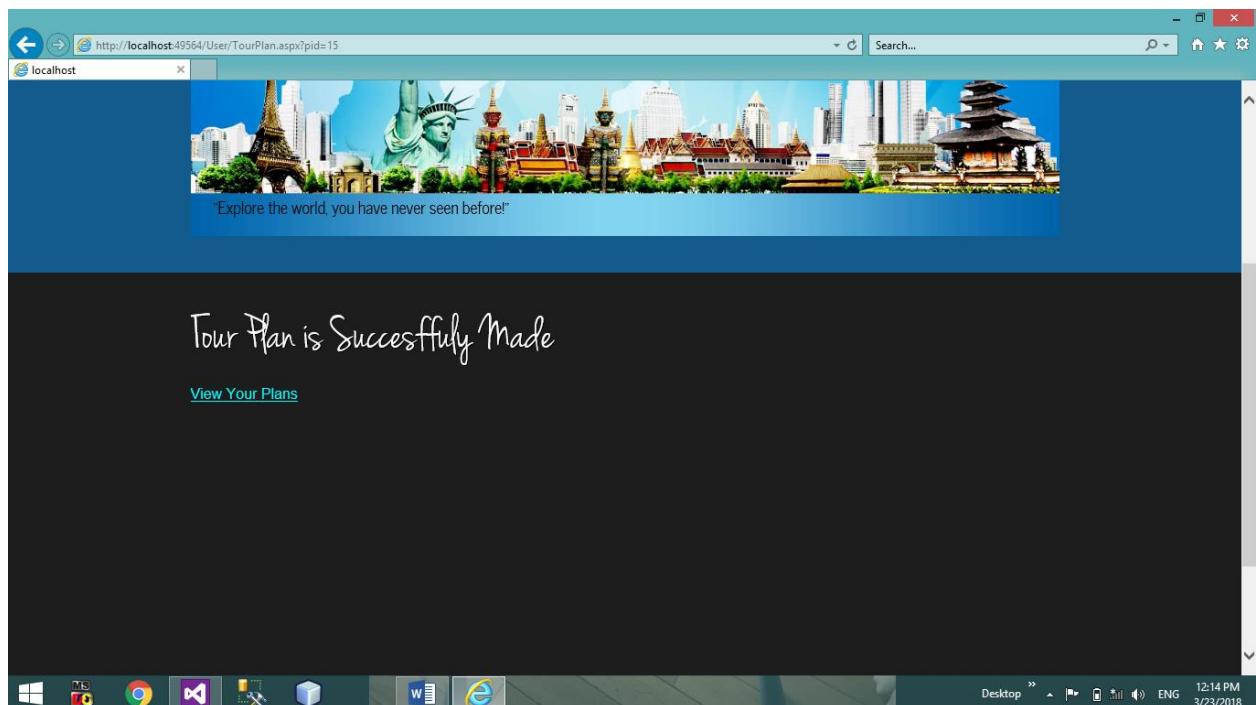


FIG 6.11

Input at time of adding places by admin

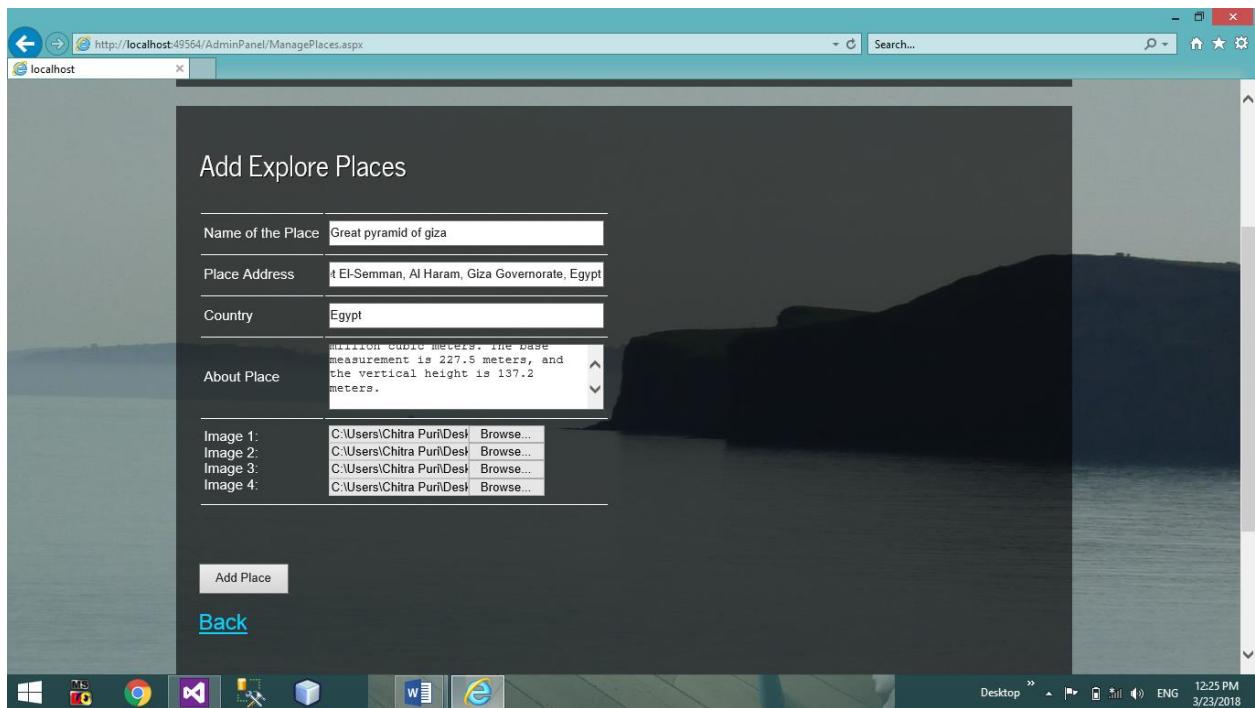


FIG 6.12

Output at time of adding place by admin

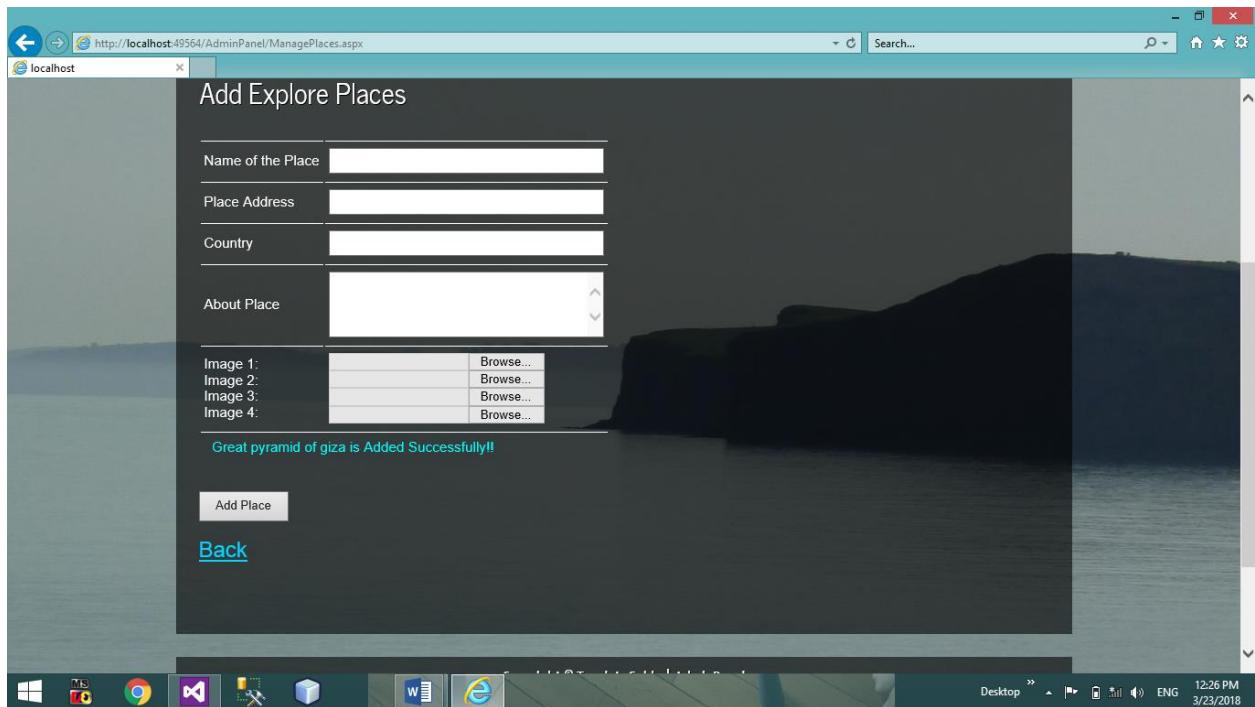


FIG 6.13

Input at time of adding tourist guide from admin

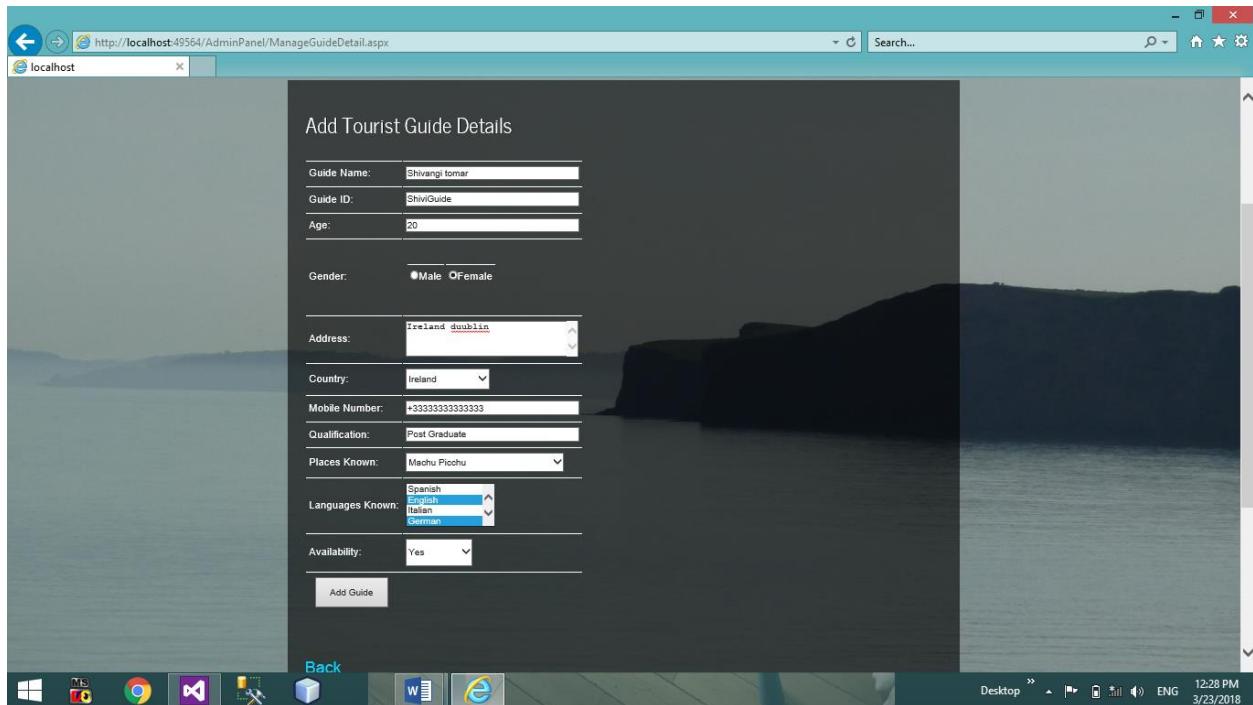


FIG 6.14

Output at time of adding tourist guide from admin

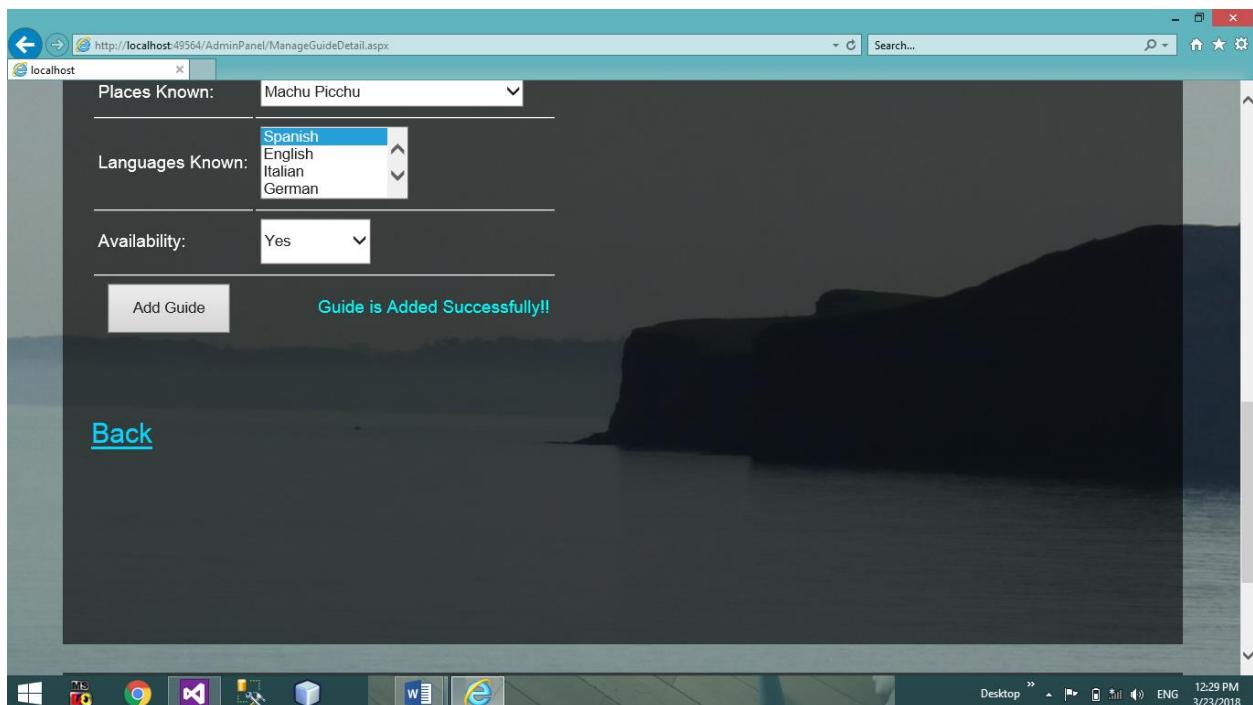


FIG 6.15

Input at time of adding staff by admin

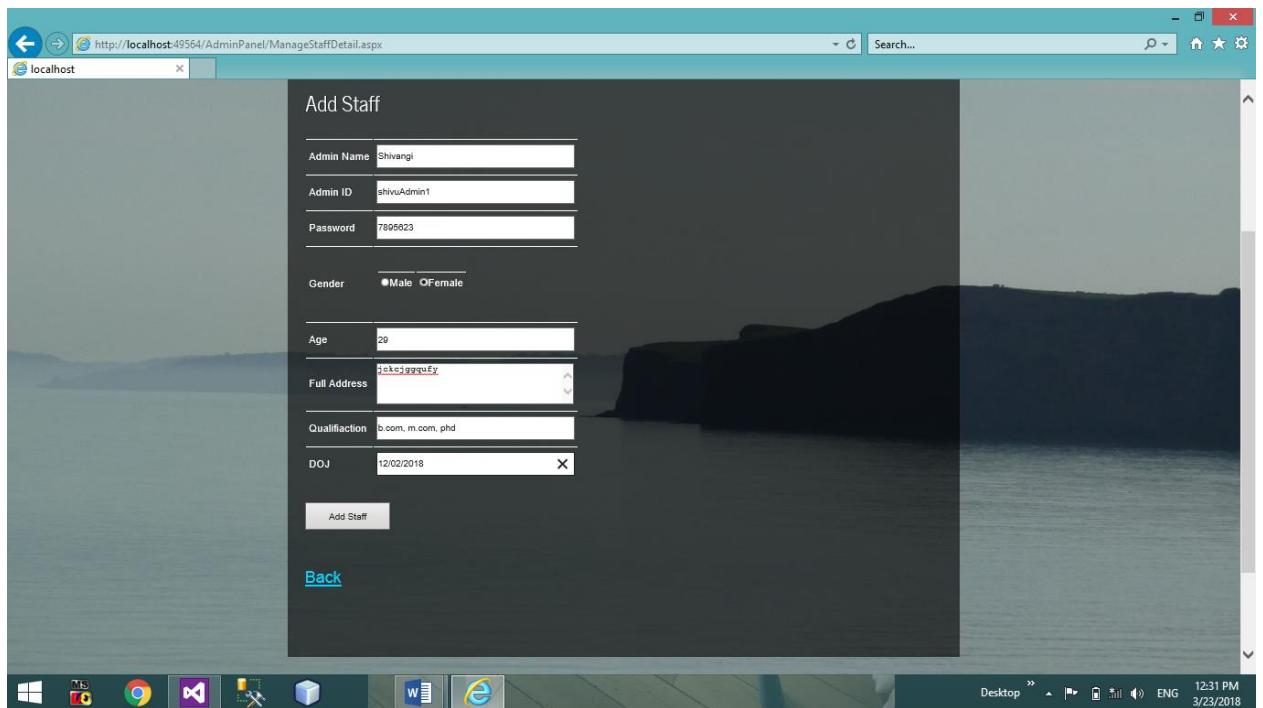


FIG 6.16

Output at time of adding staff by admin

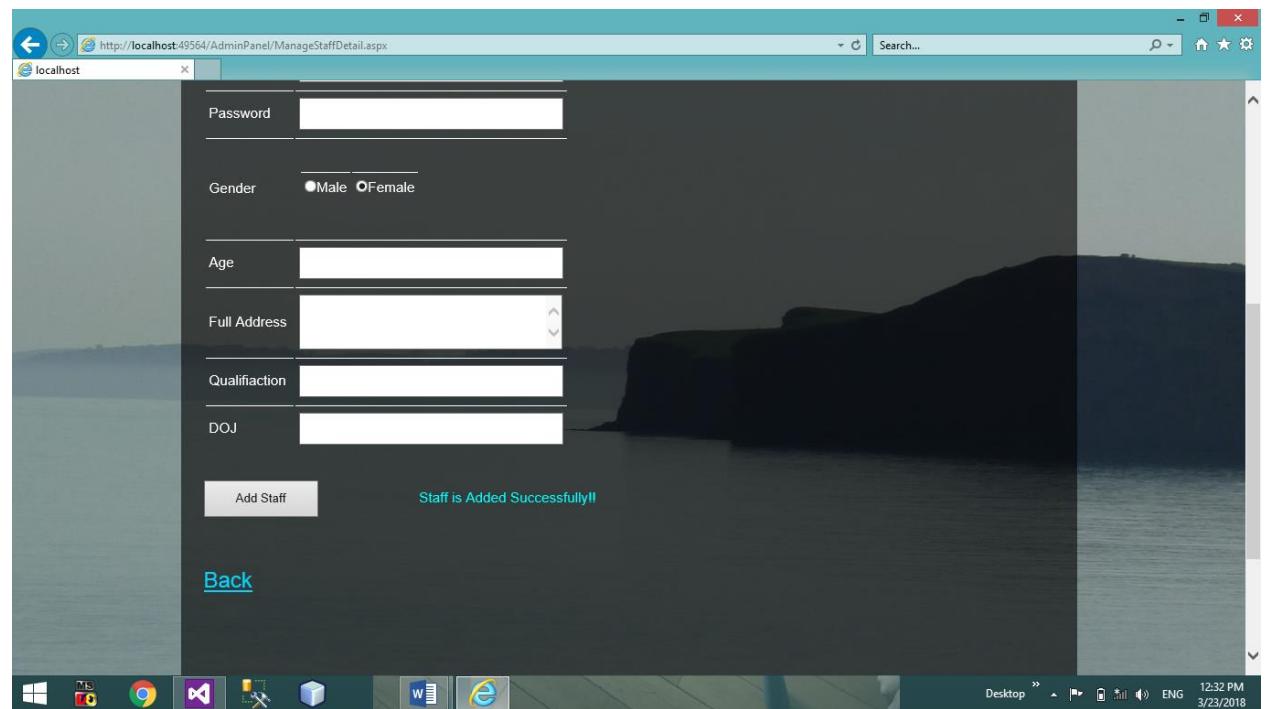


FIG 6.17

CHAPTER 7

LIMITATION AND FUTURE SCOPE

7.1 Limitation

1. Without registration tourist cannot make tour plan and select guide.
2. Maps are not provided.

3. 7.2 FUTURE SCOPE

- 1) We can add new features as and when require.
- 2) Reusability of this system is also possible.
- 3) We can give cab and hotel facilities to the users.
- 4) We can give weather conditions of every place so as to make sure that the user will be comfortable to visit the desired place.
- 5) We can charge from tourist or user for providing guide.
- 6) We can give location of the explore places on map also.

REFERENCES:-

- 1. SvetlinNakov, VeselinKolev, Nakov's Team, “Fundamentals of Computer Programming with C#: Programming Principles, Object-Oriented Programming, Data Structures”, “Faber Publishing (19 March 2019)”.**
- 2. Shawn Wildermuth ,”Fundamental of javascript for c#”,
“<https://www.pluralsight.com/courses/js4cs>” , DEC, 4, 2020**
- 3. Sarah Martin , ”Programming using HTML ,CSS and Javascript” in
“https://www.researchgate.net/publication/321043238_HTML_CSS_and_JavaScript” , November 2017 , DOI: 10.1007/978-1-4842-2937-8_5**
- 4. Dick Oliver ,Michael Morrison , “HTML5” in ”Sams Teach Yourself HTML and CSS in 24 Hours” , Sams; 7th edition (14 December 2005).**
- 5. Microsoft visual studio 2015 Unleashed Publication(Third Edition)**
- 6. KanchanNaik ,”Introduction to software design in c#” ,**
- 7. “<https://www.c-sharpcorner.com/UploadFile/bd5be5/design-patterns-in-net/> ,Dec 12, 2020KalmanToth, Database design with SQL” , in
“SQL Server 2012,Database Design” , 31 December 2012**
- 8. PANKAJ JALOTE ,”Concept of software engineering”, in An
“Integrated Approach to Software Engineering” , DOI:10.1007/978-1-4684-9312-2 , Edition Number:2**
- 9. .NET 4 for Enterprise Architects and Developers**
- 10. Model-Based Software Testing and Analysis with C#**
- 11. Data Structures and Algorithms Using Visual Basic.NET, Object-Oriented Programming with Visual Basic.NET, Process Engineering and Design Using Visual Basic, Data Structure and Software Engineering,**
- 12. Software Application Development, Real-Time Software Design for Embedded Systems, Embedded Software Development, Component-Based Software Engineering, Business Modeling and Software Design**