#### TRAVELFY- A WEB APPLICATION FOR MANAGING TOUR GUIDE

 $\mathbf{BY}$ 

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

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#### **APPROVAL**

This Project titled "Travelfy- A web application for managing Tour Guide", was submitted by Atiqur Rahman, ID 182-15-11663 and Md. Sazzad Hossain Anik, ID 182-15-11647 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering (BSc) and approved as to its style and contents. The presentation has been held on 13th September 2022.

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We hereby declare that, this project has been done by us under the supervision of, MS. ASMA MARIAM, Department of CSE, Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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#### **ABSTRACT**

The main goal of this project on an Advance tour guideline is to make travel for visitors simple and convenient, starting with locating the destinations and additional services like lodging and transportation. Two modules, Admin and User, make up this project. The admin of this Advanced Tourism System project will log in using the default username and password, and the admin has the power to add the travel package form Dhaka to any other location of different duration of travel and different budget, and can add hotels in different location. Admin will also add facilities available in those hotels such as parking space so that general user will find out about those facilities before booking those hotels. Admin can also add, remove, edit information any time. On the other hand, user will be able to search and book hotels only after they send their email and user name to the admin. They can also sign up in the website. The booking system will set the username and email direct form the account information. User will be able to find out the best available package within their budget. User will able to find hotel and book those hotels by submitting their request to the admin form booking form. No payment get way is integrated with it. So, after requesting for the booking the admin will perform remain actions manually. After choosing the appropriate details, following a successful payment, the booking confirmation will then be presented. The user can provide the administrator comments if he believes it is necessary.

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#### CHAPTER 1

#### INTRODUCTION

#### 1.1 Introduction

Technology is advancing daily in the modern period, and many corporations exploit it to their own advantage. Our research shows that it's becoming bigger every day. We need the aid of modern technology to keep or handle this vast amount of data. The number of tourism applications is growing daily, and we need an interactive tourism application to maintain their internal relationships as well as to safeguard or govern their data. The tourism opportunities will effectively communicate with one another thanks to this application. Additionally, it will foster excellent relationships among many stakeholders. For some reason, the majority of tourists are even unaware of their level of protection and opportunity. People who travel and stay in locations other than their homes for leisure, business, and other reasons are engaged in tourism. Over the past few decades, tourism has shown to be an engine for growth, boosting the economies of many nations. Today, many view vacations as a need rather than a luxury. Tourism necessitates coordination and collaboration between travelers, tour guides, and travelers. The following is the application's primary objective:

- i) Provide accurate information on trip packages.
- ii) Offer a variety of travel services
- iii) Provide a range of travel-related services
- iv) Give consumers the finest services possible

#### 1.2 Motivation

While seamless travel is still in our collective dreams, it is possible to see how simple life would be if travelers, travel service providers, and all of their equipment were connected via the Internet and sensors. Smartphones are considered essential travel gadgets by 88% of travelers, and 75% of business travelers. In fact, smartphones help people work more productively and get more than six hours of sleep per night. Therefore, we are creating a cross-platform tourist application while now just concentrating on online apps. The primary goal of this effort is:

- i) The user may quickly book
- ii) Information about appropriate packages
- iii) Manage the users, packages, and Issues with ease.

#### 1.3 Objectives

The real-time elements for creating an Travelfy- A web application for managing Tour Guide are mostly covered by the scope. The programs that enable online booking, services, place finding, etc. are the main subject of the article. This method may be used to help in the selection of regional and for-profit software products, while it is also intended to establish the specifications of the software that has to be built. The standard may be used as a template to define an organization- or project-specific standard or it can be used to directly construct software requirements specifications. The primary attributes are:

- i.. Login
- ii. Log out
- iii. User profile
- iv. Update information
- v. Tour History
- vi. Booking.

#### Admin:

- i. Create tour packages
- ii. Manage your packages
- iii. Manage Booking
- iv. Manage issues
- v. Manage Enquiries.

#### 1.3.1 Stakeholders

There are three types of stakeholders in "Travelfy- A web application for managing Tour Guide" project. Such as:

- i. Tourist.
- ii. Hotel and place owners
- iii. Government/organization

To complete this project on time we need to prepare a project schedule. It helps to remind what task needs to do within the timeframe.

Table 1.3.2: Project Schedule

Activities	<b>Duration (in week)</b>	Total week
Brainstorming	Week 1	1
Problem identification	Week 1, Week 2	2
Requirement specification	Week 2	1
Requirement analysis	Week 2, Week 3	2
Design specification	Week 4	1
Quality assurance	Week 4	1
Database design	Week 5	1
Tourist part	Week 5, Week 6, Week 7,	4
Tourist part	Week 8,	7
Tourist & tourism company	Week 10, Week 11, Week	4
portion	12, Week 13,	4
Test case	Week 4, Week 8, Week 10,	3
Unit testing	Week 13	1
Black-box testing	Week 14, Week 15	2
Software release	Week 16	1

The release plan is given below:

Table 1.3.3: Release Plan

Version	Feature	Date
v0.1	Web-based system	10-12-2021
v0.2	Manage user, message, comment	04-08-2022

#### **1.4 Expected Outcome**

Our project should have a clear, financially-focused result. As of now, our job is just proceeding according to plan. So, we're hoping for a good outcome and a useful intelligent tourist system for the user. The user can choose one of the available packages or find his own way out. This technology offers a user-friendly environment as well. Users can work with the system to gather data for various locations. The user may then select whether a location is appropriate for him or not and where he wants to go. We are updating as much of the data in our database as possible in order to keep it as current as possible. We are also aware of the differences between accurate and contaminated data. We are collecting information from reputable sources in order to decrease any form of user harassment. Of course, we will offer a variety of sign-up options as a user-friendly system to make using the "Travelfy- A web application for managing Tour Guide" simple and enjoyable.

#### 1.5 Report Layout

This project progressively provides a comprehensive overview of our system, as well as any connected work and terms. We just conducted study on this topic to determine whether there is room for expansion. We discuss the difficulties we face and the challenges we face in chapter 2. We go into further detail about the three background stages in chapter 3. We also go over the requirements in detail and make an effort to identify user demands. In chapters 4 and 5, we describe the problem we address and the tools we employ to carry out the project. In chapter 6, we conclude with a few observations and make some recommendations for further research.

#### **CHAPTER 2**

#### **BACKGROUND**

#### 2.1 Introduction

Access to relevant and accurate information is one of the most important parts of tourism. For people looking for accurate information, the accuracy of the information is a critical problem. Furthermore, there are a ton of websites available, but none of them have an intelligent application to improve the effectiveness of the material on tourism websites. The "intelligent tourist management system" uses a variety of cutting-edge technology to try and close the gap. The major goal of this application is to provide effective tourist solutions.

#### 2.2 Related Works

To interact with various tourist destinations, there are several communication tools and platforms available. Additionally, travelers may utilize a variety of search engines to learn more about potential trip destinations. The issues with tourism cannot be connected, however, on a single platform, where visitors may instantly communicate, and receive answers to their desired questions, and services from a tourism firm. We thus believe that this unified intelligence platform would assist travelers in planning their ideal journey.

#### 2.3 Comparative Study

Our "Travelfy- A web application for managing Tour Guide" project has been designed to be used as a comprehensive web-based solution and to fulfill the standards for applications based on computational intelligence. We researched local and international tourist startups, websites, and opportunities before to beginning this project. On the market, there are several websites and some applications. Most program does not, in the consumers' eyes, provide the optimum user experience. Additionally, some have failed to meet user requirements on a certain point. On the other side, our program will be more enjoyable to use. Since the very first release, we have done our best and continue to do our best to meet all user demands and requirements.

Designing an intelligent tourist system based on computational intelligence is the fundamental goal of this work. We are confident that the system will be a very practical tool for travelers everywhere and a cutting-edge addition to this new tech-based society.

#### 2.4 Scope of the Problems

Our project's major objective is to offer an "intelligent tourist system" that is web-based. It will be a simple method for travelers to communicate with travel agencies in real-time. For visitors, the system is largely secure. Tourists will find it easier to choose the tour packages, lodgings, and locations of their choice. Additionally, thanks to our clever idea, visitors may select or create their own packages.

#### 2.5 Challenges

The system's tasks are to offer security, round-the-clock assistance, local possibilities for each tourist to participate in a life-or-death scenario, and a reliable source of information. But we are looking into this issue to fix it.

#### **CHAPTER 3**

#### REQUIREMENTS SPECIFICATION

#### 3.1 Business Process Model

This section often outlines the tasks that must be completed in order to achieve the desired results. As a consequence of identifying possible changes and improvements, we know that business process modeling is the graphical depiction of an organization's business processes or workflows. Usually, many graphing techniques are used to accomplish this.

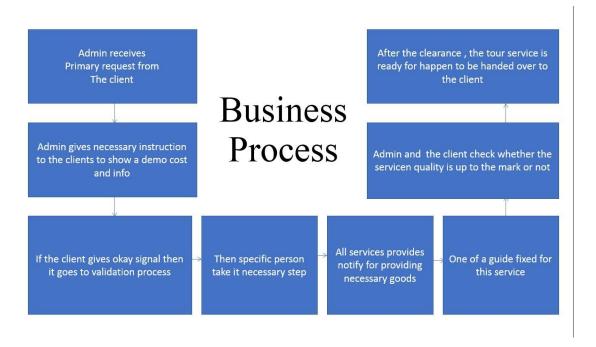


Figure 3.1.1: Business process modeling

#### 3.2 Requirement Collection and Analysis

For new or changed goods, requirements are required, and specifications are examined in light of user exceptions and real foundation. There must be measurable, pertinent, and specific requirements. In order to do a requirement analysis, gather and specify requirements. In general, requirements are gathered using a variety of methods, including

surveys, user observation, interviews, and document research. These criteria are listed in accordance with pertinent areas. I discussed the needs with my supervisor and outlined them from our point of view. Fortunately, my boss was extremely helpful and nice at work, so it was simple to get real-world needs from us.

#### 3.3 Use Case Modeling and Description

Use case diagrams are used to collect system requirements. Use cases are often used to determine system functionality during the analysis phase of a project. Actors and use cases are separated in the system. Here are the actors:

- i. User
- ii. Admin

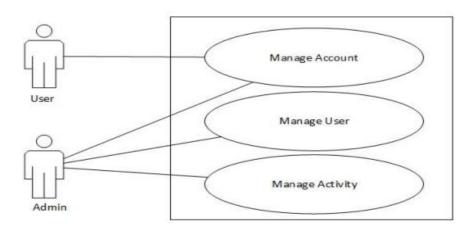


Figure 3.3.1: Use Case modeling For Admin

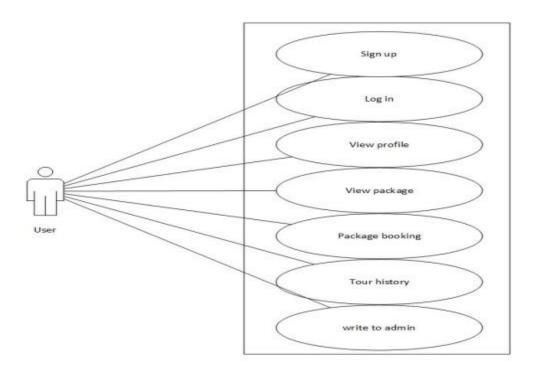


Figure 3.3.2: Use Case modeling For User

Table 3.3.2: Use case description of User

Use case number	1
Use case	Manage account
Goal	User can sign up & log in into the system, view profile, book for package and view their tour history.
Success end condition	User successfully sign up & log in into the system, view profile, book for package and view their tour history.
Failed end condition	User failed to sign up.
Primary actor	User

Secondary	Admin	
Actor		
Description /	Step	Action
Main	1.1	User browse the system
Success	1.2	Click on sign up
Scenario	1.3	Enter full Name, email, mobile number & password
	1.4	Click on create account & account created
	2.1	Click on sign in

	2.2	Enter email and password
	2.3	Click sign in and log in the system
	3.1	Click on view profile
	3.2	Profile viewed
	4.1	Click on tour packages
	4.2	Appear tour packages
	5.1	Click for booking
	5.2	Pending for approval
	6.1	Notification send to admin
	6.2	View the tour history of booking
	7.1	Click on write us
Alternative	User car	n't sign up for the system or can't view their profile or can't
Flows	book.	

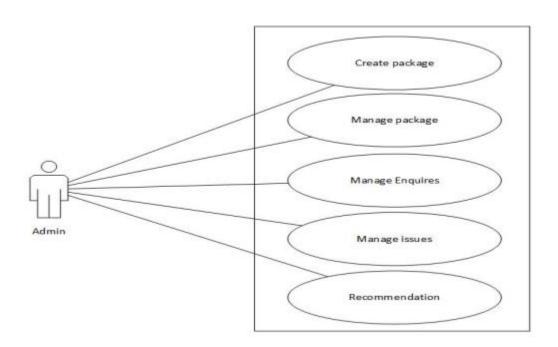


Figure 3.3.3: Manage Account

Table 3.3.3: Use case description of Admin

Use case	2		
number			
Use case	Manage	Manage User	
Goal	Admin o	can log in into system, view user profile and approve/cancel	
	the user	booking	
Success end	Admin s	successfully log in into the system, view user profile and	
condition	approve	/cancel the booking	
Failed end	Admin f	ailed log in into the system, view user profile cannot	
condition	approve	cancel the booking	
Primary actor	Admin		
Description /	Step	Action	
Main	1.1	Admin browse the system	
Success	1.2	Click on admin login	
Scenario	1.3	Enter user name and password	
	1.4	Click on sign in	
	2.1	Log in to the system	
	2.2	Click on user details	
	2.3	View the user details	
	3.1	Click on manage booking	
	4.1	Ask for booking list	
	4.2	Approve/cancel the booking using contact form	
	5.1	Booking Successfully approved/canceled using mail	

Alternative	User cannot log in for the system
Flows	

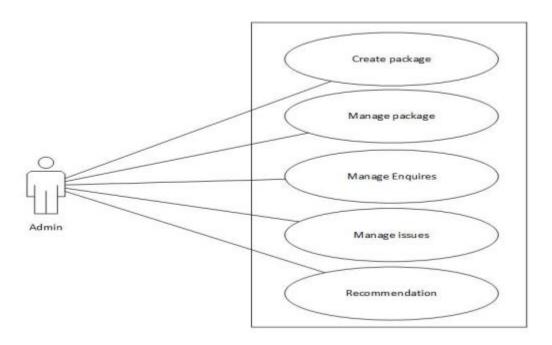


Figure: 3.3.4 Manage Activity

Table 3.3.4: Use case description of Manage Activity

Use case	3					
number						
Use case	Manage	Manage Activity				
Goal		Admin can create packages, manages packages, manage enquires, manage issues and recommendation				
Success end	Admin s	Admin successfully create packages, manage enquires, manage issues				
condition	and reco	and recommendation place				
Failed end condition						
Primary actor	Admin	Admin				
	Step	Action				

Description /	1.1	Browse the system
Main	1.2	Log in as admin
Success	1.3	Click on create package
Scenario	1.4	Insert information & then create
	1.5	Create package successfully
	2.1	Click on manage package
	2.2	View details
	2.3	Insert information & update
	2.4	Package updated successfully
	3.1	Ask for manage booking using mail
	3.2	Confirm booking using mail
	3.3	Confirmation sends to the user using mail
	3.4	Cancel booking using mail
	3.5	Cancel info send to the user using mail
	4.1	Click on manage enquires and then pending
	4.2	Read the enquires
	5.1	Click on manage issues and then view
	5.2	View the issues
Alternative	User car	nnot sign up for the system or can't view their profile or cannot
Flows	book.	

## 3.4 Logical Data Model

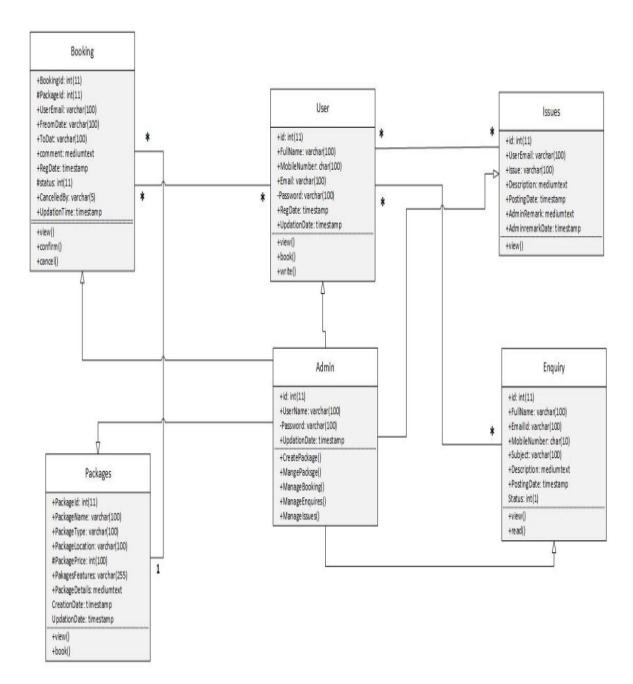
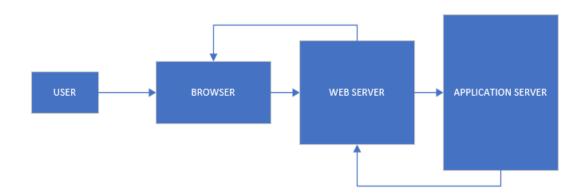


Figure 3.4.0.: Logical Data Model

#### 3.5 Design Requirements

The process of establishing a system's architecture, parts, modules, interfaces, and data in order to meet a system's specific application needs is known as systems design. Our application's system design has been displayed, and it includes an architectural design, use case diagram, sequence diagram, and class diagram. This project's whole design is user-friendly. For this project, contemporary and updated design technologies were employed. such as Canva, Create, and Microsoft Visio. Future edits of any form are permitted as time allows. The working process for web applications is linked below.



3.5.1: Design Requirements

#### **CHAPTER 4**

#### **DESIGN SPECIFICATION**

#### 4.1 Font-end Design

This software is created using a variety of tools and technologies. An online application powers this system. The tools that we utilized to create this program are listed below.

- i. HTML5
- ii. CSS
- iii. Bootstrap 4
- iv. JavaScript
- v. jQuery

#### 4.2 Back-end Design

Because there are so many options accessible now, choosing the best web development framework to create a web application for a business may be a very challenging undertaking.

Because they utilized it on a recent project or because they are better accustomed to it, developers must select a language and framework. Developers should determine which language and framework are the greatest fits for their desired products before starting a new software application. Because of security, quick development, scalability, variety, and support, we decide to utilize the Python-based framework (Django). We employed MySQL database management tools for our application's backend design. Python's Django framework connects the display layer and data layer using the MVC design. We anticipate using NoSQL database approaches in our project soon. Table 4.2.1 shows the details of tools and technology.

Table 4.2.1 Tools and Technology

Tools & Technology	Version	Released Date
Python	3.9	April 04, 2021
Django	3.0.4	April 1, 2019
MySQL	8.0	April 25, 2019
PyCharm	2021.3	July 28, 2021

#### 4.3 Interaction Design and UX

#### DESIGN

We need to utilize HTML5 and CSS. Along with Bootstrap which is a CSS framework. For functional purpose JavaScript, and JQuery has been used because it is a web-based system. They should, in my opinion, create a web-based system.

#### COMPLETION

This initiative will make it simple to reach tourist destinations. Every section will be updated whenever possible.

#### PROJECT DELIVERABLES

Even if it is late in the development process, the software projects must accept changing needs. delivering functional software as quickly as feasible. The delivery of a software project can then result in process improvements, new or better services, higher-quality services, advantages from risk reduction, and an increase in the staff's or products' flexibility or efficacy.

#### RESOURCE ALLOCATION

A strategy for employing the resources that are now available to produce this software is created during the resource allocation intuition step of the software planning process. Additionally, human resources (HR) are always a crucial component of software projects in order to fulfill long-term objectives.

#### 4.4 Implementation Requirements

The efforts that go into identifying the requirements fulfill for a new or modified product are known as requirements analysis in systems, and they occur very early in the process of designing a software project. Therefore, when studying, documenting, verifying, and managing software requirements, a requirements analyst must take into consideration the potentially competing requirements of the various stakeholders.

#### **CHAPTER 5**

#### IMPLEMENTATION AND TESTING

#### 5.1 Implementation of Database

This is a database snapshot from an application that provides intelligent travel advice. Additionally, all of the characteristics of our application that being the background system's records as well. In this project, we handle database data using MySQL workbench tools.

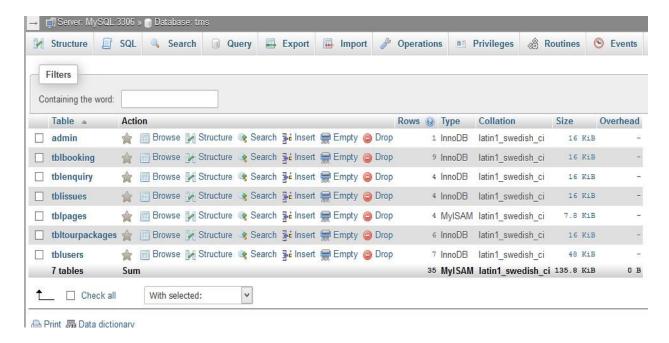


Figure 5.1.1: The database table of the intelligent tourism guide application

## 5.2 Implementation of front-end design

## Homepage

To use this system, a user must travel to the landing page or home page. There are login and signup links on the home page.



Figure 5.2.1: Screenshot of the Home Page

## Registration

New user must sign in here with a valid email and hard password in order to use this system.

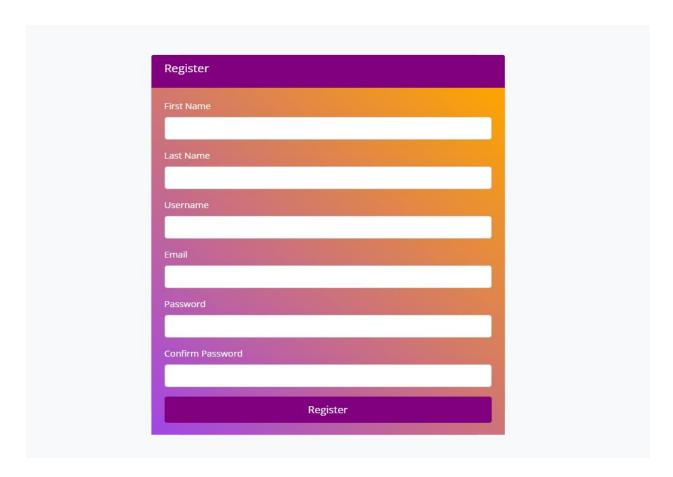


Figure 5.2.2: Screenshot of the Register Page

## Log In

Registered user can view the site as a member but they must login first using this login form.

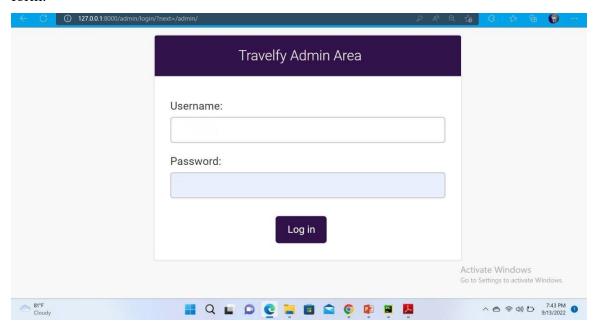


Figure 5.2.3: Screenshot of the Sign in Page

## About us

This page described about the intelligent tourism guide application including the company.

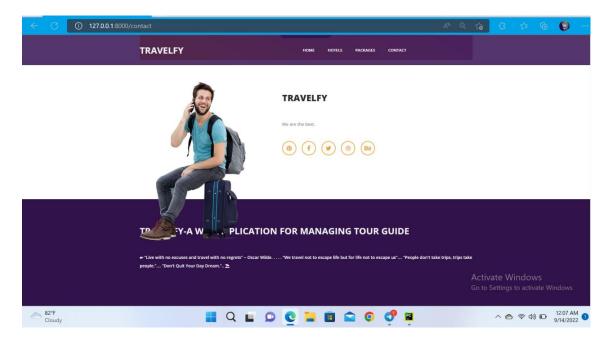


Figure 5.2.4: Screenshot of the About Page

## **Contact us**

If there any necessary query then users can be contact with the respective person.

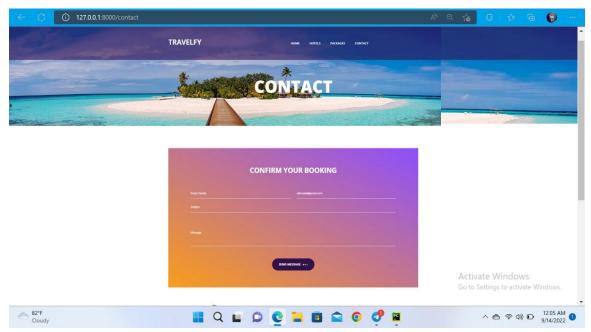


Figure 5.2.5: Screenshot of the Contact Page

## **Hotel Page**

This page presents that customers can ask any query through this page with providing their specific query.



Figure 5.2.6: Screenshot of the Enquiry Page

## Package list

Sometimes users want to go with most flexible tour plan. Therefore, this page presents for them.

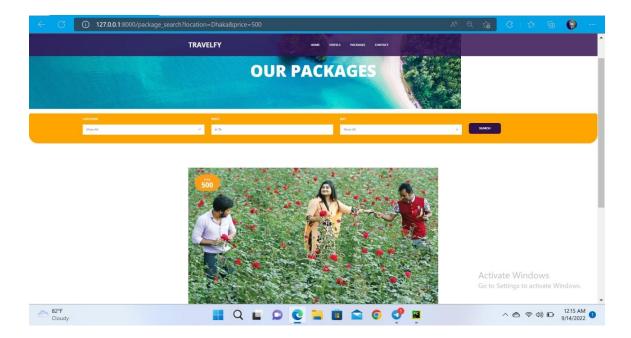


Figure 5.2.7: Screenshot of the Package List

## **5.2.8.** Car page

If you have the short budget or a specific budget then you can use this recommendation page.

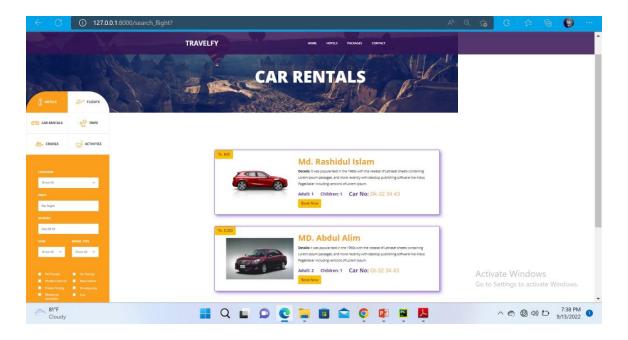


Figure 5.2.8: Screenshot of the Recommendation Page

#### **5.3 Implementation of Interactions**

Modern advances and technology have given the tourist industry a new dimension and given rise to a variety of tools and technologies. It can make certain features of an activity apparent for visitors so that they can find their desired information, record it, debate it, and assess it. To create new tourist paradigms, several tourism organizations are attempting to combine new technology.

With the use of e-mail, chat, websites, video conferences, and other technologies, the Intelligent Tourist Guide application enhances and makes it easier for tourists to go to various locations.

#### **5.4 Testing Implementation**

To test the features and functionality of this system, a new test set has to be developed. Different functions and features have various characteristics. Adding or changing new functionality to an existing system is typically referred to as feature testing. I must create a test set in order to make the system more trustworthy, secure, helpful, effective, and efficient. Testing is required to determine if a system functions correctly or not.

#### **5.4.1 Features to be tested**

Features	Priority	Description
Login	L	User will must access if they
Login	L	have a successful login.
		When they logout their
Logout	L	session will destroyed
		instantly.
		For new user, they will be
Register	L	member when they will
		resister.
Post blog	L	User may post blog if he
1 ost olog	L	wants.
Inquiry	H	Tourist can enquire about
inquiry	11	place
View Applied tourist	M	admin can view applied
view Applied tourist	IVI	tourist.
Comment	M	User can comment on post.
Sand Massaca	M	Tourist can send message to
Send Message	IVI	admin.
Taymist yyill be ammayad	Н	Tourist will be approved by
Tourist will be approved	П	the admin
Han may dalated	M	Any user can be deleted any
User may deleted	M	time by the admin.

Here, L stands for the Lowest Priority in the chart and M for Medium Priority finally H stand for the Highest Priority.

#### **5.4.2 Testing Strategy**

Testing strategy is one of the main goals of the testing process. Testing technique comprises testing objects, testing function methods, and using all of the resources. The testing strategy serves as a gauge for the quality of the tests that should be run across the whole software development life cycle. These strategies are created by the quality assurance team and evaluated by the developers. Depending on the system type that needs testing, several testing methodologies should be used. User acceptability testing is carried out on this system.

#### 5.4.3 Test approach

Testers must choose a strategy to finish the testing process. There are primarily two test methodologies:

- i. **Automation Testing:** Testing software is made more efficient and effective with the use of an application to automate the whole software life cycle. Automation testing is a method where the tester tests the program using their own scripts and appropriate software. Essentially, it is the automation of a manual operation.
- ii. **Manual Testing:** In order to make sure the software is operating as needed, manual testing involves utilizing the features and operations of an application in the same way an end user would. A tester uses manual testing to manually run tests on the program while adhering to a predefined set of test cases.

#### 5.4.4 Black Box Testing

A type of software testing in which the tester is uninformed of the internal structure or design of the object being tested is known as black box testing. These tests might be functional or non-functional, with functional being the more prevalent. The approach is so named because the program appears to the tester as a black box with no windows.

#### 5.4.5 Equivalent Class Partition

Equivalence partitioning (EP) is a black-box or specification-based method. It may be used at any testing level and is frequently a useful starting technique. Only one condition from each partition has to be tested when using the equivalence-partitioning approach. This is due to the software's presumption that each condition inside a partition would be handled uniformly. There is no use in checking any of these other requirements if one condition in a partition is true, therefore assume that all conditions in that partition are true.

## 5.4.6 Boundary Value Analysis

The boundary value analysis is a black box design approach used in software testing that is based on test cases. The purpose of this method is to check for defects at the input domain's edge.

#### **5.4.7 White Box Testing**

In white box testing, the whole architecture is known to the testers, in contrast to black box testing, where the testers are unaware of any internal design or algorithms. Given that a white box tester often has some programming knowledge, this is not unusual. In contrast, since black box testers' experiences with the program should closely reflect those of end users, it may be advantageous for them to lack this technical perspective.

There are many degrees of white box testing. the like:

- i. Unit Testing
- ii. Integration Testing
- iii. System Testing

#### 5.4.8 Pass/ Fail Criteria

Typically, pass/fail criteria are established by test engineers. They determine which input data is valid and which is invalid while preparing the pass/fail criteria. The worked data are considered the pass criterion, while the remaining input data are regarded as the fail criteria. Below are the pass/fail criteria for this system:

- i. For a criterion to be deemed a pass criterion, it must always pass accurately.
- ii. The system crush criterion will be a fail criterion.
- iii. Not achieving predicted outcomes will be regarded as a failure.

Table 5.4.9 Testing Schedule

Test Phase	Time
Testing plan creation	1 week
Test specification	3 weeks
Unit Testing	During development time
Validating use case	2 weeks
User interface test	1 week
Load test	1 week
Release to production	1 week

## **5.4.10 Testing Environment**

To execute a test case as needed, a testing environment must be set up by test engineers with the necessary gear and software. Network setup is occasionally required to carry out a test plan. The list below includes some important testing environment areas.

- i. Test data
- ii. Operating system
- iii. Browser
- iv. Database server
- v. Network
- vi. Project documentation.
- vii. Hardware with server operating system.

#### 5.5 Test Results and Reports

A test case is a collection of circumstances or parameters in which a tester will assess whether the system being tested complies with specifications or operates as intended. [1] Finding issues with requirements or application design may also be accomplished through the process of creating test cases. There is a risk that the system will have certain flaws or gaps, and test cases will help to find those flaws. Additionally, we may resolve them by employing test cases. Thus, accurate testing is required to anticipate a minimum mistake. Additionally, 100% testing is not feasible.

So I have to choose properly the test case. Test case for this system is mentioned below.

Test case#1	Test case Name: Login
System: Travelfy- A web application for managing Tour	Subsystem: N/A
Guide	
Designed By: Atiqur Rahman	Designed date: 24/06/22
Executed By: Atiqur Rahman	Executed date:

Short Description: Registered user can log in to the application, so the system need authentication and authorization.

Pre-conditions:

<sup>\*</sup>Assume that the email is "atiqur25@gmail.com" and password is "123456"

Ste	Email	Passwor	Expected	Actual	Pass/Fai	Commen
p		d	result	result	1	t
1	atiqur25@gmail	123456	Invalid	As	pass	
				expected		
				,		
2		123456	Email	As	pass	
			blank	expected		
				,		

<sup>\*</sup>User must be registered.

<sup>\*</sup>Redirected to login page.

3	atiqur25@gmail.co		Password	As	pass	
	m		blank	expected		
				,		
4	atiqur25@gmail.co	123456	Successfu	As	pass	
	m		1	expected		
				,		

Post-condition: User will be redirected to dashboard with success message.

Test case#2	Test case Name: Register
System: Alumni Portal	Subsystem: N/A
Designed By: Sazzad Hossain Anik	Designed date:
Executed By: Sazzad Hossain Anik	Executed date:

Short Description: User can register with email and password.

## Pre-conditions:

- \*User needs to be on the register page.
- \*Valid email and password format.
- \* Assume that the email is "anik97@gmail.com" and password is "123456"

Step	Email	Password	Expected	Actual	Pass/Fail	Comment
			result	result		
1	anik97@gmail	123456	Invalid	As	pass	
				expected,		

2		123456	Email	As	pass	
			blank	expected,		
3	anik97@gmail.com		Password	As	pass	
			blank	expected,		
4	anik97@gmail.com	123456	Successful	As	pass	
				expected,		

Post-condition: The user will be registered and redirected to the dashboard with a success message.

# CHAPTER 6 IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

### **6.1 Impact on Society**

Ever since we were little, we've seen that when someone wanted to go somewhere, they had to take advice from different people. There were also various tour agencies who had to go to the office to gather different information. But our science and technology has improved so much that gadgets like smartphones are now available at very affordable prices. So almost everyone now has a smart phone. That's where our tour website comes in handy. The website can be accessed from any human at any device so they do not need to go anywhere directly to search. Which has made social life easier for people. Our society lags far behind the people of the Western in the use of technology. The internet can be a way to reduce this problem. Since we need internet to login to our website and see updates of various things, everyone has to use internet from time to time. As a result, they have to buy data package, device configuration etc. In other words, by doing this ordinary people can easily solve the basic problems that they sometimes face

#### **6.2 Impact on Environment**

Our website is completely eco-friendly. Although it may have a small effect on the environment. For example, we can say that we need a smart device like mobile, laptop to use our website and a smart device can cause environmental pollution if the e-garbage from the smart device is not used properly. So, if someone brings a smart device to use our website and does not recycle it, it can affect the environment. Moreover, we are also helping the environment through our website in various ways. When there was no online platform for tours and various package bookings, everyone had to go by vehicles to an agent. And the carbon dioxide that comes out of the vehicles pollutes the environment. So, one day our website will help to save from the excess carbon dioxide and will make this world beautiful.

#### **6.3 Ethical Aspects**

There is nothing to worry about if we consider the moral aspect. Because we are using it only for the entertainment purpose of everyone. So, there will be no unethical action regarding our application. Also, the website is open source so that there is less chance of doing unethical or hurtful that could hurt anyone in any way.

#### 6.4 Sustainability Plan

Information technology is being updated regularly and bringing new features and security measures. The technology we used in our project gets a big update after a few days. We built our website using the latest technology discovered at this time. Again, if there is a major update that could conflict with our existing code, then we need to update our website and make changes. This, website will be open source and other web technology enthusiasts will be able to work with us.

#### **CHAPTER 7**

#### **CONCLUSION AND FUTURE SCOPE**

#### 7.1 Discussion and Conclusion

To develop this project in accordance with the demands of the stakeholders, a lot of effort, patience, and persistence were required. Beginning with a rough concept drawing and an analysis of the requirements, we discovered that our task was easier than we had initially thought. It features database materials and is a web-based application. Therefore, after database design is complete, database creating with suitable relation appears to be simpler. From the viewpoint of the stakeholders, we created a user interface that is quite straightforward and simple to comprehend. We then began the system's backend logic after finishing this. After the development process is complete, we must test the system to ensure its reliability and look for problems. Additionally, it assisted us in ensuring the project's quality. Even though we conducted the test, it was done ethically. The project I'm working on has some constraints. We'll now give a quick overview of them. (a) This program is only available online; there are no Android or iOS versions. No particular Android or iOS program version that may be easily accessed using a mobile app. (b) No reporting option: There isn't a way to flag irrelevant profiles, posts, or comments. (c) No control message option: There isn't any message control in place in this system right now. User cannot therefore regulate their message. There must be obstacles to overcome in order to develop a system. While challenges don't make me weak, they do provide me the chance to improve and demonstrate my abilities. To overcome those challenges and do something new will put me on the road to success. When we first started working on this project, we had no idea how the software development life cycle should work or how to acquire requirements from the actual world. We discovered the need of a development pre-plan while working on this project.

#### 7.2 Scope for the further development

Although this is not the final version of the system, we have plans to enhance it and add features that will benefit all parties involved and help the system grow. We don't now employ any computationally clever methods in this version of our work. We want to use big data analysis to integrate IoT devices with real-time services in our next development.

#### REFERENCES

- [1] "Testing", available at: <<a href="http://softwaretestingfundamentals.com">>>, [online] (Las accessed on 25th July, 2022)</a>
- [2] "Diagram", available at: << Microsoft Visio (for diagram) >>, [online] (Last accessed on 22nd July, 2022)
- [3] "Java-script", available at: <<a href="https://www.javatpoint.com/">>>, [online] (Last accessed on 14th July, 2022)</a>
- [4] "Bootstrap", available at: <<a href="https://getbootstrap.com">>>, [online] (Last accessed on 10 July, 2022)</a>
- [5] "UML/Use Case", available at: <<a href="https://www.lucidchart.com">>, [online] (Last accessed on 7th July, 2022)</a>
- [6] "Django Framework", available at: <<a href="https://docs.djangoproject.com/">>>, [online] (Last accessed on 15th July, 2022)

## **APPENDICES**

## **Appendix A: Project Reflection**

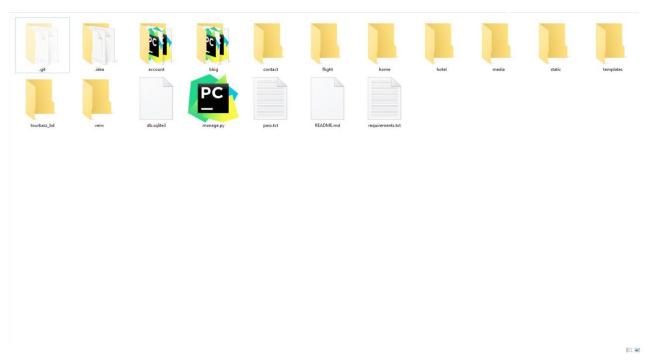


Figure R.1: Project Development Step by Step

# Final Defense

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