TRAVEL MANAGEMENT SYSTEM

PROJECT REPORT

ECS200
Software Engineering & Project
GROUP E

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ABSTRACT

This document contains the final report of developing a software in the module “Software Engineering and projects”. So our project was to develop a travel management software. Simply, a software which could control all the all the functions in the travel section simply and easily.

We took around five weeks to complete the whole project. We have divided the total workload into parts so then we can focus on each part much better. There were many subparts inside the main topic such as organizing trips, booking hotels, updating the database, adding the travellers and the details about the travelling places to the database.

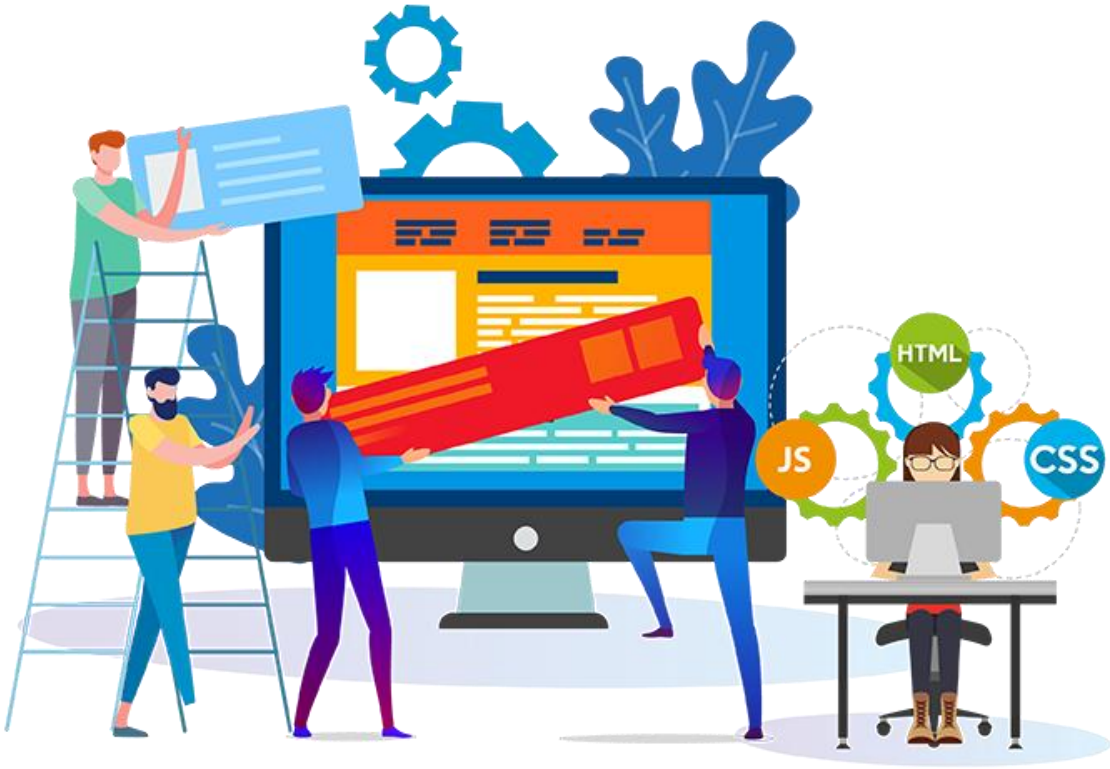
Anyway, arranging and organizing the tasks was a bit challenging since we were unable to meet each other. So therefore, we had to do our allocated tasks individually after taking meetings to discuss the progress of the project weekly.

Since we were asked to use an object oriented programming language to develop the software, we chose the “JAVA” language after a long discussion. We used NetBeans software as our IDE to develop the software. In addition to that, we used MySQL to design and develop the database of the software. Since this is a software, we did not want to spent a rupee for the budget. It is only about the time, knowledge and implementation. As an additional feature we used GITHUB to show our personal contribution for the project as the group members.

ABBREVIATIONS

IDE – Integrated Development Environment

UML – Unified Modeling Language



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Introduction

This report covers a detailed description on how did we finished this project by archiving the main goals of the project. The main idea of this project is to design a software which could be able to implement the operations of a travel management system. But apart from main operations, we have added some new features such as showing trending travelling places, updating the COVID19 news and analyzing the safe travelling places, providing the vehicle details, giving the routes and many more. Since the world is developing rapidly with the technology, this is a very practical project because even the whole world is looking forward to travel. After the update, there will be many operations will happen inside the travel section and it is hard to write down all the things and also hard to handle.

Let's dive deep in the project to see how the project was implemented and overcome the different situations.

The Practical problem

Modern days, technology is involved in each and every part of the world. So, people are seeking for the development in those areas. Specially people are looking how to ease the daily works by giving the chance for technology to evolve. Human made many machines to ease the daily works. As a result of it, the use of human power for the daily works has been rapidly decreased in last few decades. But many people only see the machines. They do not see the programs behind the machine. Programs or "Soft wares" have become so much familiar to modern people as it is too hard to find a human who did not interact with soft wares.

This software is mainly focused on travellers. The main purpose of making this software is to manage travellers by helping them to identify the most suitable places according to their preferences, giving the information about facilities like hotels and restaurants, easy routes for their visiting places, providing details about vehicles for their journeys according to their budget and etc.

According to the old method, these all features can't be found in one place. But our target is to make a software which will provide all this information in one place. Normally people use to find websites and travel magazines and etc to prepare for their journeys. But through this software, we try to help travellers to get all the necessities for their journeys easily in one place.

Aim and objectives

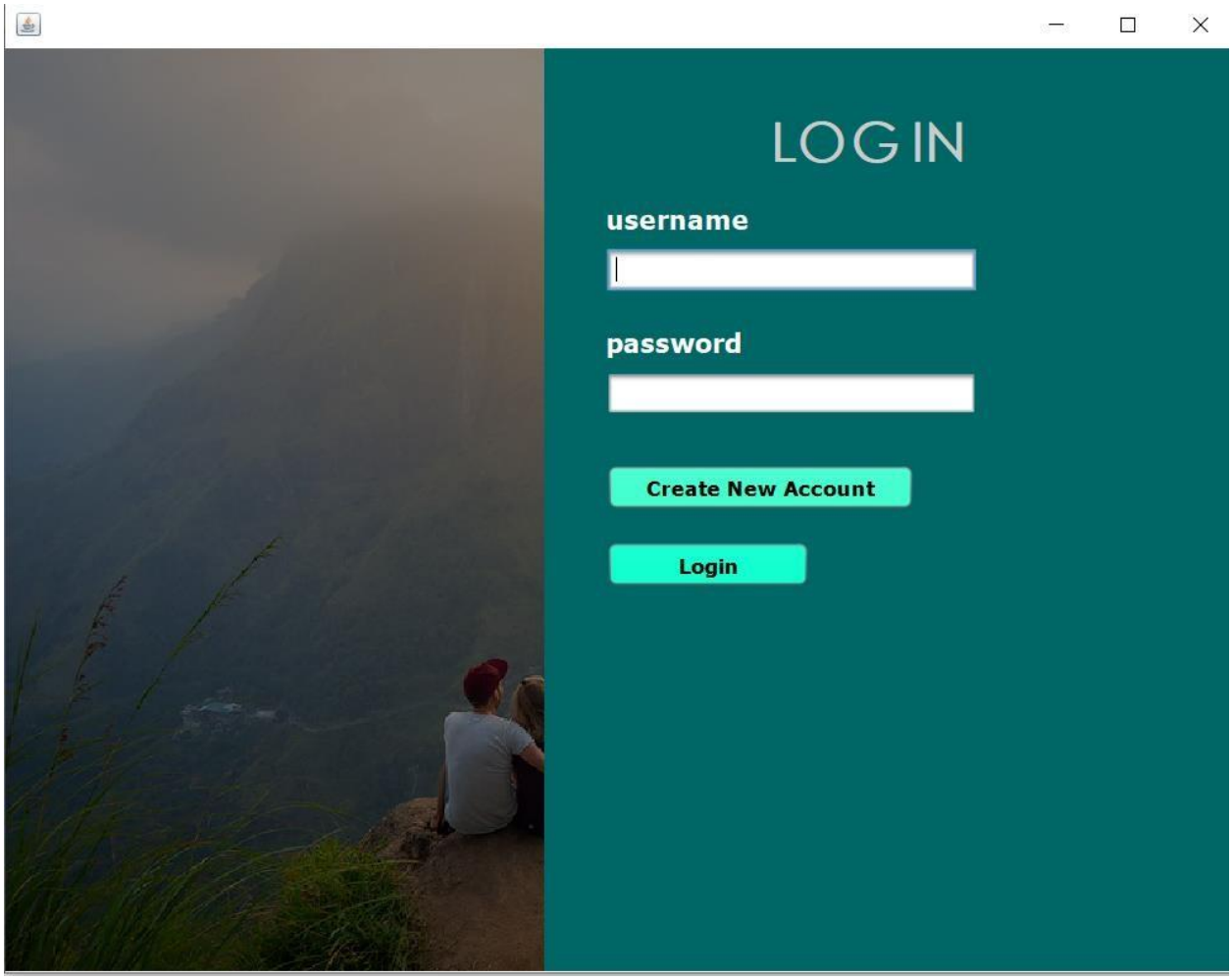
Our aim is to develop travelling software to make travellers' life very easier. This software will find you the best suitable place to travel according to your preferences and the weather and climate of the day and the month of the year which will you plan to travel. Also, travellers can find all the information about travelling places. Because of this pandemic situation, it is a must that travellers should be responsible for their and all others safety. So as a result of that we are committed to providing them with safe places to travel by analysing the COVID 19 positivity details. Also as extra advantage travellers can input the places where they travelled and according to it we will provide the trending travelling places on the period.

- Create an account on this software and signup (here they have to give their personal information, contact details, their preference for travel and etc).
- If they are already decided on a place to travel then they can get all the information about the place and the facility details which we provide.
- If they don't decide a place yet we'll provide the most suitable and safe place to travel according to their preferences and any the data analysis of COVID 19.
- If they already have the budget and no idea about travelling and how to arrange their budget in a useful way, our travel guides and travel planners will arrange all your requirements in a better way.
- Gather sufficient requirements to build the design.
- Implement all the relevant functionalities to the system.
- Design simple and clear user interfaces that can easily be managed by anyone.
- Implement security controls by access control.

Typical Use Case

This system is used by the travellers. Therefore, the software includes all the function which a travelling software needed including create a new account on software, use their FACEBOOK and INSTAGRAM accounts on the software. But instead of that, there are some other functions which are useful for the travellers as well.

Main window includes the Main functions of the software which what function the users want to use(like a dashboard). By clicking the relevant function, system will be direct the user to the function.

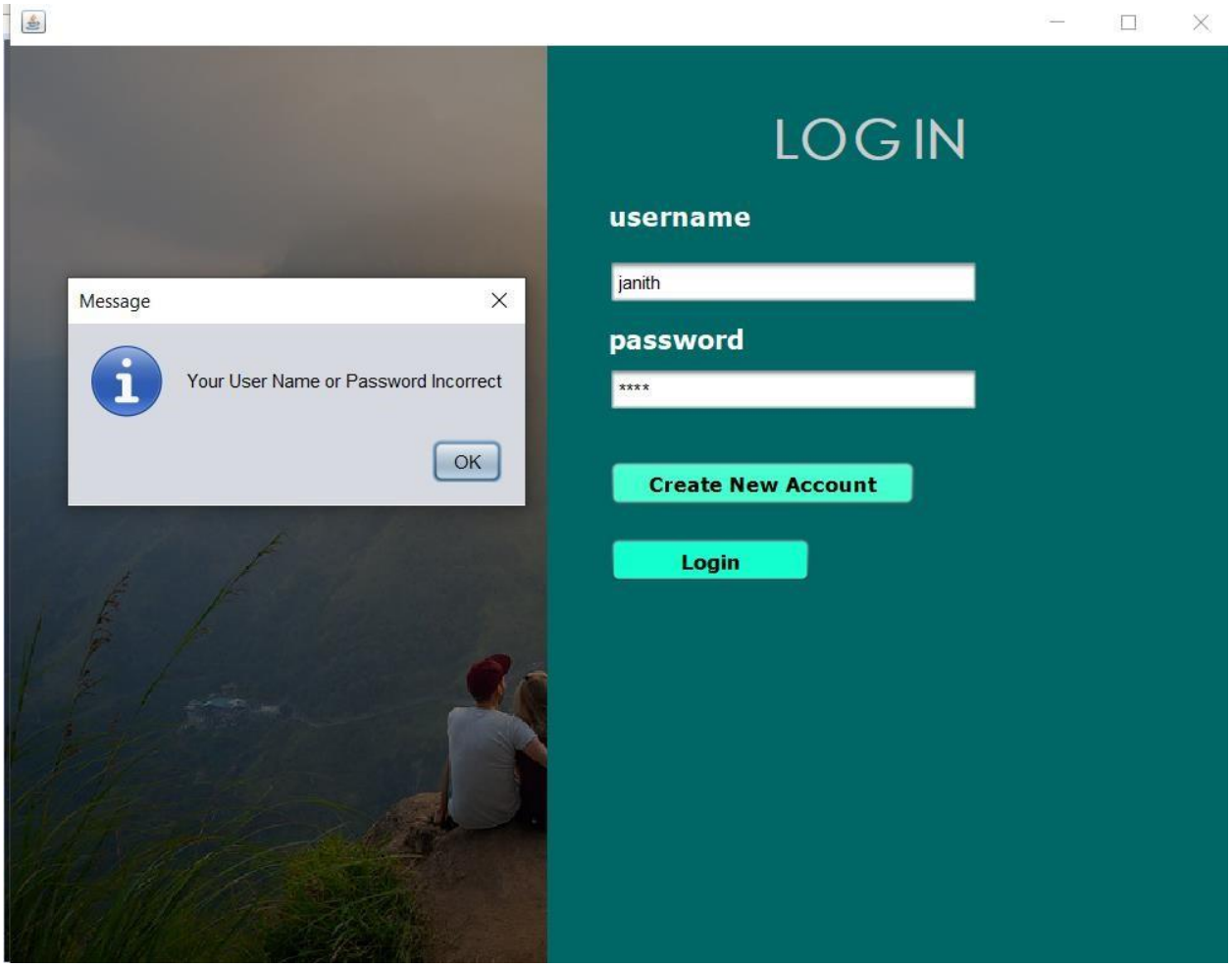


- Main window

Below is the list of all the options that user could use.

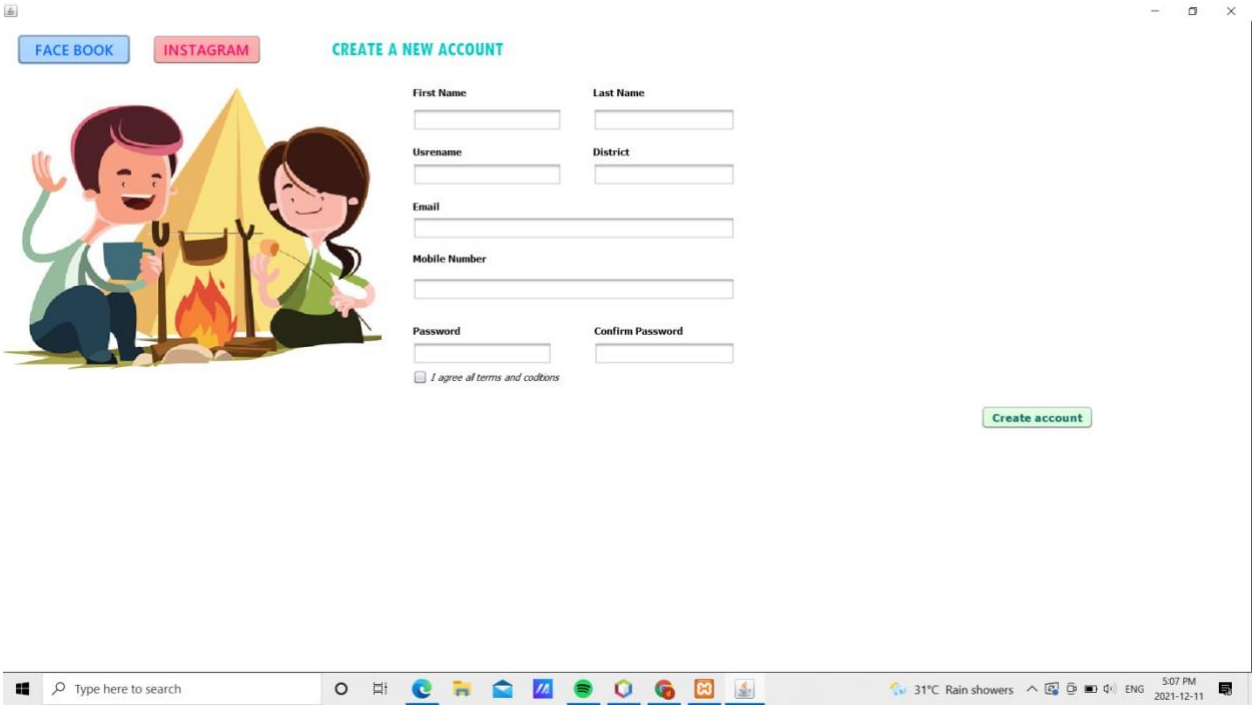
- Unsuccessful Login
- Create an Account & Successful Login
- Dashboard
- About Us
- Create a trip
- Traveling places
- Hotels
- Vehicles
- Covid-19 updates

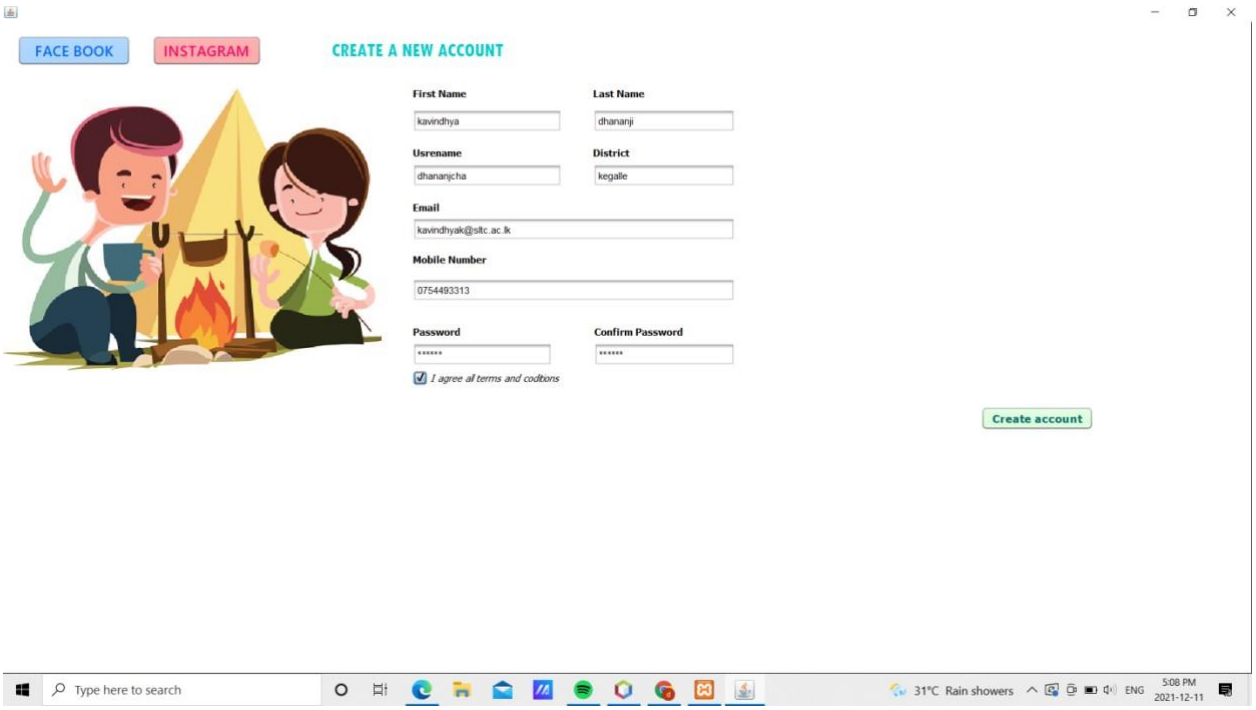
✞ Unsuccessful Login

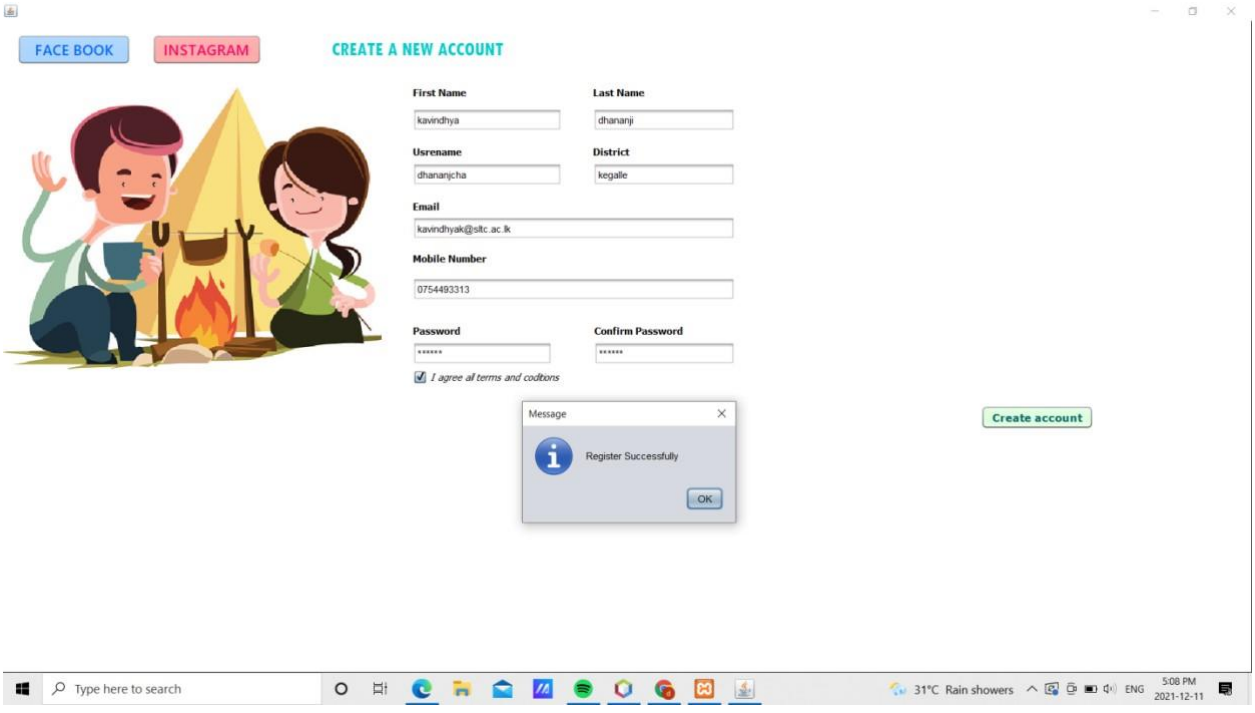


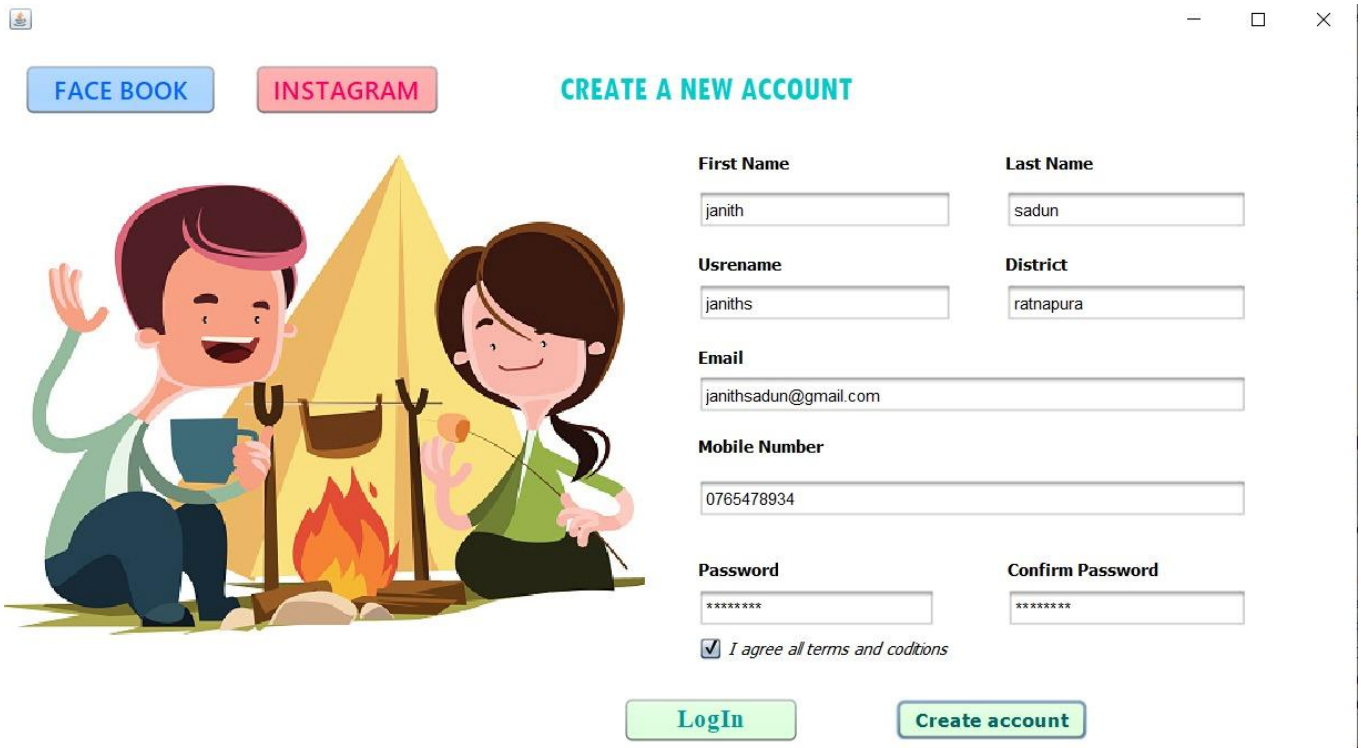
If you enter your username or password incorrectly you can't log into the software & you receive a message as above mentioned window.

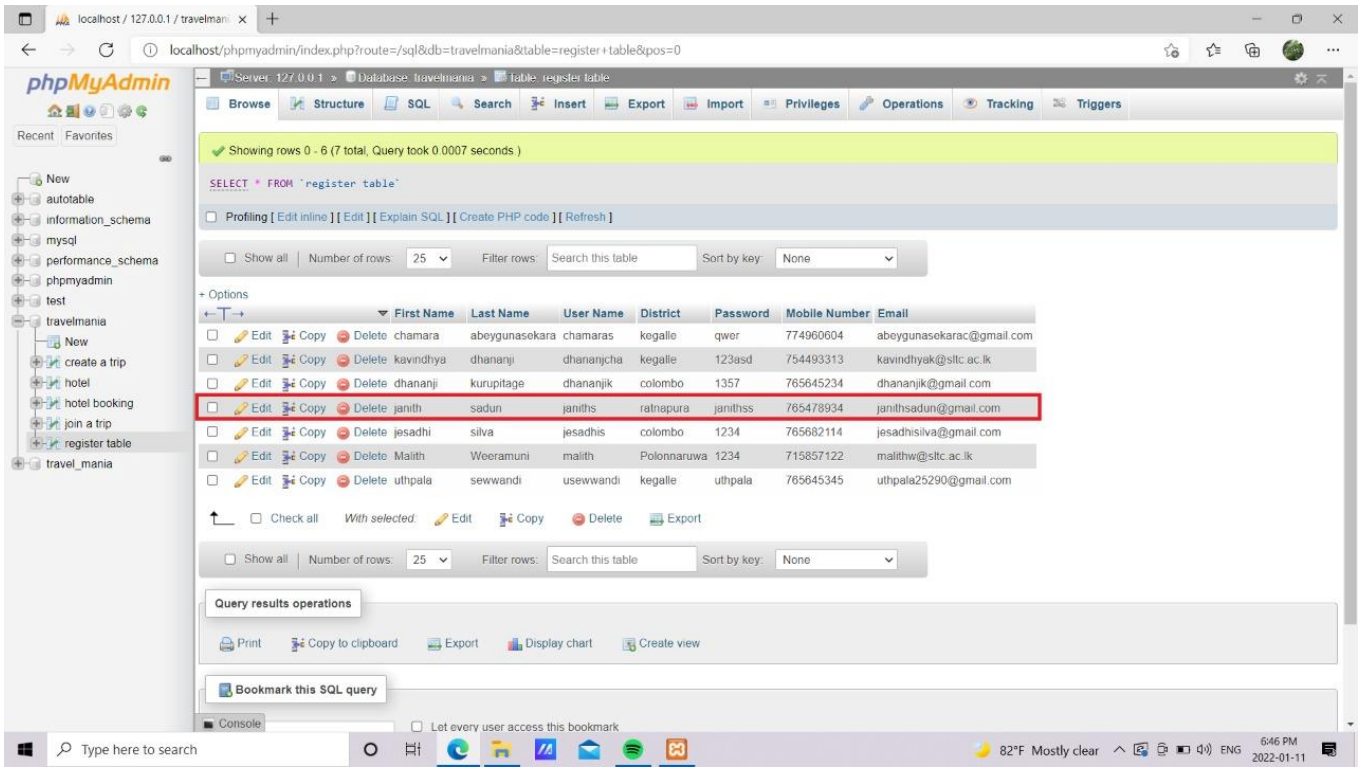
- **Create an Account & Successful Login**




FACE BOOK
INSTAGRAM
CREATE A NEW ACCOUNT
First Name
kavindhya
Last Name
dhananji
Usrename
dhananjcha
District
kegalle
Email
kavindhyak@sltc.ac.lk
Mobile Number
0754493313
Password
Confirm Password
I agree all terms and codtions
Create account
Type here to search
31°C Rain showers
ENG
5:08 PM
2021-12-11

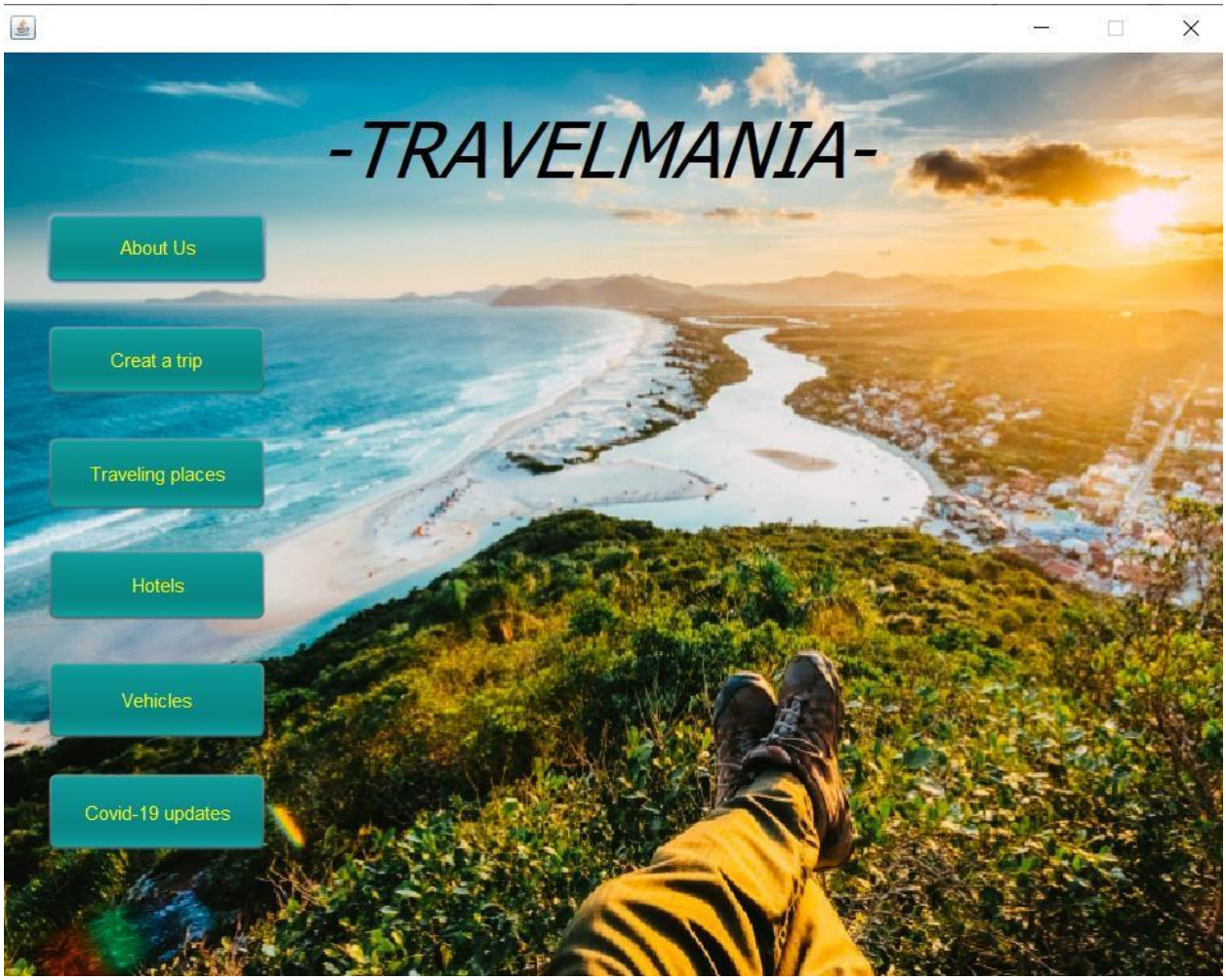

FACE BOOK
INSTAGRAM
CREATE A NEW ACCOUNT
First Name
kavindhya
Last Name
dhananji
Usrename
dhananjcha
District
kegalle
Email
kavindhyak@sltc.ac.lk
Mobile Number
0754493313
Password
Confirm Password
I agree all terms and codtions
Message
Register Successfully
OK
Create account
Type here to search
31°C Rain showers
ENG
5:08 PM
2021-12-11


FACE BOOK
INSTAGRAM
CREATE A NEW ACCOUNT
First Name
Last Name
janith
sadun
Usrename
District
janiths
ratnapura
Email
janithsadun@gmail.com
Mobile Number
0765478934
Password
Confirm Password
I agree all terms and coditions
LogIn
Create account


phpMyAdmin
localhost/phpmyadmin/index.php?route=/sql&db=travelmania&table=register+table&pos=0
Showing rows 0 - 6 (7 total, Query took 0.0007 seconds.)
SELECT * FROM `register table`
First Name
Last Name
User Name
District
Password
Mobile Number
Email
janith
sadun
janiths
ratnapura
janithss
765478934
janithsadun@gmail.com

If you fill out all the areas clearly & set the password clearly and after you confirmed it you will receive a message like this and you will direct to the dashboard of the software. Then your registration is recorded in our database as above mentioned.

Dashboard



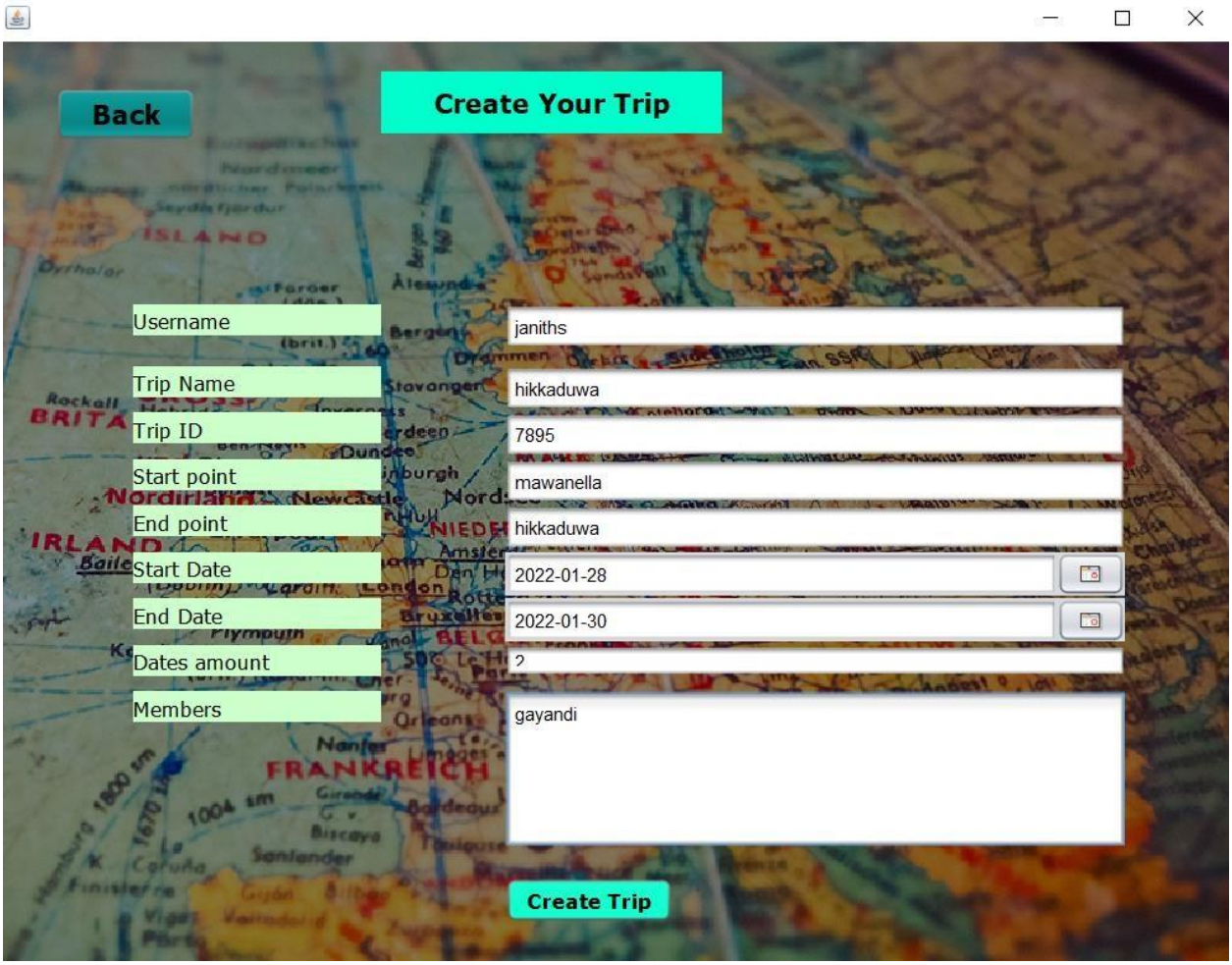
• Dashboard

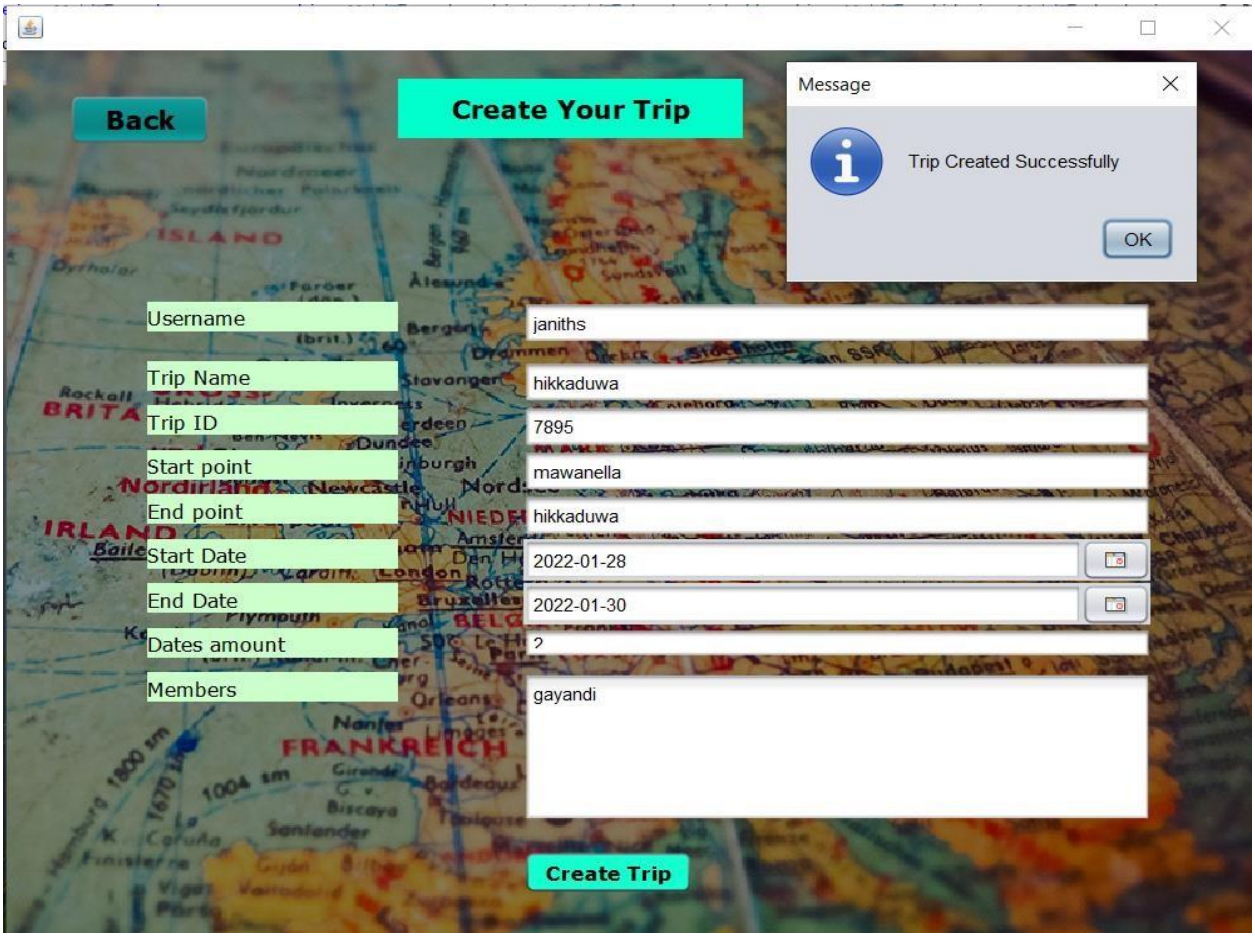
Here is the dashboard of our Travelmania software and above image shows all the features of our software for travellers including About Us, Create a trip, Traveling places, Hotels, Vehicles & Covid-19 updates.

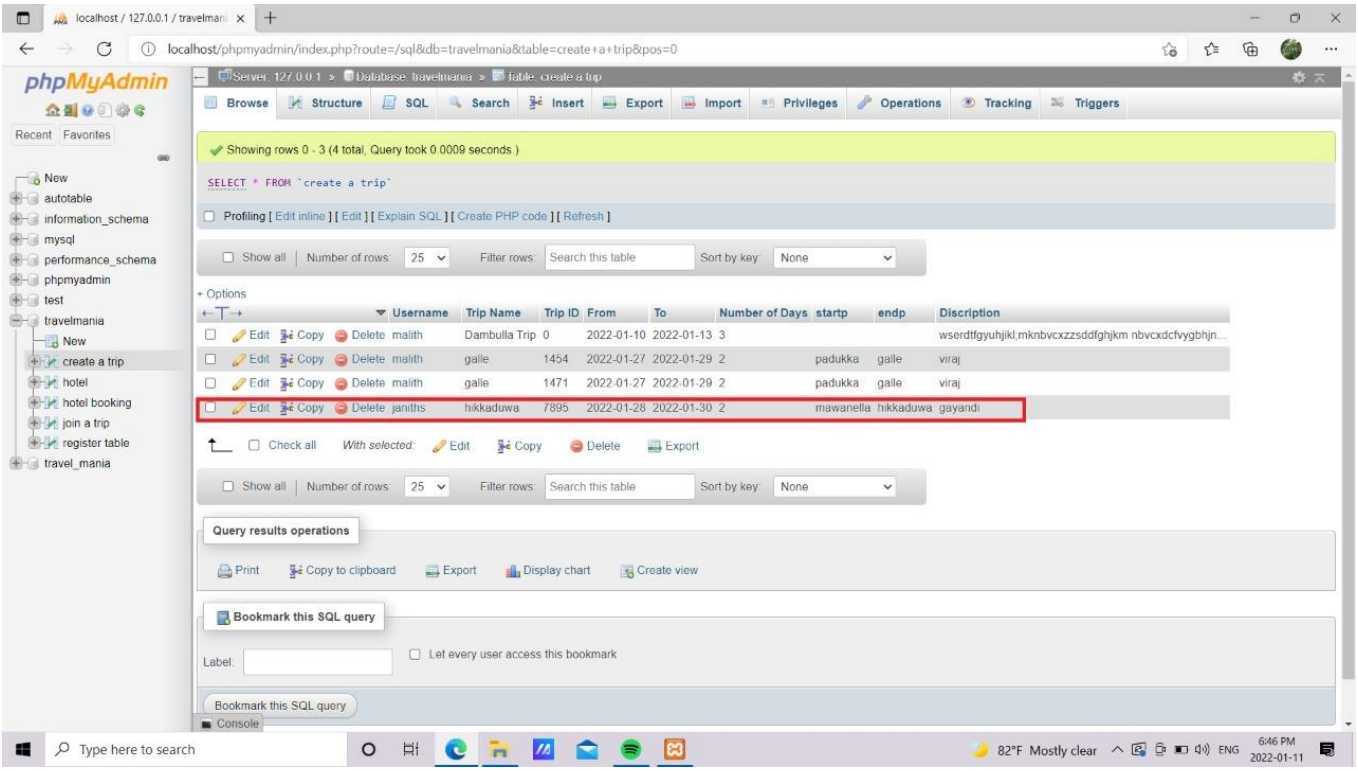
✞ About Us

Here on About Us, you can find out all the details of our Travelmania Software Development Group. By clicking on Back button you will direct to the Dashboard again.

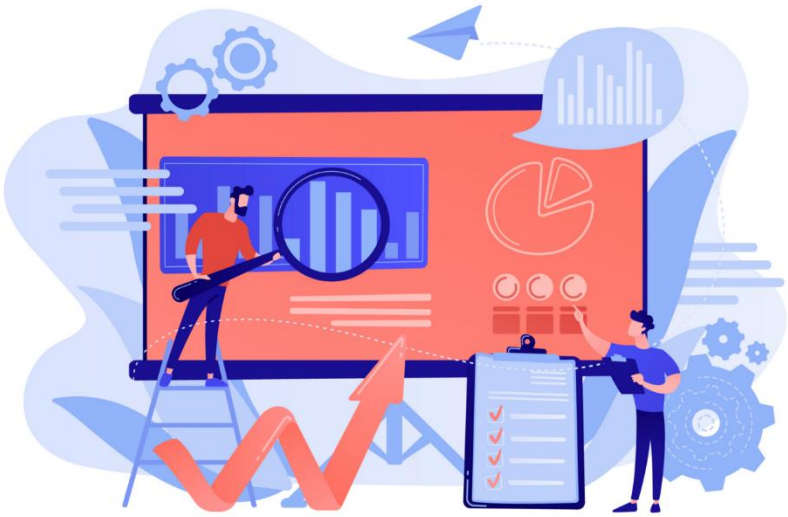
✞ Create a trip



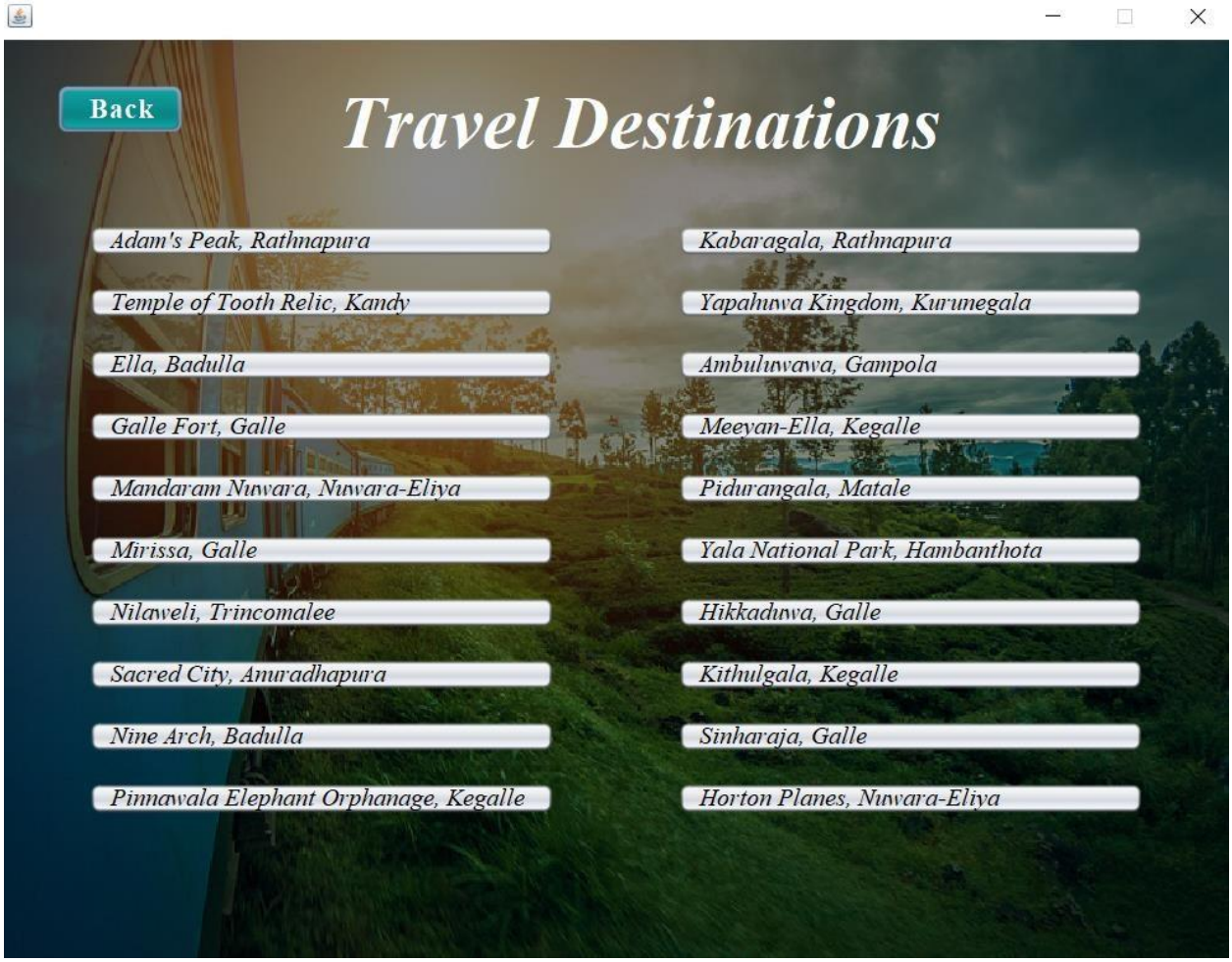

Back
Create Your Trip
Message
Trip Created Successfully
OK
Username
janiths
Trip Name
hikkaduwa
Trip ID
7895
Start point
mawanella
End point
hikkaduwa
Start Date
2022-01-28
End Date
2022-01-30
Dates amount
2
Members
gayandi
Create Trip


phpMyAdmin
localhost/phpmyadmin/index.php?route=/sql&db=travelmania&table=create+a+trip&pos=0
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Tracking
Triggers
Showing rows 0 - 3 (4 total, Query took 0.0009 seconds.)
SELECT * FROM `create a trip`
Username
Trip Name
Trip ID
From
To
Number of Days
startp
endp
Discription
janiths
hikkaduwa
7895
2022-01-28
2022-01-30
mawanella
gayandi
Query results operations
Bookmark this SQL query

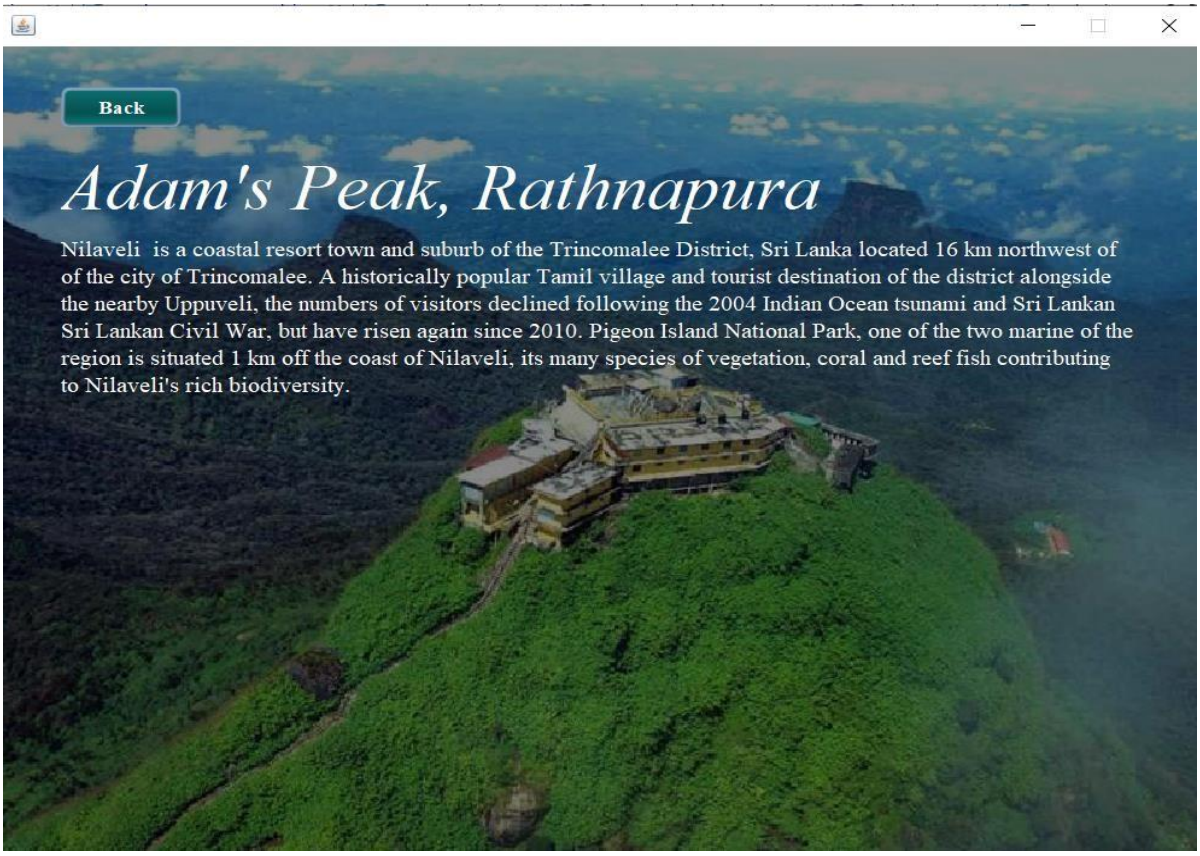
You can fill out all the areas clearly and Create a Trip as mentioned in the above window and after you create a trip successfully you will receive a message like this. After you create your trip it also recorded in our database as above mentioned.

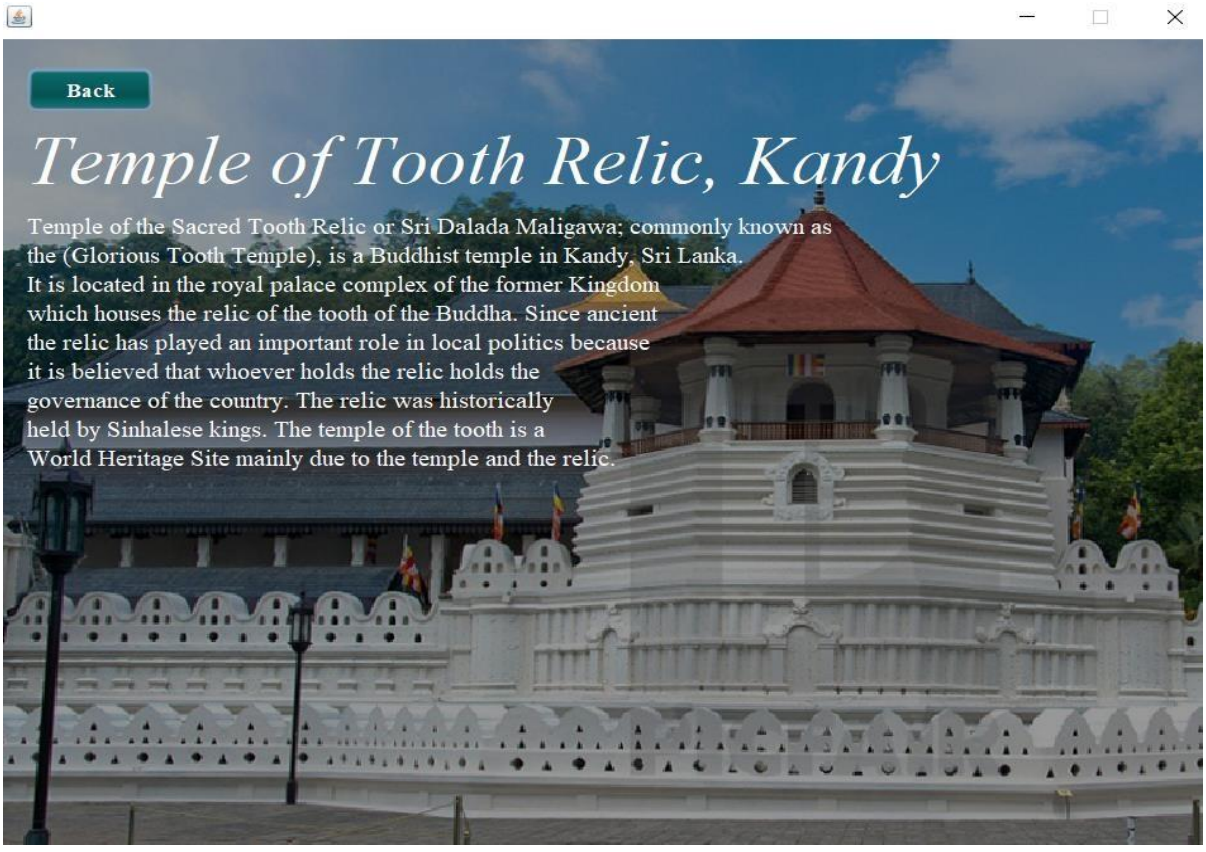


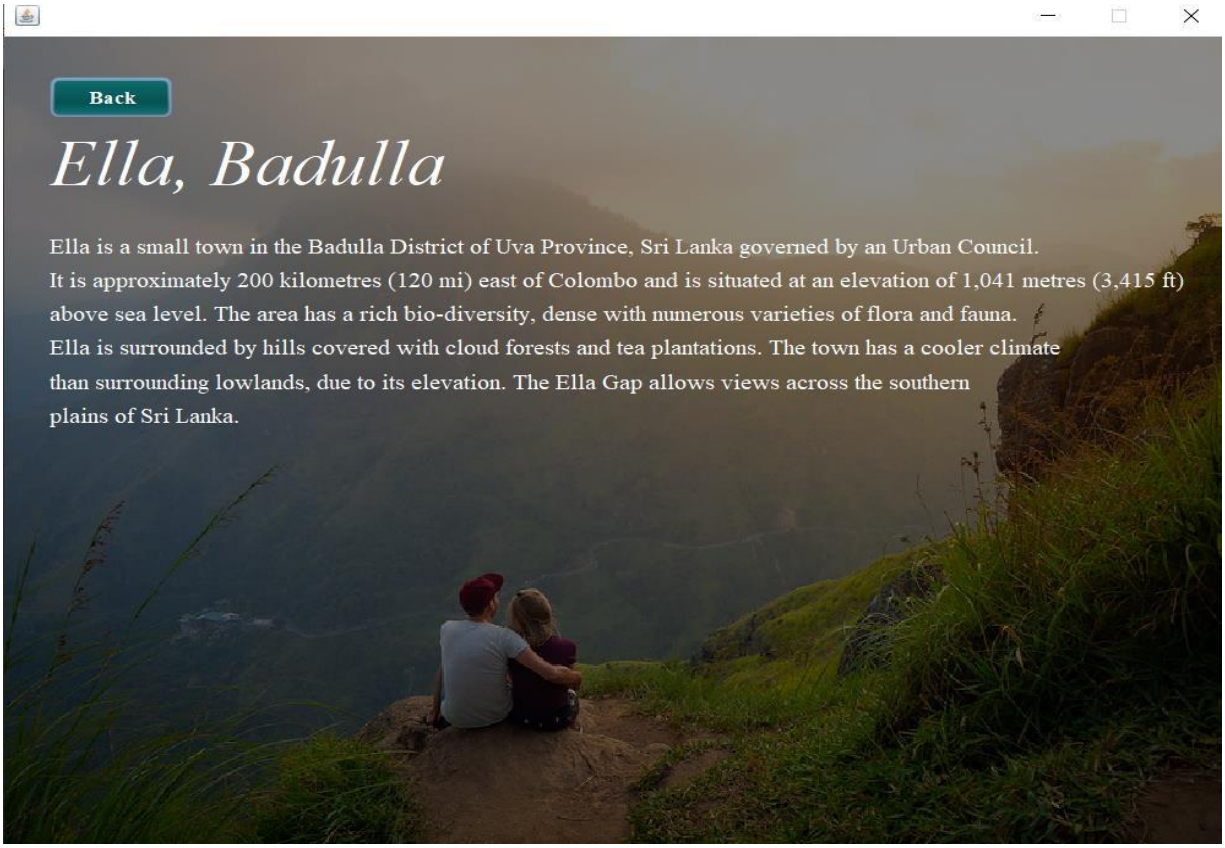
✞ Traveling places

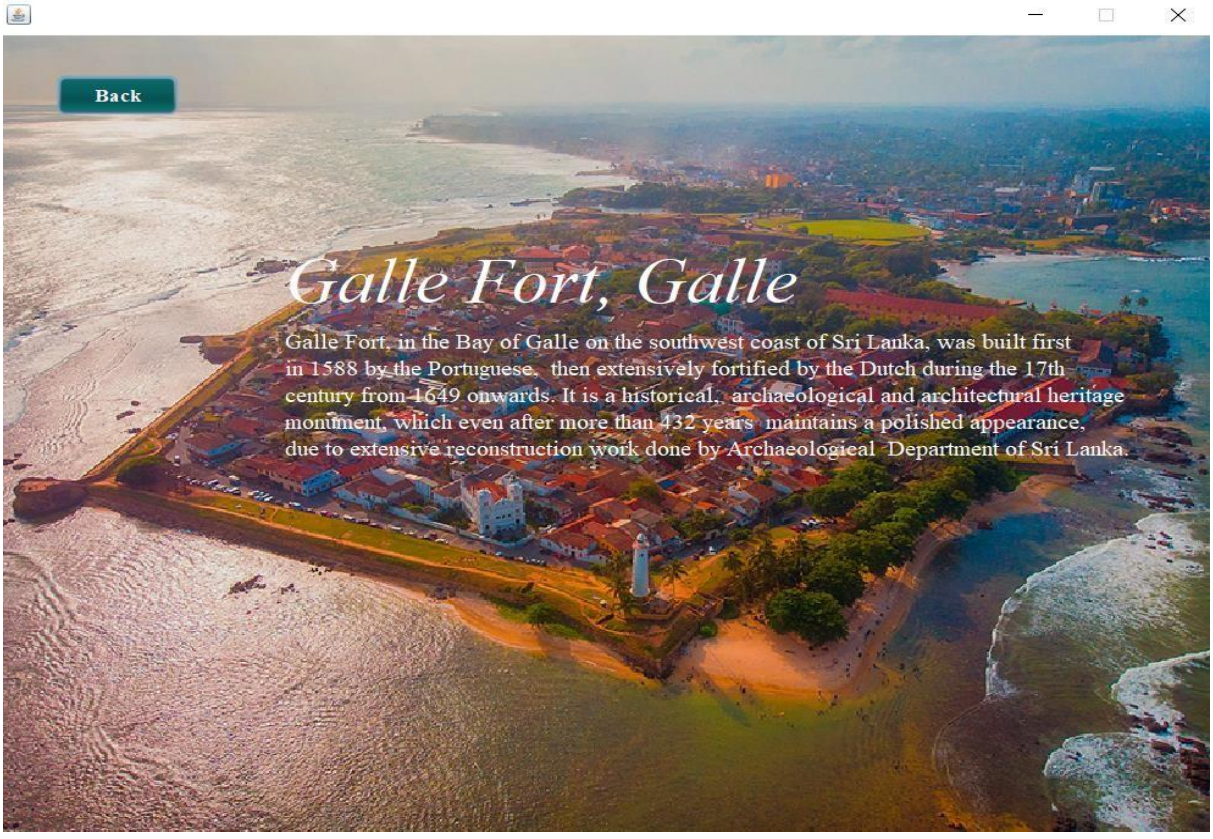


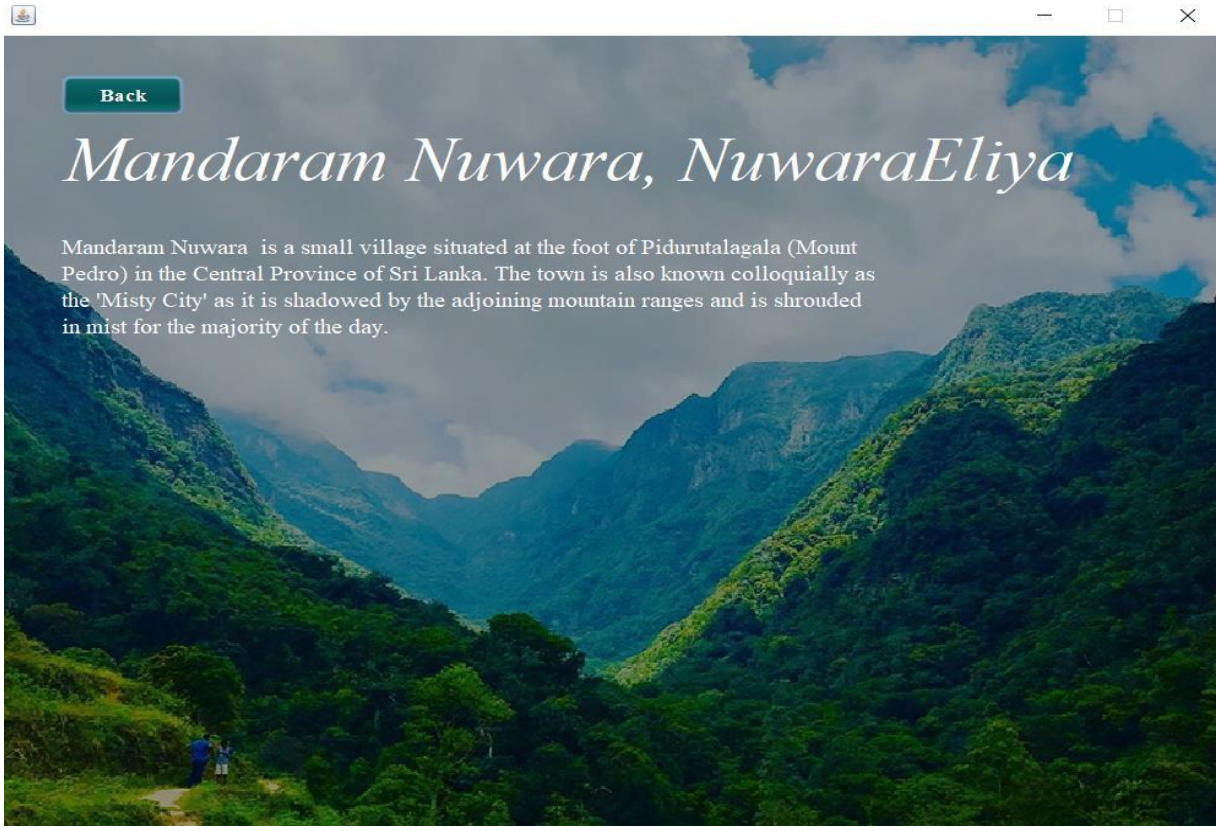
In here on the Travelling places you can find out several Travel Destinations and after clicking on them you can see each Travel Destination with a description as the following windows.

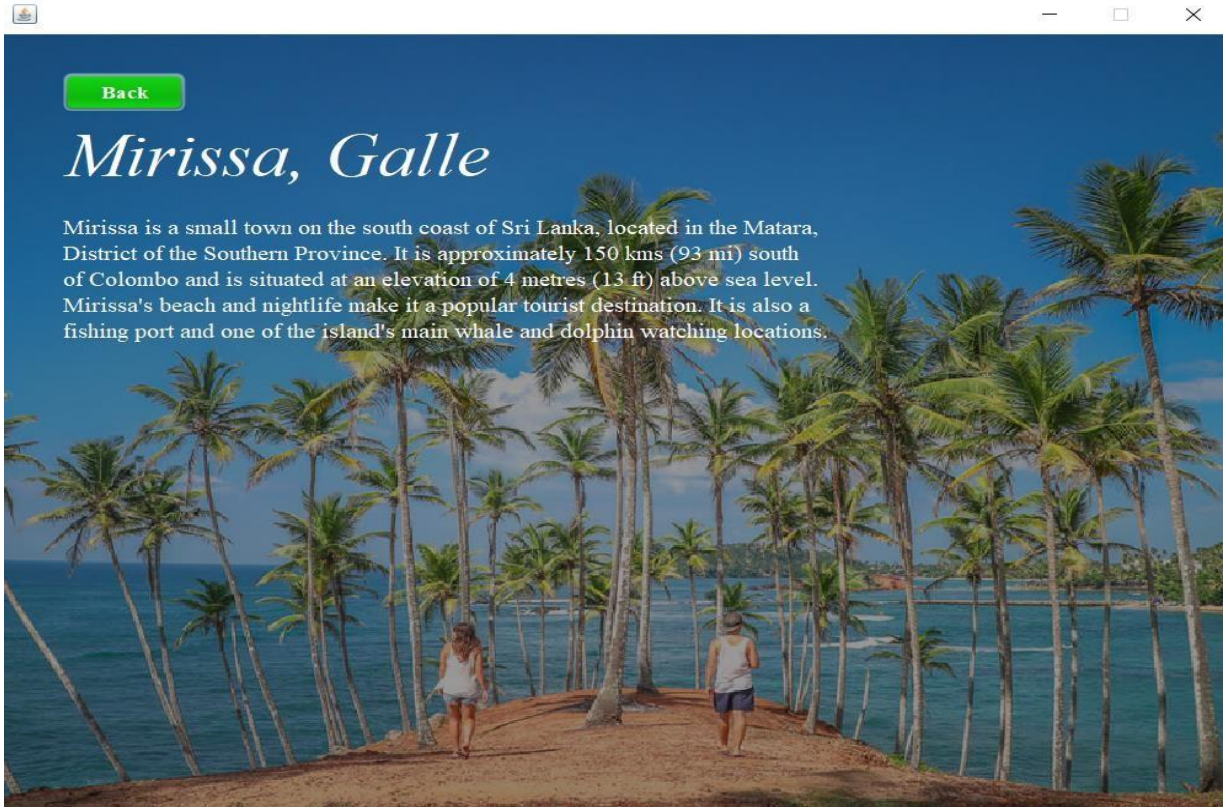

Back
Adam's Peak, Rathnapura
Nilaveli is a coastal resort town and suburb of the Trincomalee District, Sri Lanka located 16 km northwest of of the city of Trincomalee. A historically popular Tamil village and tourist destination of the district alongside the nearby Uppuveli, the numbers of visitors declined following the 2004 Indian Ocean tsunami and Sri Lankan Sri Lankan Civil War, but have risen again since 2010. Pigeon Island National Park, one of the two marine of the region is situated 1 km off the coast of Nilaveli, its many species of vegetation, coral and reef fish contributing to Nilaveli's rich biodiversity.


Back
Temple of Tooth Relic, Kandy
Temple of the Sacred Tooth Relic or Sri Dalada Maligawa; commonly known as the (Glorious Tooth Temple), is a Buddhist temple in Kandy, Sri Lanka.
It is located in the royal palace complex of the former Kingdom which houses the relic of the tooth of the Buddha. Since ancient the relic has played an important role in local politics because it is believed that whoever holds the relic holds the governance of the country. The relic was historically held by Sinhalese kings. The temple of the tooth is a World Heritage Site mainly due to the temple and the relic.


Back
Ella, Badulla
Ella is a small town in the Badulla District of Uva Province, Sri Lanka governed by an Urban Council.
It is approximately 200 kilometres (120 mi) east of Colombo and is situated at an elevation of 1,041 metres (3,415 ft) above sea level. The area has a rich bio-diversity, dense with numerous varieties of flora and fauna.
Ella is surrounded by hills covered with cloud forests and tea plantations. The town has a cooler climate than surrounding lowlands, due to its elevation. The Ella Gap allows views across the southern plains of Sri Lanka.


Back
Galle Fort, Galle
Galle Fort, in the Bay of Galle on the southwest coast of Sri Lanka, was built first in 1588 by the Portuguese, then extensively fortified by the Dutch during the 17th century from 1649 onwards. It is a historical, archaeological and architectural heritage monument, which even after more than 432 years maintains a polished appearance, due to extensive reconstruction work done by Archaeological Department of Sri Lanka.


Back
Mandaram Nuwara, NuwaraEliya
Mandaram Nuwara is a small village situated at the foot of Pidurutalagala (Mount Pedro) in the Central Province of Sri Lanka. The town is also known colloquially as the 'Misty City' as it is shadowed by the adjoining mountain ranges and is shrouded in mist for the majority of the day.


Back
Mirissa, Galle
Mirissa is a small town on the south coast of Sri Lanka, located in the Matara, District of the Southern Province. It is approximately 150 kms (93 mi) south of Colombo and is situated at an elevation of 4 metres (13 ft) above sea level. Mirissa's beach and nightlife make it a popular tourist destination. It is also a fishing port and one of the island's main whale and dolphin watching locations.

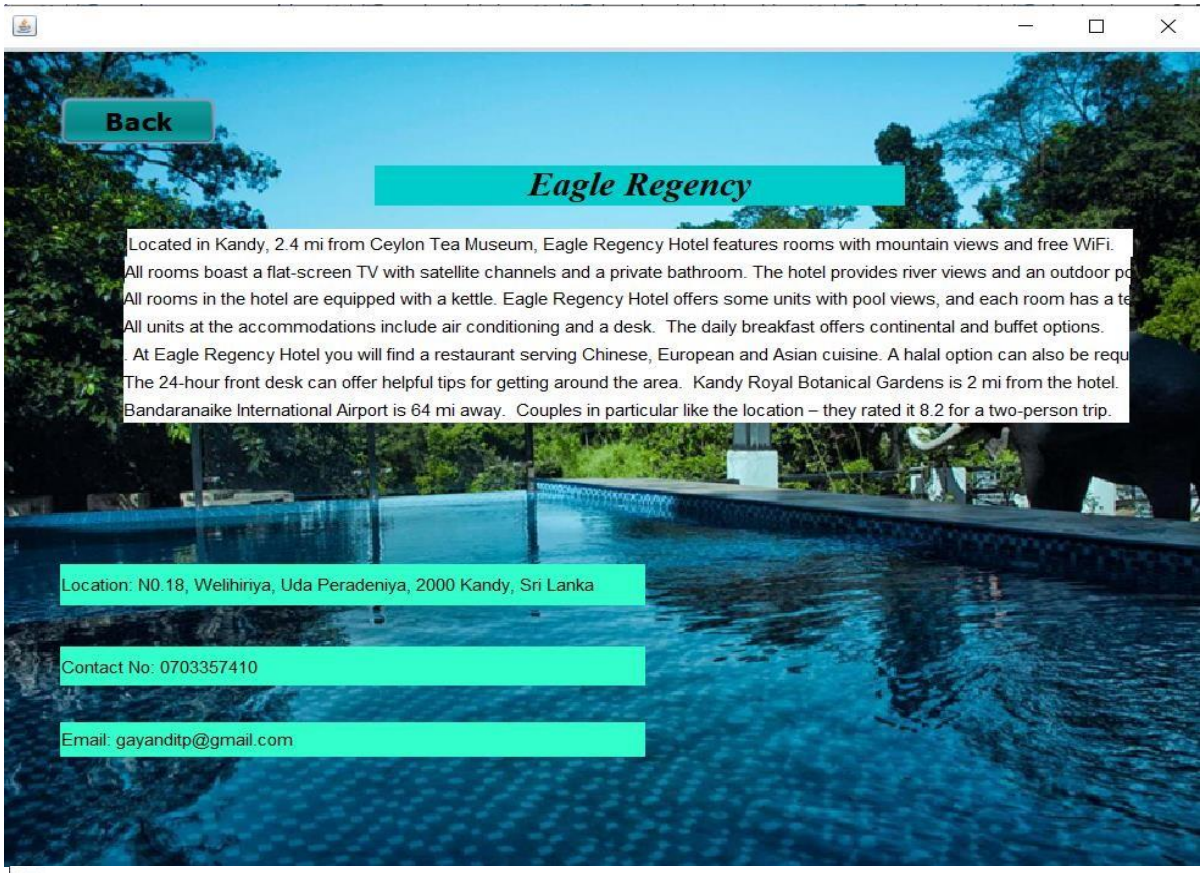
By clicking on the Back button you will direct to the Travel Destination window again.

- **Hotels**

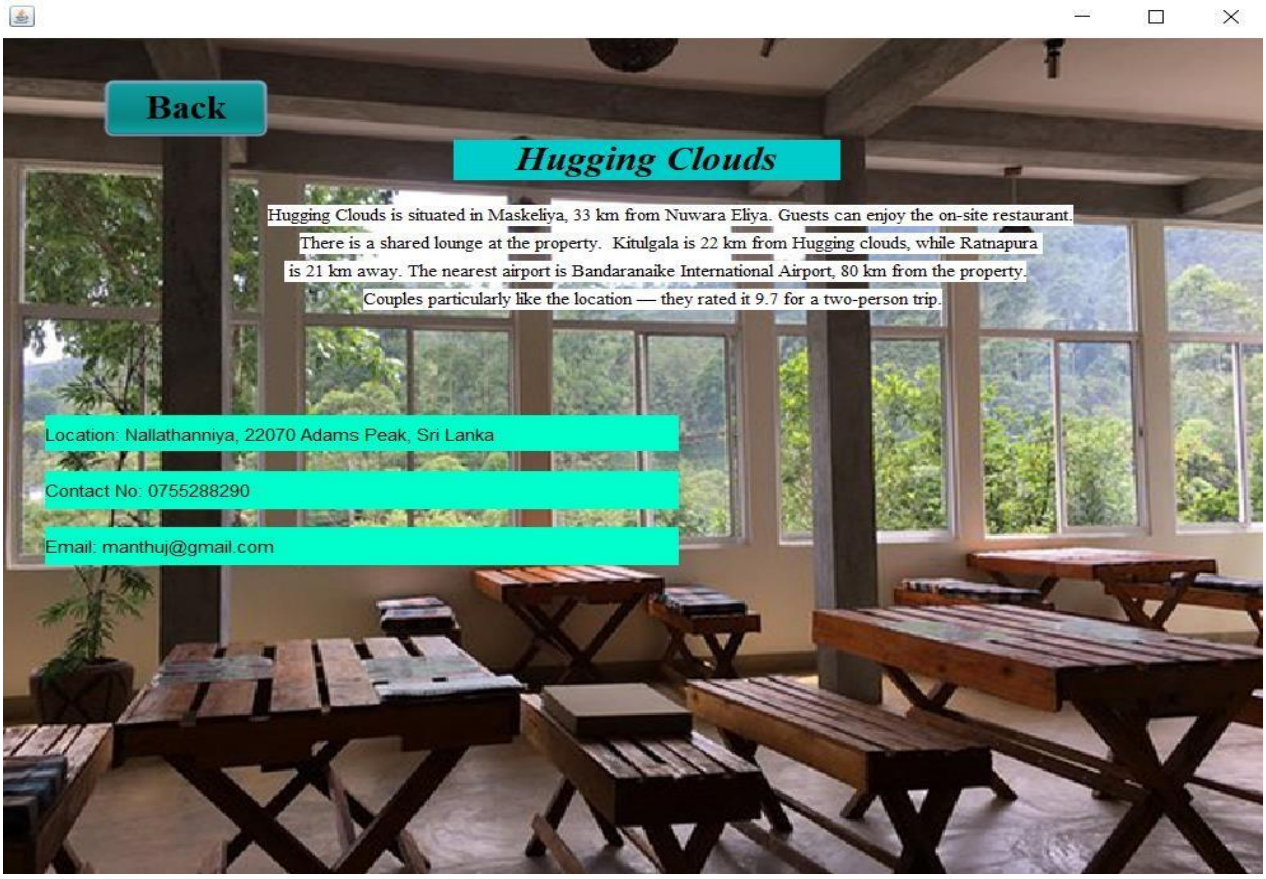
In here on the Hotels you can find out several Hotels in various locations and after clicking on them you can see each Hotel with their Location & Contact Details as the following windows.

Back
Ella Master Point Luxury Cottage
With garden views, Ella Master Point Luxury Cottage is located in Ella and has a restaurant and room service.
Both WiFi and private parking are accessible at the chalet free of charge.
Offering a balcony, each unit is air-conditioned and has a dining area and a seating area with a satellite flat-screen TV.
There's a private bathroom with shower and a hairdryer in each unit, along with free toiletries.
Guests at Ella Master Point Luxury Cottage can enjoy a Full English/Irish or an Asian breakfast. The accommodation has a terrace.
A car rental service is available at Ella Master Point Luxury Cottage, while hiking and cycling can be enjoyed nearby.
Demodara Nine Arch Bridge is 1.9 km from the chalet, while Ella Spice Garden is a 15-minute walk from the property.
This is our guests' favorite part of Ella, according to independent reviews.
Couples in particular like the location – they rated it 9.2 for a two-person trip.
Location: Sapmaltenna Passara Road, 90090 Ella, Sri Lanka
Contact No: 0754493313
Email: kurupitaged1999@gmail.com

Back
CTC
CTC RECEPTIONS
Located in Anuradhapura, CTC Receptions offers comfortable accommodations with free WiFi access in the entire property.
Operating a 24-hour front desk, it features a mini-mart and restaurant on site. Simply furnished, rooms come with tiled floo
a desk, clothes rack and freshly-laundered bedding. The attached bathrooms include shower facility, towels and free toiletries.
At CTC Receptions, guests may rent a bicycle or car to self-explore the vicinity. Laundry services, airport transfers and
meeting/function facilities can also be arranged upon request at a surcharge.
This nonsmoking property is approximately 2.5 mi from SLAF Anuradhapura Airport.
Location: 562/F, Udaya Mawatha, 5000 Anuradhapura, Sri Lanka
Contact No: 0716922790
Email Address: vihangah@gmail.com


Back
Eagle Regency
Located in Kandy, 2.4 mi from Ceylon Tea Museum, Eagle Regency Hotel features rooms with mountain views and free WiFi.
All rooms boast a flat-screen TV with satellite channels and a private bathroom. The hotel provides river views and an outdoor po
All rooms in the hotel are equipped with a kettle. Eagle Regency Hotel offers some units with pool views, and each room has a te
All units at the accommodations include air conditioning and a desk. The daily breakfast offers continental and buffet options.
At Eagle Regency Hotel you will find a restaurant serving Chinese, European and Asian cuisine. A halal option can also be requ
The 24-hour front desk can offer helpful tips for getting around the area. Kandy Royal Botanical Gardens is 2 mi from the hotel.
Bandaranaike International Airport is 64 mi away. Couples in particular like the location – they rated it 8.2 for a two-person trip.
Location: N0.18, Welihiriya, Uda Peradeniya, 2000 Kandy, Sri Lanka
Contact No: 0703357410
Email: gayanditp@gmail.com

Back
Turtle Eco Beach
Turtle Eco Beach is a newly refurbished resort just 4 km away from Mirissa city. This elegant property features an outdoor swimming pool
and offers snorkeling activities. Free Wi-Fi access is available in its public areas. Turtle Eco Beach Decorated in shades of purp
elegant rooms at Turtle Eco Beach are furnished with a personal safe, work desk and wardrobe. Bathroom facilities are en suite and feature an outdoor shower area.
This Eco-friendly resort offers traditional massages. Other facilities include a 24-hour reception. The hotel can also arrange for dolphin and whale watching trips.
Turtle Eco Beach is located just a short stroll from the popular Turtle Point surfing spot. Mirissa city centre is within 10 minutes away and Colombo International
Airport is a 3-hour drive with airport shuttle services available at a surcharge.
The property has a coffee shop for guests to enjoy a range of fresh juices and other beverages. Couples particularly like the location
they rated it 9.3 for a two-person trip.
Location: Beach Road, Batalawatta, Mahida, 81000 Matara, Sri Lanka
Contact No: 0714643218
Email: gayaruw@gmail.com

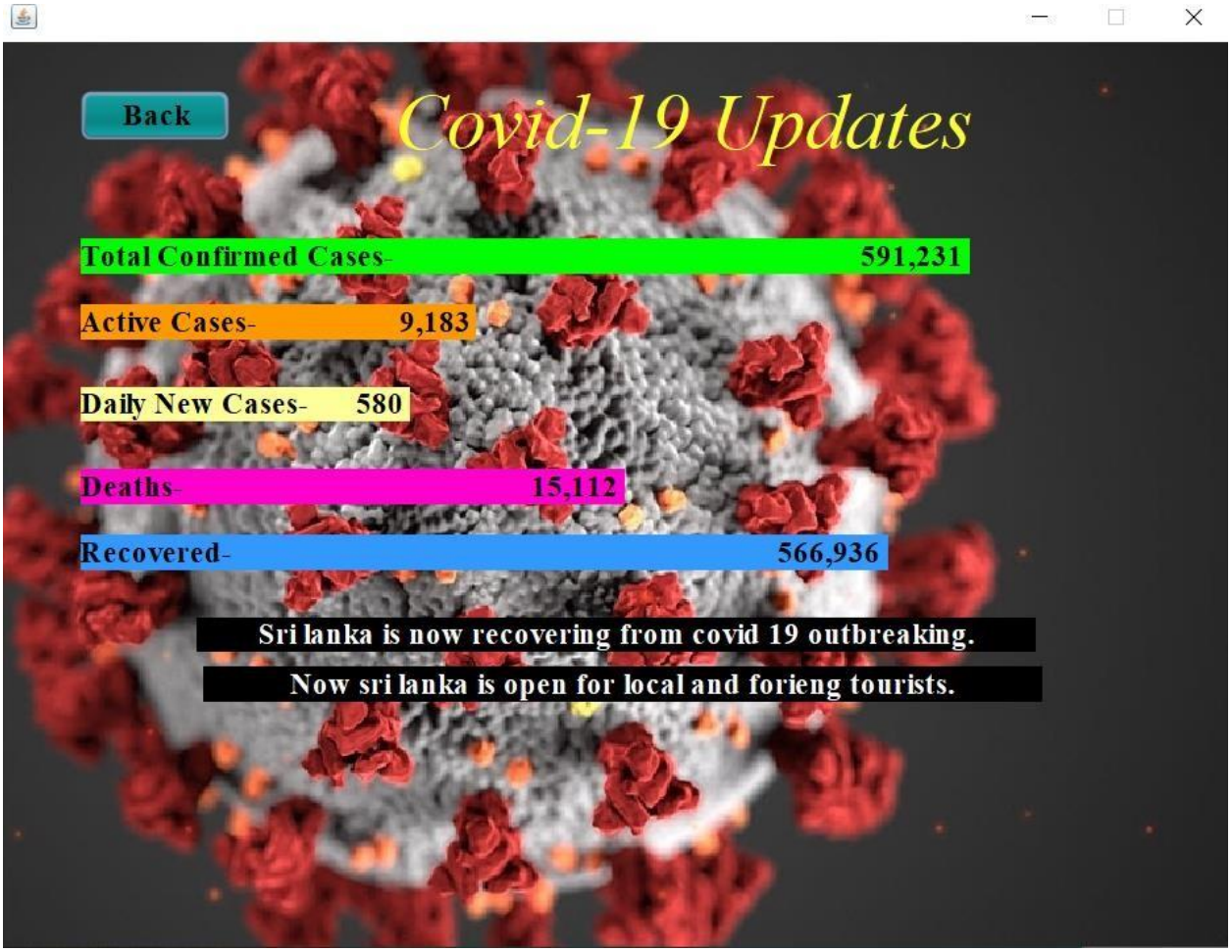


By clicking on the Back button you will direct to the Hotels window again.

- **Vehicles**

Here you can find out several vehicle suppliers where you can find out & book anykind of vehicle & as usual by clicking on the Back button you will direct to the Dashboard.

- **Covid-19 updates**



Here you can get all the updated information about the COVID 19 outbreak in Sri Lanka.

Scope of project

1. Identifying and understanding the basic concepts and the process of travel management.

This project is all about developing a software for a travel management system. For that, the developer should understand the basic concepts and the process of the travel management. User should know how all the stages are continuing in the travel management system, how the travelling places, hotels, vehicles and etc are updated in the travel management system.

2. Identifying the requirements.

There are basic requirements which are the user expect by using the software. If the user of the software couldn't ease the daily workload in travel management by using the software than the earlier, then the software did not archive the requirements. In addition to that, the software should be user friendly. User could easily use the software to do the needful through the software.

3. Gather relevant information to build the system.

After identifying the requirements, then the developer should collect the needful information to start developing the software. It includes the information about the services, information about the hotels, vehicles, and details about the everything related to travelling.

4. Grouping those information according to the requirements and developing functions according to the requirements.

Collected information should be grouped and categorized in terms of the functions and basic requirements the system is going to meet. Some information would suit many functions. then the developer could develop the functions with the information in hand.

5. Design the User interface according to the previously mentioned requirements in a user friendly way.

Developer should design the interfaces in a well-managed and user friendly way. Because the user is only deal with the interfaces. Therefore, they must be easy to use.

6. Finalizing the software by connecting the already developed functions to the user interface.

Finally, the built functions should be connected to the interface. Each of the functions and codes should be assigned to the each of the buttons in the interface.

Outline of the rest of the dissertation

The travel management system consists of many features required for travelling. The system features meet the traveller's requirements, hotel and vehicle supplier's requirements and the owners of the software requirements too.

Trip creator can generate the trip, check for availability of the hotels in the Hotels section and can be taken necessary actions.

Vehicle creator can also check the availability of the vehicles. In addition to that, he can also update the vehicles information, manage the supplier's information etc.

Owner of the can also do all the above things and in addition to that.

Background

Analysis

Functional requirements

Like what mention earlier, as developers, developer should understand the basic requirements which the user would expect through using the software. This category includes what sort of functions are required in developing the software. These functions are the heart of the software as they play the major part in the software. Here are some of the functions which we used in our software.

- Service inventory
- Trip generator
- Manage database
- Supply form

- Daily item information
- Daily information
- Monthly information
- Previous daily information
- Previous monthly information

Non-functional requirements

This contains the basic requirements, but which are not in the major functional aspect of the software. Moreover, the facts like performance, storage, accessibility, are also considered and concerned in this part.

In addition to that, it is not enough how much user friendly the software is. Because the user will also have to meet the basic technological requirements to implement the software and to get best out of it.

In addition to that, there must be proper knowledge about the each of the users' responsibilities in the software. Because if someone going to do another ones work, then there should be many problems occurs.

The Approach

This project is all about developing a software to make the things more ease in managing travelling. This is also a great fortune for us to know specially about the hierarchy of a Travel Management Software and about the basic functions and operations. In terms of travelling, they also have a huge number of benefits such as they can reduce the man power or the number of employees who are working in the fields related travelling. In addition to that, the mistakes which

are going to occur will be decreased when the system is implemented.

Challenges

- The biggest challenge is lack of knowledge on how to develop the software. It contains lack of programming knowledge and the idea on software developing concepts too.
- Gathering the proper and relevant information regarding the requirements.
- Developing the system according to the required coding standards.
- Automating the whole process using the software.
- Completing the task according to the given time frame.

Most importantly, developing the software according to the pre- defined user friendly requirements.

Difficulties arisen

- Lack of knowledge on how to develop the software. It contains lack of programming knowledge and the idea on software developing concepts too.
- Due to the pandemic, there were many communications problems.
- Gathering the proper and relevant information regarding the requirements.
- Developing the system according to the required coding standards.
- Automating the whole process using the software.

- Completing the task according to the given time frame.
- Most importantly, developing the software according to the predefined user friendly requirements.

Work Allocation

Work allocation	Team Member Name	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Project Conception									
Suggesting ideas about the GUI	A,B,C,D,E,F,G,H,I,J								
Suggesting ideas about the tabs and their content									
Reviewing ideas									
Finalizing ideas and drawing basic sketches									
Documentation									
Project proposal	A,B,C,D,E								
Desiging UML diagram	F,G,H,I,J								

Project presentation	A,I								
Project report	C,E								
Initiation									
Getting a list of items that needed to be add to the system	D,E,F,G,H,I								
Desiging the graphical user interface	A,B,C,E								
Programming	A,B,C,D,E								
Programming	F,G,H,I,J								
Adding every item in the data base to the software	A,B,C,D,E,F,G,H,I,J								
Testing and debugging	A,B,C,D,E								
Testing and debugging	F,G,H,I,J								
Testing and debugging	F,G,H,I,J								
Testing and debugging	A,B,C,D,E								

Collaboration by the Group Members on the GITHUB:

➢ **https://github.com/KKDhananjanee/travelmaniaproject.git**