INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

Documentation On

"Voyager-Hub"

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Submitted By:

Group No: 82

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Project Guide

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Centre Coordinator

ABSTRACT

Management System is a complete tourist fully integrated tourism web site. The website covers all the areas required for an including tourism; this project is developed to manage the tourist in the tourism management web site. The main module in this project are login, tourist management, complaints and reports tourism.

Here I have developed a project on Tour and Travel. Online Tour and Travel Booking is a systemthat gives you the facility of booking any type of packages (Summer special packages, Manali tourpackages, Shimla special packages, adventures etc.). This system is made, so that customer can easily book ticket for all packages of tourist place such as hills, trekking, adventures, spirituals anduser can also register for hotels for different types of room The project 'Tours and Travels' is developed to replace the currently existing system, which helps in keeping records of the customer,details of destination as well as payment received. It saves the precious asset that is time, and alsoaccuracy, reliability and uniformity can be maintained.

This project is useful for the manager of the company as it helps them to search the data faster than existing system, to get customer recordeasily and report of the customer payment, etc. are generated as per requirement. Details of different types of tours which include tours like family tours, couple tours, general tours, date andtime of departure and the fair of the tours etc. are maintained. Through this site we can provide different types of travel packages to the custom These sites provide everything related to it itineraries

ACKNOWLEDGEMENT

I take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. I extend my sincere and heartfelt thanks to our esteemed guide, **Mrs. Rupali Thorat** for providing mewith the right guidance and advice at the crucial juncture sand for showing me theright way. I extend my sincere thanks to our respected **Centre Co-Ordinator Mr.Rohit Puranik**, for allowing us to use the facilities available. I would like to thankthe other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement they have given me during the course of our work.

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INTRODUCTION

This project is a Tours and Travels Application i.e. Voyager-Hub is a very user- friendly project. In this project user can easily understand and book all packages and also register for hotel. In this project there are various types of forms, like all types of packages, book for package and Room Registration Page in which user can insert his personal needs & facilities then upload his form by which user can register in the web site. In this website user can also pay money through credit card. This site provides different packages, destination, and hotel booking services in one particular state of India. Himachal Pradesh is very popular hill station of north India. Visitors enjoy snow covered mountain peaks and adventure sports like trekking, mountaineering and skiing. In this website, according to the tour packages it provides services like online booking facilities for all packages and hotels registration to the customer. Inthis project user can easily understand and fill up the Room Reservation form. User can search for various types of rooms. Voyager Hub is a web-based application made in Asp.Net. So, with the help of this project user can apply for packages of tour and room reservation. AREA OF A COMPUTER SCIENCE Web Development is a broad term for the work involved in developing a web site for the internet or an Intranet (a private network). Web development can range from developing the simplest static single page of plain text to the most complex web-based internet applications, electronic businesses, and social network services.

Using Web development, we can design different types of websites and the web application. A more comprehensive list of tasks to which web development commonly refers, may include web engineering, web design, web content development, client liaison, ecommerce development. Among web professionals, "web development" usually refers to the main non- design aspects of building web sites: writing markup and coding.

1.1 PROJECT OBJECTIVE

This application is developed to provide best travelling services to the customers and travel agents. We have developed tours and travel management system to provide a search platform wherea tourist can find their tour places according to their choices. This system also helps to promote re- sponsible and interesting tourism so that people can enjoy their holidays at their favorable places.
This system also helps to develop tourism with different cultures so that they enrich the tourism experience and build pride. We develop this system to create and promote forms of tourism that pro- vide healthy interaction opportunities for tourists and locals and increase better understanding of different cultures, customs, lifestyles, traditional knowledge and believes. This system also provides a better way to connect with various events.

This system also gives tours related information like which places are tourist attractions, cities, and provinces. Tourist can also get the Map and navigation system and temperature and weather in-formation. Tourist can also book tours through our Voyager-Hub. This system also keeps a history of visited places of its users.

Below are the modules of this application

1.2 PROJECT OVERVIEW

The central concept of the application is to allow the customer to shop virtually using the internet and allow customers to buy the items and articles of their desire from the store. The information pertaining to the products are stores on an RDBMS at the server side (store).

The server processes the customers, and the items are shipped to the address submitted by them. The application was designed into two modules first is for the customers who wish to buy the articles. Second is for the storekeepers who maintains and updates the information pertaining to the articles and those of this product is a departmental store where the application is hosted on the web and the administrator maintains the database. The application, which is deploy the customer database, the details of the items are brought forward from the database for the customer view based on the selection through the menu and the database of all the products are updated at the end of each transaction. Data entry into the application can be done through various screens designed for various levels of users. Once the authorized personal feed the relevant data into the system, several reports could be generated as per the security.

1.3 PROJECT SCOPE

This web application will be a platform for users to search destinations as perclient's requirement and schedule.
It will also help user to choose the transportation type.
This web application will also give the choice to select the package client as pertheir choice.

1.4 STUDY OF THE SYSTEM

A Voyager-Hub is **a software product that manages all components of your business travel**. Typically, they are integrated with travel service providers, offering real-time quotes, bookings,and trip logistics in one place

1.4.1 MODULES:

The system after careful analysis has been identified to be presented with the following modules and roles.

The modules involved are:

- Admin
- Users

Activity Diagrams :

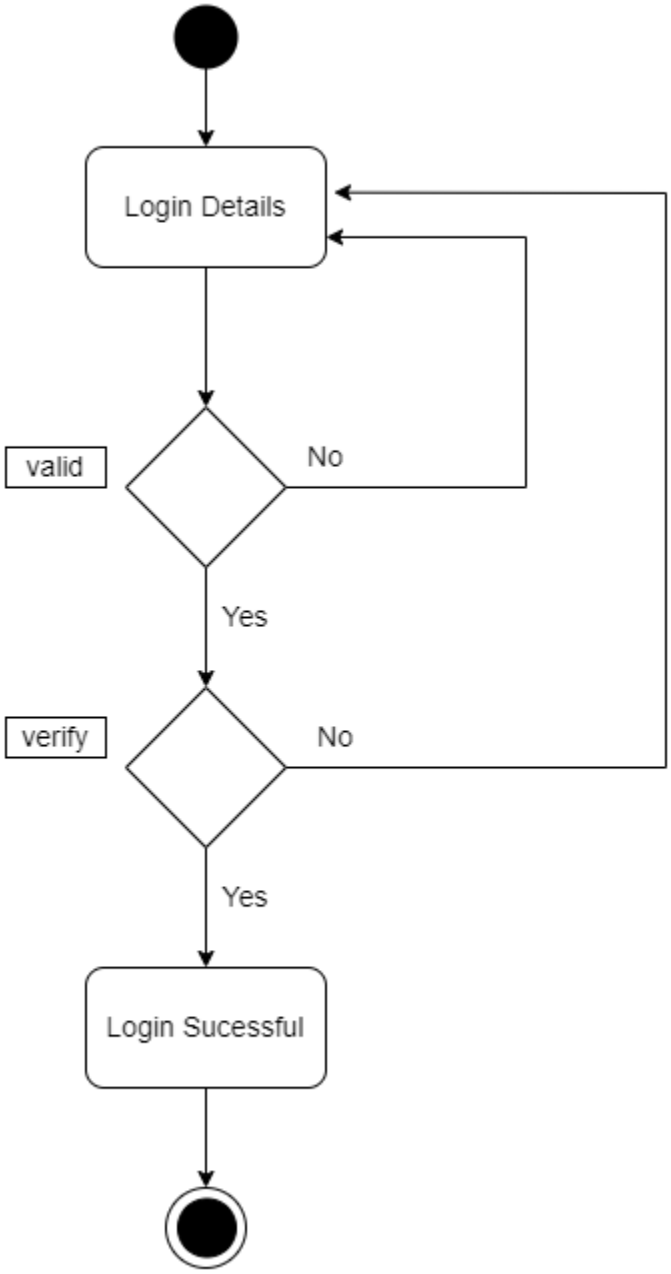


Fig: Login Activity Diagram

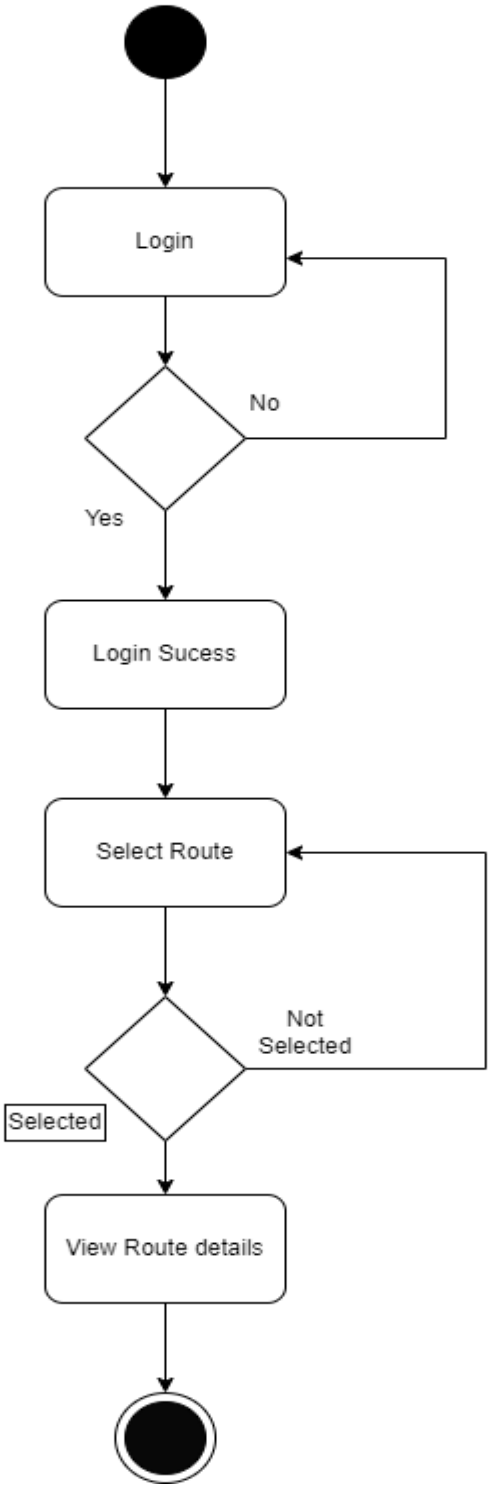


Fig: Confirming Route Activity Diagram

- **User Registration:**
  Users can create new accounts by providing necessary information like username, email, and password.

- **User Login:**
  Registered users can log into the system using their credentials (username/email and password).

- **Login Success:**
  Upon successful login, users are granted access to additional features and personalized functionalities.

- **Select Route:**
  Logged-in users can search and select routes from the available options.

- **View Route Details:**
  Users can access detailed information about selected routes, including start and end points, landmarks, distance, estimated travel time, and any associated notes.

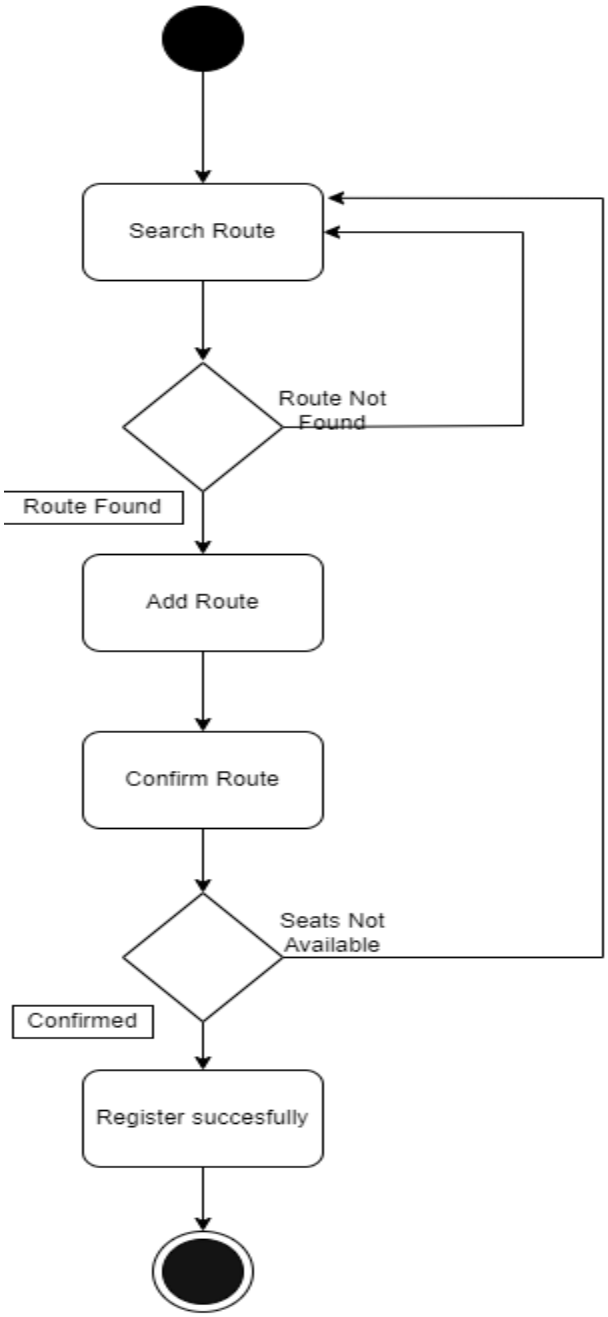


Fig: Register Route Activity Diagram

- **Add Routes:**
  The admin can add new routes to the system, specifying the start and end points, distance, estimated travel time, and any associated details.

- **Update Routes:**
  Admin can update route details, such as changes in landmarks, road conditions, or alternative paths.

- **View All Routes:**
  Admin has access to a list of all existing routes in the system. They can also search for specific routes by name or key details.

- **Delete Routes**:
  Admin can remove routes that are no longer relevant or have changed significantly.

- **Confirm Routes:**
  Admin can review and confirm newly added routes after verifying their accuracy and relevance.

- **Manage Landmarks:**
  Admin can manage the list of landmarks and waypoints associated with each route.

- **Search Routes:**
  Admin can search for routes based on different criteria to efficiently manage the route database.

Data Flow Diagram -

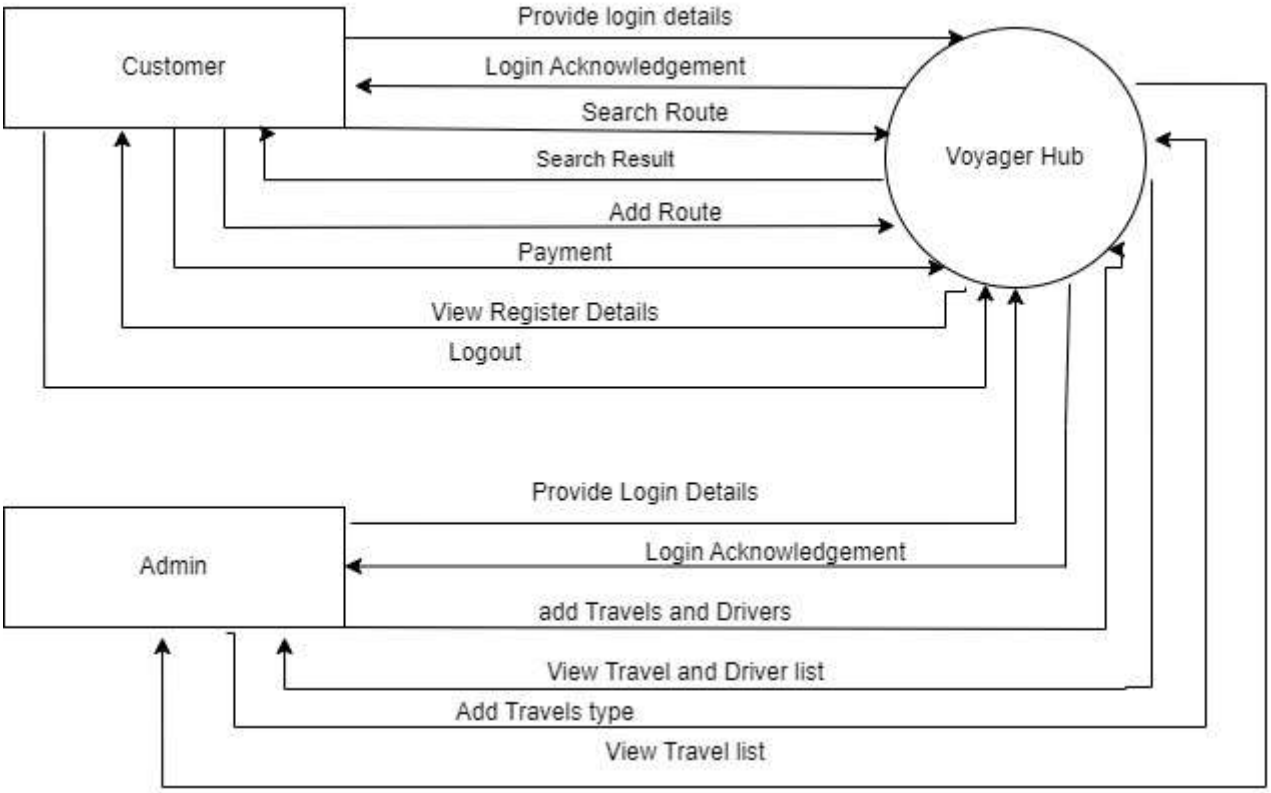


Fig: Zero Level DFD for Customer

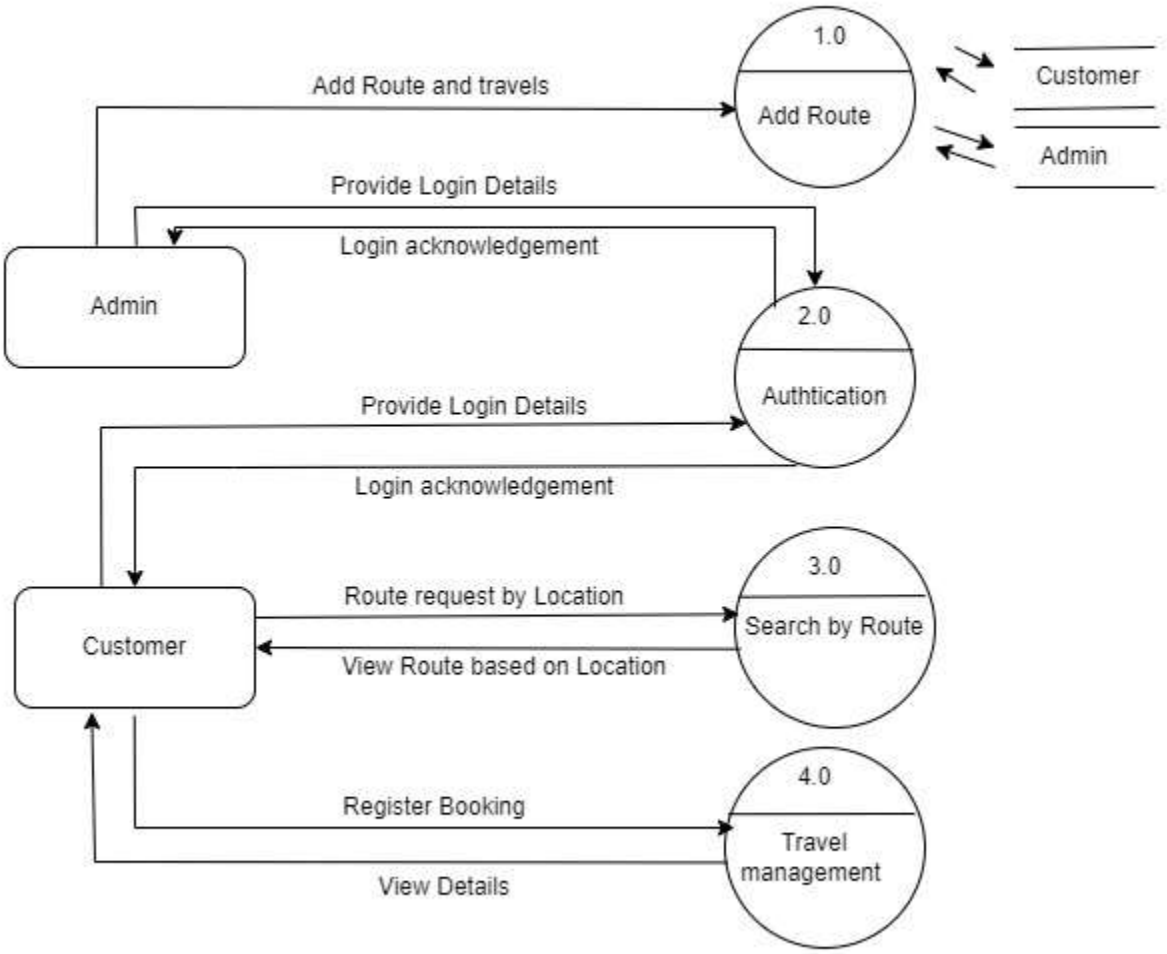


Fig: One Level DFD for Customer

Sequence Diagram:

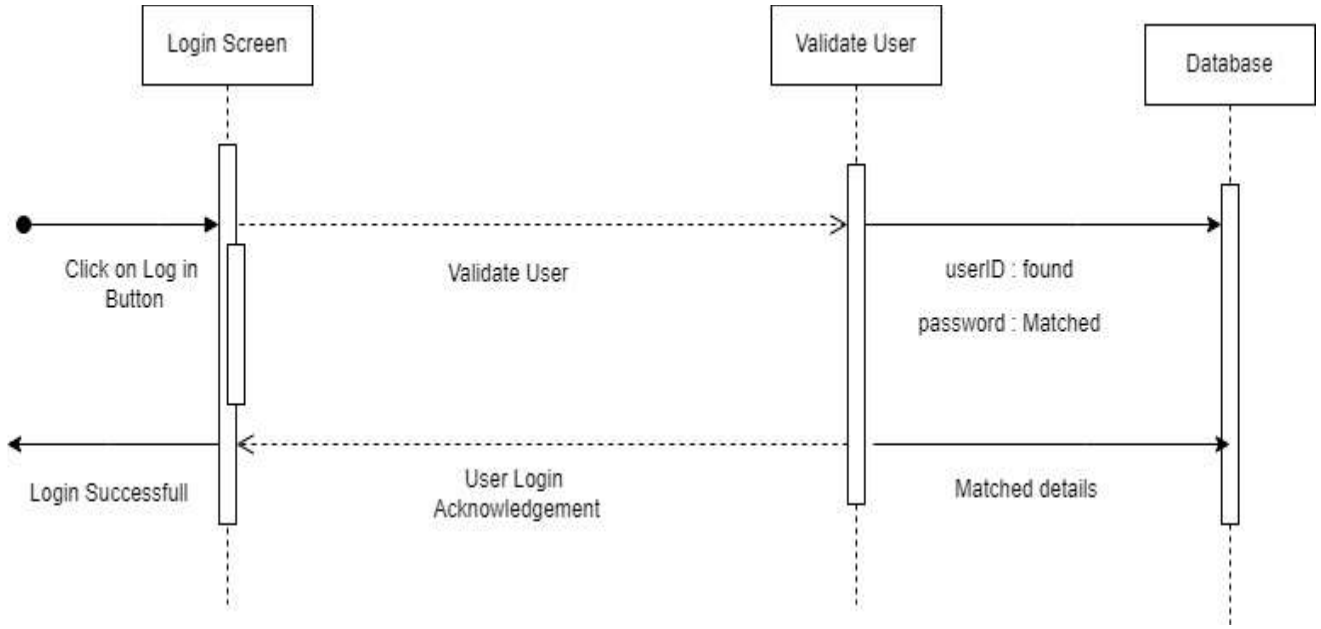


Fig: 1

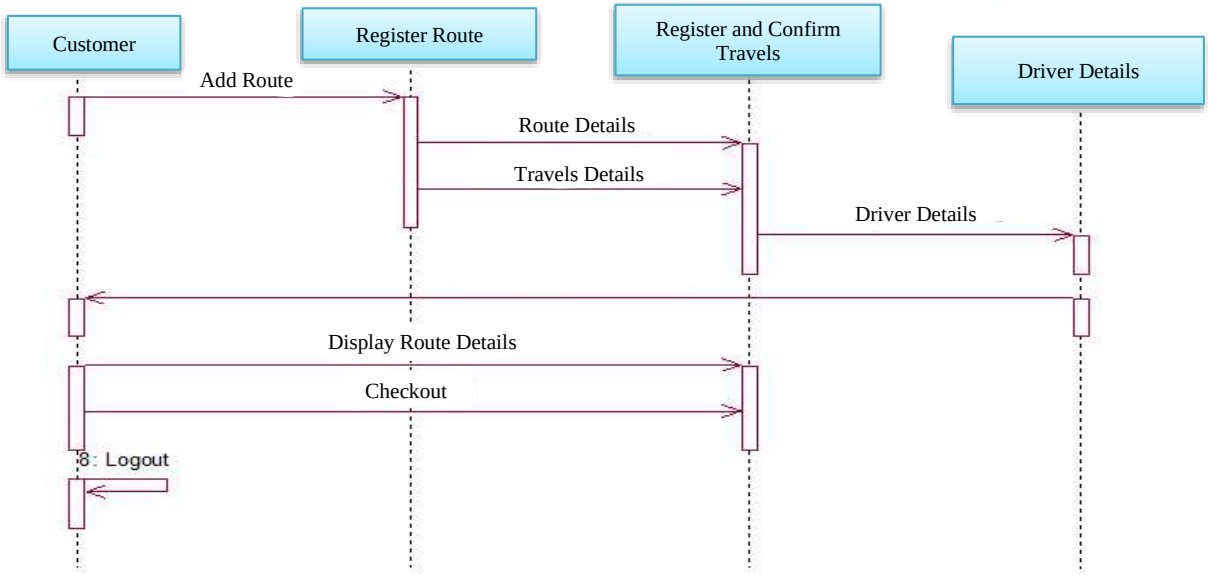
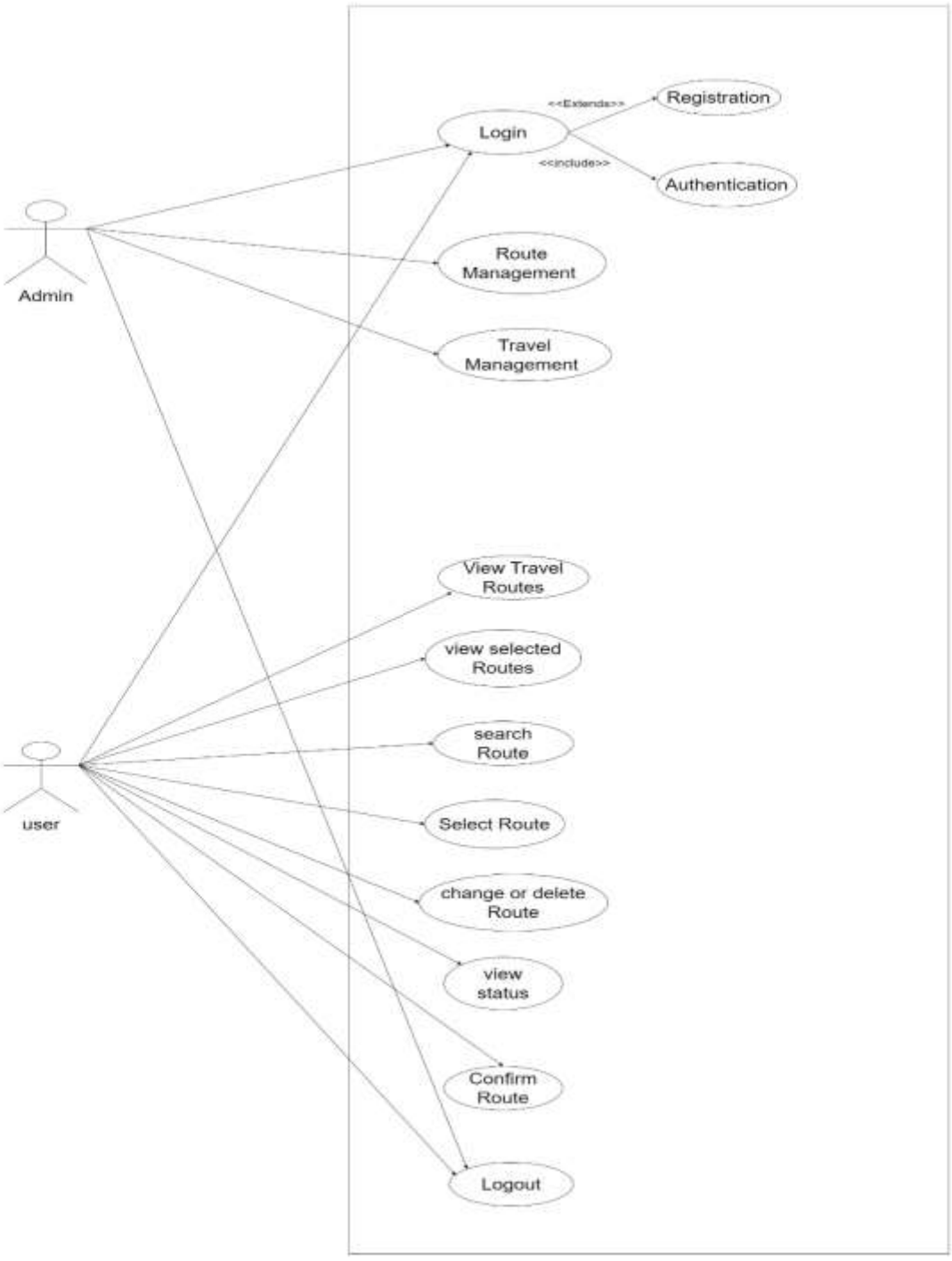
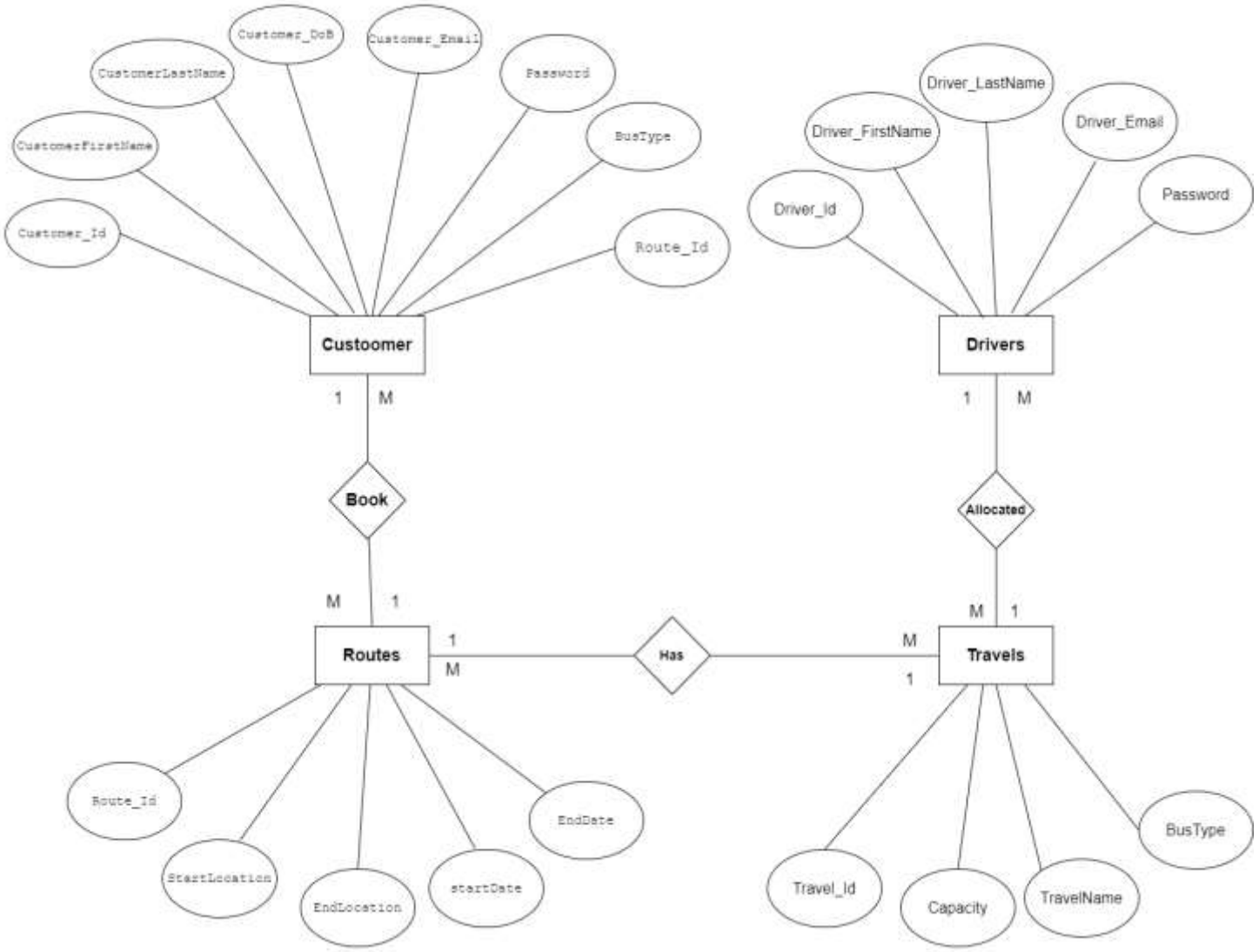


Fig: 2

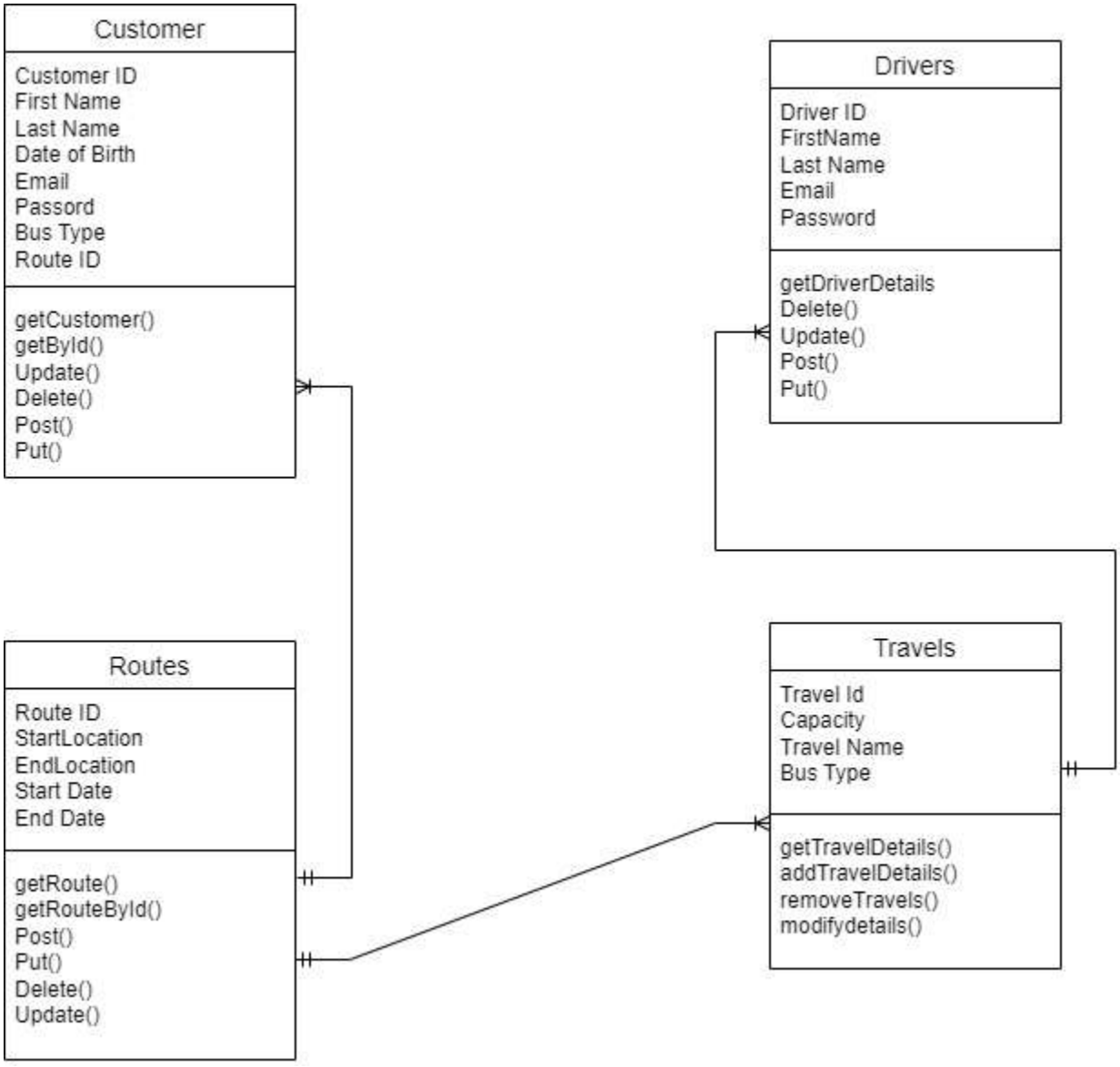
Use Case Diagram:



E-R Diagram :


Customer_DoB
Customer_Email
CustomerLastName
Password
CustomerFirstName
BusType
Customer_Id
Route_Id
Custoomer
1
M
Book
M
1
Routes
1
M
Has
M
1
Travels
Route_Id
StartLocation
EndLocation
startDate
EndDate
Driver_LastName
Driver_FirstName
Driver_Email
Driver_Id
Password
Drivers
1
M
Allocated
M
1
Travel_Id
Capacity
TravelName
BusType

Class Diagram :



Customer sign in, sign out, create account

This feature is provided to customer so he can sign in, sign out and create accountfor new customer.

- **Search Product**

  Customer can search the product as per his wish in specific category.

- **Add to Cart**

  Customer can add products to cart which he wants to buy the products.

- **Payments**

  Customer have a privilege to his order he can see his order details.

- **Order Details**

  Customer have a privilege to his order he can see his order details.

- **Buy Product**

  Customers can buy product from his cart by doing payment.

- **Wish List**

  Customer can have a wish list for future buying products he can add products inthe wish to list.

SYSTEM ANALYSIS

System analysis is the process of gathering and interpreting facts, diagnosing problems, and using the information to recommend improvements on the system. System analysis is a problem-solving activity that requires intensive communication between the system users and system developers.

System analysis or study is an important phase of any system development process. The system is viewed as a whole, the inputs are identified, and the system is subjected to close study to identify the problem areas. The solutions are given as a proposal. The proposal is reviewed on user request and suitable changes are made. This loop ends as soon as the user is satisfied with the proposal.

2.1 EXISTING SYSTEM

The current system for Tours and Travels manually and from the available product choose the itemcustomer want and buying the item by payment of the price of the item.

- ✓ It is less user-friendly.
- ✓ User must go to shop and select products.
- ✓ It is difficult to identify the required product.
- ✓ Description of the product limited.
- ✓ It is a time-consuming process
- ✓ Not in reach of distant users.

2.2 PROPOSED SYSTEM

In the proposed system customer need not go to the shop for buying the products. He can order the product he wish to buy through the application in his Smartphone. The shop owner will be admin of the system. Shop owner can appoint moderators who will help owner in managing the customers and product orders. The system also recommends a home delivery system for the purchased products.

The system consists of two parts. A web application which can provide the online shopping service for the customer to access the web service from his Smartphone/System. Web application should be able to help the customer for selecting his item and to help the owner in managing the orders from the customers.

Problem Statement:

The tourism industry faces a great challenge in the age of the information technology development. The traditional tourism distribution channel faces a threat of the emerging IT environment. Throughout years the tourism industry was dependent on the intermediaries, who enabled the interaction between the suppliers and the customers. Nowadays, however, the suppliers can reach the customer directly via internet having the geographical distance barriers and costs associated to them, disappeared. The internet age changed the complexity of the tourism distribution, enabling the entry of the new virtual intermediaries characterized by a strong competitive advantage towards other players of the sector.

The internet allows a wide range of benefits for the companies and the customers, making the information widely available, reducing the difficulties in purchasing, marketing and distribution, allowing the sellers and the buyers to direct transact with each other. However, companies still face the difficulties on how to capture the benefits in order to position themselves in the digital reality. The entry of the new tourism intermediaries, known as the online travel agencies, introduced an innovative approach to the integration platform, collecting the suppliers and integrating them into a one stop shopping place for the customers.

The success of the platform depends however on the participation level of the tourism products 'suppliers. This raises the question of how to attract the various tourism suppliers to join the platform. The thesis presents a cost/benefit analysis of the joining the platform for every participant. The analysis considers the financial aspects of the decision, but also the intangibles which should influence the long-term strategy for every tourism supplier (hotels, airlines, car rentals companies, cruises). The evaluation compares different distribution channels of the suppliers, both the traditional and emerging ones. The real-life examples to support arguments presented are mostly based on the current world successful cyber mediaries:Expedia, Travelocity and Orbitz.

2.3.1 SYSTEM OBJECTIVES

- To provide a Web application for online Tours and Travels Applications.
- To provide an online shopping web site for the same shop.

2.3.2 SYSTEM REQUIREMENTS

Operating System: Windows

Technology: Java and J2EE

Web Technologies: ReactJS

IDE: My Eclipse, VS code

Web Server: Tomcat

Database: MySql5.0

Java Version: J2SDK1.5

2.3.3.1 NON-FUNCTIONAL REQUIREMENTS

Database Security:

An unauthorized person cannot access the panel and database, do not read and write the information. It should maintain the security of the client's payment method.

Reservations Requirement:

Voyager-Hub should reserve a travel package in maximum 30 to weekly evaluation by theproject guide.

Reliability Requirement:

Voyager-Hub should provide a reliable environment to both customers and owner.Admin

should be able to upload delete update new packages without any error.

Usability Requirement:

The Voyager-Hub in J2Eeand React is designed for user friendly environment and ease of use.

Availability:

The Voyager-Hub in J2EE and React should be available for 24 hours because it offers international tourists reserved packages from different countries so it should be available for 24 hours.

Efficiency Requirement:

When an online package of travel implemented customer can have reserved packages in an efficient manner.

SYSTEM DESIGN

System design is the solution for the creation of a new system. This phase focuses on the detailedimplementation of the feasible system. Its emphasis on translating design. Specifications to performance specification. System design has two phases of development.

- Logical Design
- Physical Design

During logical design phase the analyst describes inputs (sources), outputs(destinations), databases (data sores) and procedures (data flows) all in a format that meets the user requirements. The analyst also specifies the needs of the user at a level that virtually determines the information flow in and out of the system and the data resources. Here the logical design is done through data flow diagrams and database design. The physical design is followed by physical design or coding. Physical design produces the working system by defining the design specifications, which specify exactly what the candidate system must do. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data and produce the required report on a hard copy or display it on the screen.

3.1 INPUT AND OUTPUT DESIGN

3.1.1 INPUT DESIGN:

Input design is the link that ties the information system into the world of its users. The input designinvolves determining the inputs, validating the data, minimizing the data entry and provides a multi-user facility. Inaccurate inputs are the most common cause of errors in data processing. Errors entered by the data entry operators can be controlled by input design. The user-originated inputs are converted to a computer-based format in the input design. Input data are collected and organized into groups of similar data. Once identified, the appropriate input media are selected for processing. All the input data are validated and if any data violates any conditions, the user is warned by a message. If the data satisfies all the conditions, it is transferred to the appropriate tables in the database. In this project the student details are to be entered at the time of registration. A page is designed for this purpose which is user friendly and easy to use. The design is done such that users get appropriate messages when exceptions occur.

3.1.2 OUTPUT DESIGN:

Computer output is the most important and direct source of information to the user. Output design is a very important phase since the output needs to be in an efficient manner. Efficient and intelligible output design improves the system relationship with the user and helps in decision making. Allowing the user to view the sample screen is important because the user is the ultimate judge of the quality of output. The output module of this system is the selected notifications.

DATABASE DESIGN

3.2 DATABASE

Databases are the storehouses of data used in the software systems. The data is stored in tables inside the database. Several tables are created for the manipulation of the data for the system. Two essential settings for a database are

- Primary key - the field that is unique for all the record occurrences
- Foreign key - the field used to set relation between tables Normalization is a technique to avoidredundancy in the tables.

3.3 SYSTEM TOOLS

The various system tools that have been used in developing both the front end and the back end of the project are being discussed in this chapter.

3.3.1 FRONT END:

React is a library which is developed by Facebook are utilized to implement the frontend. React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces or UI components. It is maintained by Facebook and a community of individual developers and companies. React can be used as a base in the development of single page or mobile applications. However, react is only concerned with state management and rendering that state to the DOM, so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality.

3.3.2 BACKEND:

The back end is implemented using MySQL which is used to design databases.

MySQL:

MySQL is the world's second most widely used open-source relational database management system (RDBMS). The SQL phrase stands for Structured Query Language. An application software called Navicert was used to design the tables in MySQL.

Spring-Boot:

This is used to connect MYSQL and fetch data from database and store the data in database. The Spring Framework is an application framework and inversion of control container for the Java platform. The framework's core features can be used by any Java application, but there are extensions for building web applications on top of the Java EE (Enterprise Edition) platform. Although the framework does not impose any specific programming model, it has become popular

in the Java community as an addition to the Enterprise JavaBeans (EJB) model. The Spring Framework is Open-source Framework.

TABLE STRUCTURE:

Tables:

Admin Table :

Field	Type	Null	Key	Default	Extra
id	bigint	NO	PRI	NULL	auto_increment
email	varchar(30)	YES	UNI	NULL	
first_name	varchar(20)	YES		NULL	
last_name	varchar(20)	YES		NULL	
password	varchar(20)	NO		NULL	

Customer table:

Field	Type	Null	Key	Default	Extra
id	bigint	NO	PRI	NULL	auto_increment
join_date	date	YES		NULL	
email	varchar(30)	YES	UNI	NULL	
first_name	varchar(20)	YES		NULL	
last_name	varchar(20)	YES		NULL	
password	varchar(20)	NO		NULL	
bus_type	int	YES		NULL	
dept_id	bigint	NO	MUL	NULL	
route_id	bigint	NO	MUL	NULL	
dob	date	YES		NULL	

Routes table:

Field	Type	Null	Key	Default	Extra
id	bigint	NO	PRI	NULL	auto_increment
end_location	varchar(40)	YES		NULL	
start_location	varchar(40)	YES		NULL	
end_date	date	YES		NULL	
start_date	date	YES		NULL	

Drivers table:

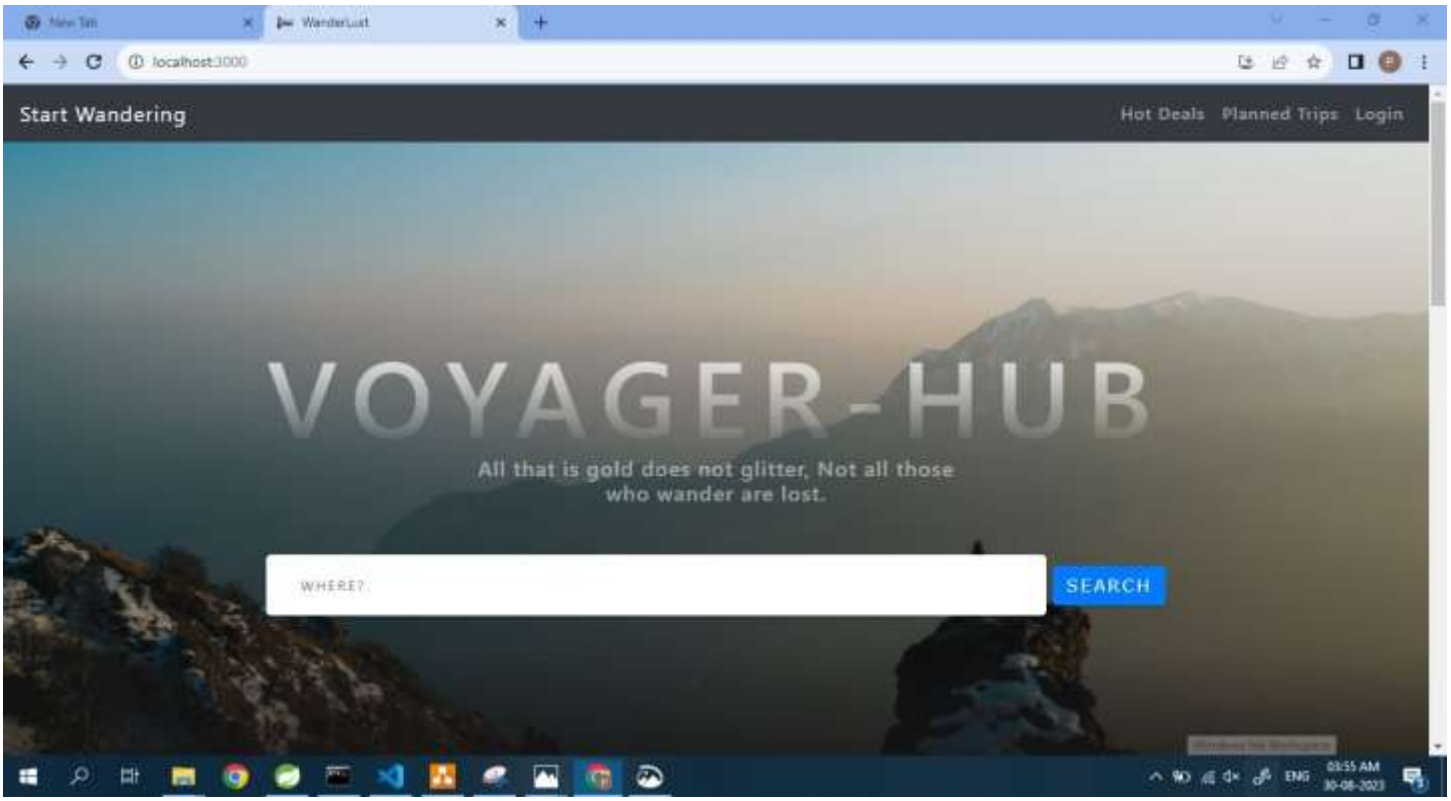
Field	Type	Null	Key	Default	Extra
id	bigint	NO	PRI	NULL	auto_increment
first_name	varchar(20)	YES		NULL	
last_name	varchar(20)	YES		NULL	
email	varchar(20)	YES	UNI	NULL	
password	varchar(20)	NO		NULL	

Travels table:

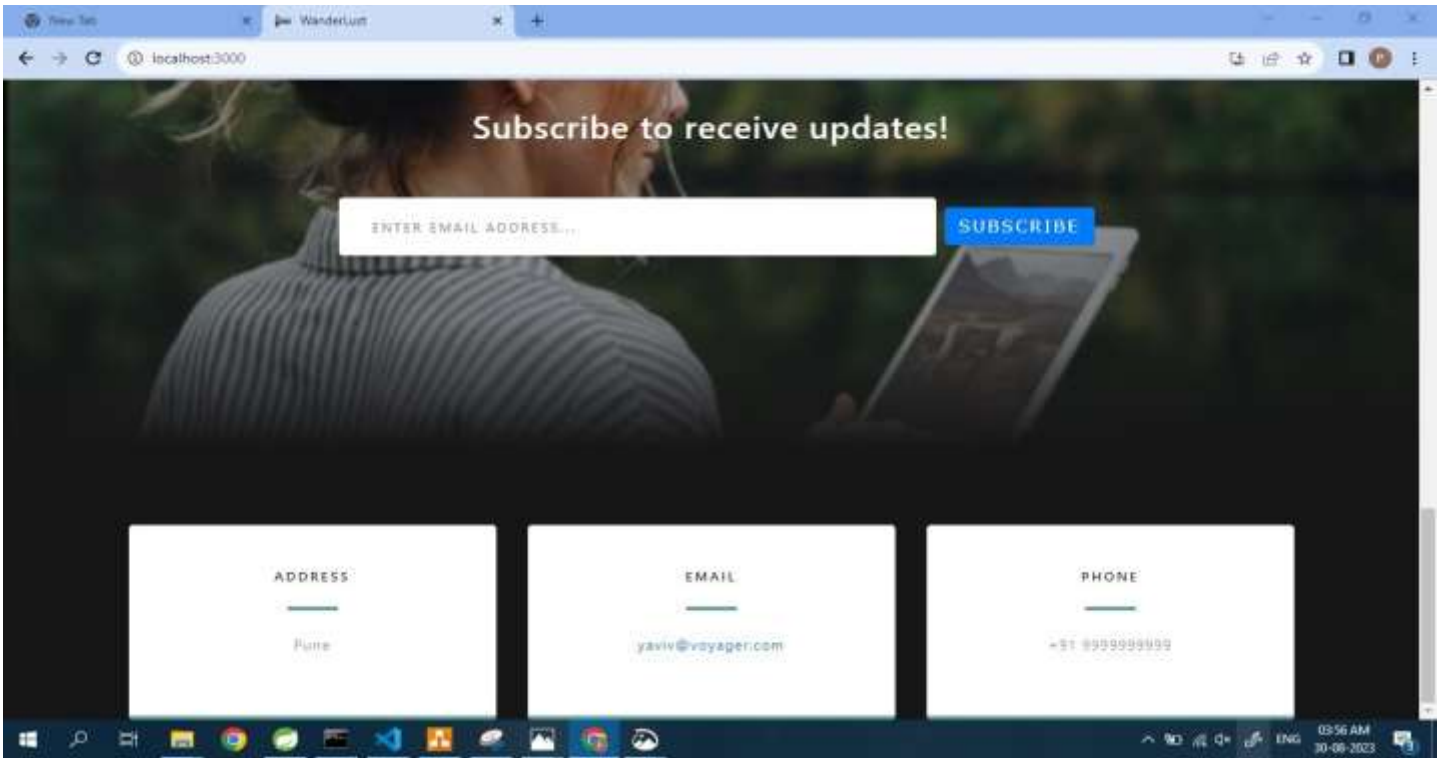
Field	Type	Null	Key	Default	Extra
id	bigint	NO	PRI	NULL	auto_increment
capacity	bigint	YES		NULL	
travel_name	varchar(20)	YES		NULL	
bus_type	int	YES		NULL	

Webpage Snippets

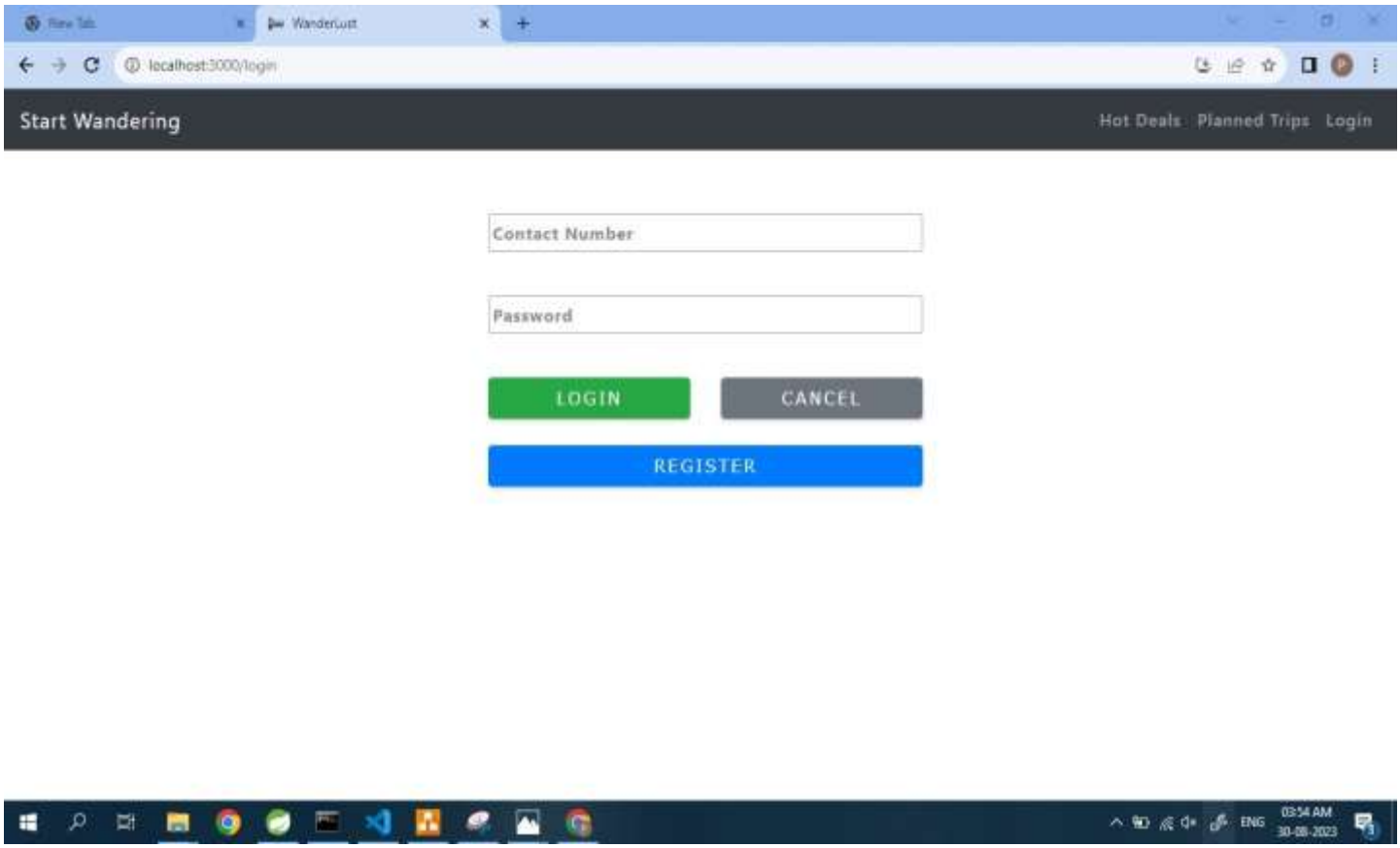
Home Page



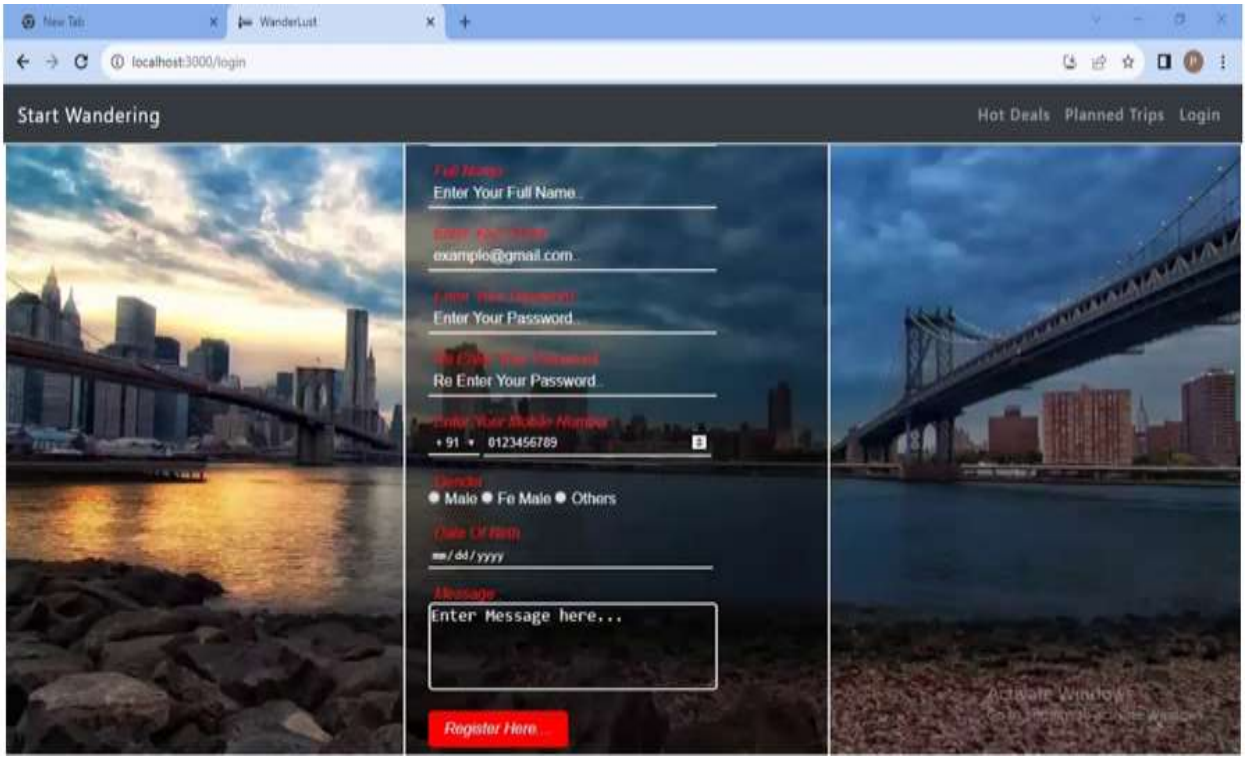
Address Bar


localhost:3000
Subscribe to receive updates!
ENTER EMAIL ADDRESS...
SUBSCRIBE
ADDRESS
Pune
EMAIL
yaviv@voyager.com
PHONE

Login Page


Wanderlust
localhost:3000/login
Start Wandering
Hot Deals
Planned Trips
Login
Contact Number
Password
LOGIN
CANCEL
REGISTER

Sign Up Page


WanderLust
localhost:3000/login
Start Wandering
Hot Deals
Planned Trips
Login
Enter Your Full Name
example@gmail.com
Enter Your Password
Re Enter Your Password
+91
0123456789
Male
Fe Male
Others
mm/dd/yyyy
Enter Message here...
Register Here

CONCLUSION

In conclusion, the Travel Management System web application serves as an integral solution for streamlining and enhancing the entire travel experience. With its comprehensive features including customer service, route management, and efficient admin and driver handling, the system proves to be a pivotal tool in the travel industry.

By offering customers a user-friendly platform to plan and book their journeys, the application optimizes their travel experience, providing convenience and ease of use. The incorporation of customer service functionalities ensures prompt assistance and support, enhancing customer satisfaction and loyalty.

The routes management feature empowers the system to efficiently organize and optimize travel routes, resulting in reduced travel times and enhanced operational efficiency. This contributes to cost savings and improved resource utilization.

The administration and drivers management aspects underscore the system's capability to seamlessly handle personnel and logistical operations. Admins can effortlessly oversee and manage various aspects of the travel process, while drivers benefit from organized schedules and efficient assignment management.

In a rapidly evolving travel industry, the Travel Management System stands out as a comprehensive solution that addresses the core challenges of travel planning and execution. Its user-centric approach, operational efficiency enhancements, and meticulous handling of personnel make it an indispensable tool for both customers and travel service providers. As technology continues to shape the way we travel, this web application is poised to lead the industry towards a more streamlined and customer-focused future.

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https://angular.io/docs https://javaee.github.io/javaee-spec/javadocs/
https://www.w3schools.com