

#### DEPARTMENT OF COMPUTER SCIENCE ENGINEERING, SCHOOL OF ENGINEERING AND TECHNOLOGY, SHARDA UNIVERSITY, GREATER NOIDA

TRIP- A COMPLETE TOURISM SOLUTION

#### A project submitted

#### In partial fulfillment of the requirements for the degree of Bachelor of Technology in Computer Science and Engineering

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**April, 2022**

# CERTIFICATE

This is to certify that the report entitled **“Trip – A Complete Tourism Solution”** submitted by

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The results/findings contained in this Project have not been submitted in part or full to any other University/Institute for award of any other Degree/Diploma.

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Date:

**Signature of External Examiner Date:**

# ACKNOWLEDGEMENT

A major project is a golden opportunity for learning and self-development. We consider our self very lucky and honored to have so many wonderful people lead us through in completion of this project.

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**DECLARATION**

We hereby declare that the project “Trip-A Complete Tourism Solution” has been carried out by our own efforts and the fact arrived a tour observation under the guidance and motivation of subject teacher “Dr. Danish Ather”.

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# ABSTRACT

Tourism is a very wide domain that catches the interest of many people worldwide. But every tourist needs to plan an itinerary that could help in his trip. Various platforms available for this sake but there are several limitations and lacking are there in each of them. Trip provides a full-fledged solution to the customer. Different services like hotel booking, e-commerce, food and, travel could be planned on a single platform only. The application will also be embedded with guide and support option which will help the user whenever needed. We designed here plans as an iterative process where the user at first will give feed-back on interest selection, then system will provide the best option on the basis of feedback and new set of interest of things at the last step. This process completes with the user satisfaction. Our work shows that, for each function and interest choosing, computing an itinerary is NP-complete.[1] Our work us based on heuristics solutions and focuses to optimize to maximum for a case where interest selected by user and scores generated are directly proportional. The various results based on experiments conducted shows the effectiveness and pure quality of the proposed plan by our software.

***Index Terms*** N-P complete, embedded, full-fledged, scores

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# Chapter1: INTRODUCTION

This 'Trip- A Complete Tourism Solution' project is a web application that can help a traveler to plan his itinerary to an unknown place. Everyone likes to travel but planning an itinerary for that trip is one of a major hustle that everyone feels. When it comes for selecting interest point of an individual, it searches for the most interesting places around the city and matches it with the user interest maintaining the time they spend there and measuring the satisfaction level of the user with lowest possible budget. The plan managing apps like trivago and make my trip does provide the itinerary management but they do provide a limited facilities to the user and then a user needs to go to certain other places for the rest of the things.[2] Although there were significant drawbacks that were not tailored according to the user interest at that moment. As for a first timer visitor to Delhi, India Gate could be an interesting place to visit but for a regular person the interest could be to visit Akshardham temple or lotus temple.[1] Then the major task is to find service which could take you to those places satisfactorily. The main problem after all this when is budget which comes to one’s mind as everyone is having their own limit. There are also the things to keep in mind as there might be a person came for night layover or a person who has come to the city for a month or more on a vacation. Thus, all these things must be planned beforehand.

**Overview:**

Tourism is a very wide domain that catches the interest of many people worldwide. But every tourist needs to plan an itinerary that could help in his trip. Various platforms available for this sake but there are several limitations and lacking are there in each of them. Trip provides a full-fledged solution to the customer.

**Project Description:**

Many websites, helps in the same sector of tourism planning but the solution provided by them is a partial solution.

* Our website provides complete planner at a single place rather by sites like Trivago, Booking.com, Dine-out, Airbnb and, meesho etc.
* Our web app does not focus on retail-sell market like amazon rather it provides goods and foods that is trip necessary or is famous purchase of your planned city.
* Our Future aim is to embed a city guide and planning helper, which will help you to plan your trip by recommending suggestion and tells you about the city and its important places.

## Problem Definition

When organising a whole vacation, a user must consider a variety of factors such as the travel itinerary, ticket purchases, and hotel reservations, among others.

Packing, budgeting, and coordinating trip details with travelling companions may all be stressful and irritating aspects of travel planning. Our goal was to identify a major pain point in the vacation planning process for which people have yet to find a solution, and then create a responsive website to address the problem.

Among the most common issues are:

1. The most challenging aspect of travel preparation is coordinating logistics and making collective decisions.

2. Before visiting, users often utilise blogs to learn about the local culture; however, they have no idea which blogs or articles are reliable.

3. Users prefer to pack only the necessities because they are unfamiliar with packing constraints and required items for each journey.

Tourism can either be point of interest or need, depending on people but planning a complete itinerary for that trip is a hectic work for all. Our solution of Trip, helps a user to plan his travel in such a way so that he can manage all his tourism essentials at a single platform only.

The user will be able to plan and manage all the necessary things during his visit to some place and for this he will not have to move to lot many websites and could be done at a single place.

Another important and useful thing is that user will not have to take so many itinerary apps in his phone and just have to install this single one which also saves the phone space which could be utilized for some other purposes.

The combination of mobile and web app will further solve this as if someone does not want to have an app in his phone as he occasionally does travel, then he can use the web version of the app and does all the same work from there as well.

## Project Overview/ Requirement Specifications

* + 1. **Functional Requirements**
       1. **Introduction**

Tourism is a very wide domain that catches the interest of many people worldwide. But every tourist needs to plan an itinerary that could help in his trip. Various platforms available for this sake but there are several limitations and lacking are there in each of them. Trip provides a full-fledged solution to the customer.

* + - 1. **Input**
      2. **Formulation**

It is critical to create specific programmes and follow the actions below in order to achieve the objectives.

• Providing an integrated platform for carrying out all of the tasks required for trip planning.

• Providing a Safe and Secure Solution in order to protect user integrity and increase trustworthiness

• All of the different elements are integrated to make planning a vacation easier.

• A wonderful user experience will emerge from proper planning and synchronisation.

Date of Travel, Location of Travel

The user while confirming a booking for his travel, he just has to give the input to the web app in the form of location to which he is planning to make a tour and also one more input in the form of date and time so that it could help the user to manage his tour for those certain dates.

* + - 1. **Processing**

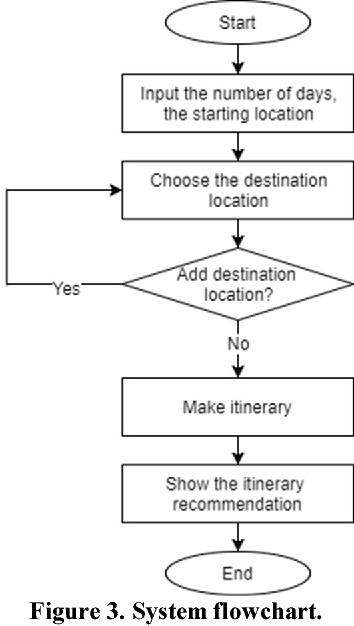


Fig.1. System Flowchart

* + - 1. **Error Handling**

We have used Try Catch and the exception handling feature to handle the errors possibilities. The human mistakes like spelling mistakes can be optimized and reduced to its minimal.

* + 1. **Normal Requirements**

The following demands by the customer should be focused to sustain the satisfaction of the customer:

**N1:** A good interface for the user interaction.

**N2:** Feedback for the improvement and maintenance of the development.

**N3:** The simplification of database tables, for better understanding and maintenance.

**N4:** The application should be able to manage all the necessary things of a customer during a trip.

**N5:** Development of a simple easy UI, for a better user interaction.

* + 1. **Non-functional Requirements**

Some of the user specific entries like name, phone no, etc., are included in this, which have no inter-connection with the programs of the modules but are required for the user.

* + - 1. **Performance Requirements**

The performance is the quickness with which a site’s content loads in a web page and the pace with which it gets renders and the experience of user with its UI. The web apps which responds to with the slow pace to the user input and are slow to render and display and eventually increase abandonment of site are bad performing sites.

* + - 1. **Reliability**

Links to and from other websites indicate that the site is well-regarded. The author(s)' credentials are highly regarded. Citations and references are included in articles. The number of news stories is limited, but they are detailed.

* + - 1. **Availability**

The term "website availability" refers to the ability of people to successfully visit a specific website. If the URL displays the expected content, the website is "accessible." Access by entering the URL or clicking a link from social media, emails, referral websites, and so on. Another term for availability is "uptime".

* + - 1. **Security**

Any action or program performed to ensure that website data is not exposed to cybercriminals or to prevent the exploitation of websites in any way is referred to as website security whereas the protection of computer systems and information from harm, theft, and illegal use is known as computer security, or cybersecurity. Serial numbers, doors and locks, and alarms are commonly employed to protect computer gear, just as they are for other important or sensitive equipment.

* + - 1. **Maintainability**

The act of routinely reviewing your website for bugs and errors, as well as keeping it updated and current, is known as website maintenance. This should be done on a regular basis to keep your website in good shape, stimulate continuing traffic development, and improve your SEO and Google ranks.

## Hardware Specifications

|  |  |
| --- | --- |
| **Minimum Requirements** | **Windows** |
| **Operating System** | Windows 7 |
| **Processor** | Intel i3 |
| **RAM** | 2 GB RAM |
| **DISK Space** | Partition of 5 GB for locally runny of the project. While taking a sufficient partition to host the web app. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Recommended Requirements** | | **Windows** |  |  |
|  | **Processor** | **RAM** | **DISK Space** | **Graphics Adapter** |
| **Visual Studio**  **MongoDB Atlas** | Intel i3 | 2 GB | 1 GB for Visual Studio only.  5 GB for a typical installation | A 32-bit or 64-bit OpenGL capable graphics adapter is strongly  recommended |

## 

## Software Specifications

|  |
| --- |
| **Visual Studio** |
| **Express JS** |
| **Node JS** |
| **React JS** |
| **MongoDB Atlas** |

In this project we will be using these following Hardware:

* Minimum Laptop or CPU Processor i3 or more
* Minimum 2 GB RAM
* Stable Internet Comiection

This project we are using these following Software:

* Android studio
* Flutter (Dait)
* VS Code
* Mongo DB
* React-Node with j s/mernstack

**Language**

* Java Script

# Chapter2: Literature Survey

## Existing System:

**“LITERATURE REVIEW**

|  |  |  |
| --- | --- | --- |
| ADVANTAGES | DISADVANTAGES | RESEARCH WORK |
| There's no need to phone a taxi company to order a cab.  Enhance business processes, group reservations, 24-hour reservations, security, and user-friendly software. | If any of the drivers on a given route is unavailable, it takes a long time to confirm your travel.  It exacerbates traffic and pollution issues. |  |
| reduce the expense of providing and maintaining parking spaces  resolving issues arising from excessive parking demand | A lot of planning is required, which takes a long time. I mean, a great deal! Researching everything, reading reviews, and visiting Pinterest and websites for the best advice on what to see and do. I'm trying to decide which hotels to stay at. Everything must be scheduled. It's a huge undertaking. |  |
| In public transportation, enormous amounts of data about timetables and fares can be stored in electronic databases that can be easily examined and more complex inquiries can be addressed relatively quickly. | Ineffective website navigation might cause any user to become confused and abandon the site. | <https://www.researchgate.net/publication/33038986_A_Review_of_Trip_Planning_Systems> |
| Selling housing services at a low cost.  OTAs are investing in advertising to attract new clients, which means they are spending less on internet marketing.advertising to attract potential customers. | Every sale is subject to commission rates.  Cancellation policies that are restrictive. | <https://www.researchgate.net/publication/228571614_Development_of_Web-Based_Transit_Trip-Planning_System_Based_on_Service-Oriented_Architecture> |
| Every sale is subject to commission rates.  Cancellation policies that are restrictive. | Because there are fewer drivers available, delivery takes longer.  The use of FD increases the amount of plastic garbage in the environment. | https://www.researchgate.net/publication/342855449\_Review\_of\_Online\_Food\_Delivery\_Platforms\_and\_their\_Impacts\_on\_Sustainability |
| Customers like a certain app for a variety of reasons (customer care, packaging, time of delivery). | The three apps are the only ones that are compared.  The survey was done in a small area and for a small number of participants. | https://www.researchgate.net/publication/259823385\_A\_SURVEY\_ON\_TOURIST\_TRIP\_PLANNING\_SYSTEMS |
| Tourists can visit popular and interesting locations in the area while they are there or on their vacation. | Assuring that this strategy will get you to your desired location.  Calculate a score for each tourist attraction. | https://www.hindawi.com/journals/cin/2016/1281379/ |
| Ensure that the customer receives the best possible pricing and complete information about the hotel.  Customers do not pay any additional fees and can fully utilise their leverage in the event of cancellation or delays. | It takes a long time to search various hotel websites for the greatest rate.  Calling several hotels takes a long time. |  |

## Proposed System

## 

The interactive work of itinerary planning that we have proposed is an effort to produce and return complicated objects to the person based on user interaction and their limitations. In a recent paper, we have read the concept of composite things being used as first step pointing toward that goal. An itinerary, on the besides this, is not any random ordering of interest as set; it is strict ordering, as to the constraints. Because the ordering of them enforces a complex relationship between the interest points, and this problem differs and mismatched dramatically from our previous existing model.[3]

The navigation through the information area is made easier by the planner of the itinerary solution. There are exploratory browsing interfaces which are likely as faceted search and are similar to our interactive interest selection technique. Although the interactivity is only limited to interest points.[2]

The division of work on travel planning itinerary are in two categories: Data Analysis and Synthesis for tourism. In terms of the former, there are several research conducted on assessing the interest point of patterns based on geospatial and also on the temporal evidence which are been left by the passengers. These works primarily focus on analysis rather than synthesis of interest point of a user. There also exists a variety of works which are been develop for touristic information synthesis that is related to tourism.[1]

## In the presence of order constraints, a recent paper proposes interactive route search. The proposed approach differs from ours in that it does not take into account the user's budget, does not synthesize previous feedback to learn future probabilities of user preferences, and, more importantly, tries to build an itinerary POI by POI, whereas we take a vocational approach that starts with all possible valid itineraries and narrows them down iteratively by suggesting alternatives.

## Because a travel plan may have a variety of functions for all types of travelers, it's critical for a travel agency person to understand all the requirements of his target market. A typical business traveler's schedule may include information about meetings, activities, and contacts, with some time set aside for leisure travel, whereas a leisure traveler's itinerary would focus on locations, places of interest, and modes of transportation. Online trip planners such as Sygic, Roadtrippers, and Triphobo.com assist adapt to various traveler profiles by making information more accessible and giving a tool for more efficiently organizing a travel schedule.

1. ***Probability Model***

To derive n-k feedback with variety of combinations, it is very critical for a system and for any individual to set k number of interests considered while an itinerary planning. This kind of probability distribution you will be having an added advantage of the system in selecting the subset which will help to optimizes the likelihood that is received from a highly ranked itinerary.[5] Here is used a probabilistic model which could be utilized to combine users' basic preferences (e.g., There are reports of statistics studies of previous query logs, stating that many people who want to see the Statue of Liberty at a moment they also wanted to see the Empire State Building at the same time reference) and personalization (e.g., the most pointed and accurate feedback obtained from the user on earlier taken batches of interests may showcase that this particular individual prefers visiting an art related place). Now, by the following we will be covering our model in greater depth.[1]

1. ***Initial population***

Derivation of starting population is the initial stage of execution for a Genetic Algorithm. A retardant solution for this is encoded by each of the members. Next, every single unit is assessed and also provided a value that is related to the fitness function. The results that are to be received by the genetic algorithm will be much optimized and good if the starting population of the algorithm is good, there will be a huge possibility that the algorithm will be going to find optimized and better result.[3] but, if the fundamental stream of construction blocks is not that good enough for being up to the mark, the time taken by the algorithm for finding best result will be drastically increased.

1. ***Selection***

The chromosomes being picked up by the operator from population. After picking up the chromosomes they are being selected and the tendency to breed of chromosome depends on their compatibility.[8] A new stage of generation is created by taking samples from the pre-existing population.[7] These samples are picked up as solutions briefly as fitness-based model, and in here the selection level of the individual is dependent upon the fitness of the result.

1. ***Crossover***

There exists another operator for genetic called crossover which is used to modify or change the programming included in the chromosomes that helps it for leading from one generation to the next. It is most prone to reproduction and also towards organic crossover, which are the most fundamental foundations of genetic algorithms. The process of converting parents’ solution into child solution be taking more than one solution of parents is known as crossover.[8] The collection of chromosomes sample could be done by various methods. The chromosomes are divided into two children by crossover as it randomly swaps the sequences of before and after the locus.[9] The copy of spontaneous chromosome and recombination between two single-chromosome organisms are done by these crossover operators.

1. ***Mutation***

The genetic variation among the chromosomes of generations to the next is done by mutation by genetic algorithm which is much similar to natural mutation. During the life cycle of a chromosome there are several alterations is done in the values of genes either in a single or more. The outcome can be varied at large scale from the pre measured ones when it comes for mutation.[10] This eventually helps the genetic algorithms to produce a better and reliable outcome. At each and every bit point of a string there are chances of mutation to occur for modest success.

***Fitness function***

The fitness function may be provided for the representation of genetic, thus we can perform depicted level of outcome for each operation. Each of the design obtained is important in the domains of programming and also in genetic algorithms. After all these testing is performed to remove the poorest n designs among all.[11] At the end people are to be provided badge of merit to showcase their closeness to general requirements, and this result is obtained as a result of putting fitness function on testing and trails.

### Feasibility Study

**Costs for technology**To develop a mix of diverse websites, you'll need a high-speed Internet connection, a web server, and software. Other costs to consider include the cost of the payment method, such as accepting online payments directly from the Society's website, utilising a third-party like Pay Pal, or using an online bank, which is more expensive.

**Costs for technological development**A team of programmers will be assigned to develop the essential functionally equipped requirements and program for creating the webapp.

**Costs for support of consultancy**

To guide you through this process, you'll need the help of ebusiness design and implementation experts.

**Costs for the organisation for piloting training**Allowing admin employees who will use the system on a regular basis to test it as a training tool endeavour is always a good idea throughout the technological development of a website.

**Cost for running**

These costs are for the regular maintainence of the web server.

**Costs for processing further change**This is the expense of training and adjusting your personnel to the new technology, mostly the tactics employed to make the transition as painless as possible.

**FINANCIAL BENEFITS**

**Improve Cash flow**Instead of the typical 14-day wait, online payment would allow membership funds to be received the same day as the application was submitted. Eenabling the process of membership to make it faster; it also entails a total reworking of the prior method of handling membership.

**NON-FINANCIAL BENEFITS**

**Communication**

Direct email marketing is quite inexpensive when compared to traditional direct mail marketing. Direct email marketing allows you to express your company's message at any time of day or night.

**Transparency**The membership procedure will become more transparent thanks to the Information Management Website.

**SOLUTION**Our project will rely on a database. Customers' information, for example, may be efficiently stored, modified, and retrieved using a Relational Database Management System.Some of the most extensively used databases include MySQL, MongoDB, MS Access, MySQL, and MS SQL.

There are some methods for making a payment. Which are:

1. Payment Methods Manually entering credit card information into current software programmes.

2. Paypal is a third-party service that provides companies with a cost-effective option to accept online payments for a small transaction fee. This is the most prevalent method of internet payment acceptance.

3. Accepting payments through an online bank is the greatest option because it is secure and speedy.

**Technical Solution Analysis**

MongoDB was picked over the other options based on the following criteria:

•  Flexibility for documents schemas

•  Similar code data access

•  Easy to change design

•  Easy ways for querying and analysis

•  Horizontal scaling easily implemented

Any understanding of the scheme's principal specifications is required for feasibility analysis. Computer Feasibility Dimensions would be as follows:

* **Technology**

Is the project feasible from a technological standpoint?

Is it a part of the current state of the art?

Will failure be confined to the necessity for a high-quality implementation?

* **Finance**

Is it feasible from a budgetary standpoint?

Is it conceivable for the web application and its customer to reach a fair level of production?

* **Time**

Can the time it takes to sell an idea trump the competition?

* **Resources**

Will the company have the funds it needs to succeed?

Major points to manipulate viability:

1. **Technical Feasibility**

The goal of this analysis is to determine the system's technological viability, or technical requirements. The technological resources necessary are not required by any established system. This will put even more burden on the limited intellectual resources. It would boost the customer's already high expectations. Because this system may only be used with limited to no modifications, just the most basic requirements must be met.

In the following ways, practical evaluation of feasibility can be carried out.

* 1. NP-Complete
  2. NP-Hard
  3. Satisfiability

1. **NP-Complete**

The P Class includes problems that can be solved in polynomial time. Such concerns belong to the NP class, which may be proved in polynomial time.

A question p in NP is NP-complete if any other issue in NP can be turned (or reduced) into p in polynomial time**.**

1. **NP-Hard**

There are several issues for which no feasible solutions have been found. In comparison to P, NP, and NP-Complete, these issues are frequently more complicated. This can require high multiplicative constants, exponent terms, or polynomials of high order.

1. **Satisfiability**

The Boolean formula is satisfied if there is at least one way to add value to its vector and we express it using SAT. The conundrum of determining whether or not the supplied formula is adequate.

1. **Cost Feasibility**

The economic impact of the scheme on the business is assessed in this study. It limits the amount of money that may be spent on strategy research and development. The expenditures must be justified. As a result, the developed system was also developed within the budget, which was possible because much of the technology used is easily available. It was only right to purchase the customized things.

## Risk Management:-

* + 1. **Risk Identification**
       1. **Product Size Related**

R1 Additional lines of code or redundant algorithms might cause memory to be squandered.

* + - 1. **Customer Related**

R2 Because its customer isn't a professional, reading the customer's further criteria can be difficult.

R3 If a customer provides superfluous information, it may expose them to an unknown risk.

* + - 1. **Process Risk**

R4 During segmentation, a hazy or distracting image can be examined.

* + - 1. **Technical Risk**

R5 If character traits are not extracted, the complexity of ANN will grow.

* + - 1. **Development Environment Related**

R6 It is hard to change the entire system configuration to satisfy a client's request or an unwanted alteration made later in the implementation phase.

R7 Completing project modules can be difficult due to inexperience and a lack of tool training.

* + 1. **Strategies used to manage Risks**

S1 We can avoid Chance R1 by minimizing redundant coding.

S2 Meeting with the consumer on a frequent basis helps to mitigate risk.

S3 As previously said, R3 develops the system appropriately in order to incorporate improvements at a later stage and keeps all essential papers to minimize risk.

S4 Prior to segmentation processing, use a suitable noise reduction algorithm.

S5 To simplify the ANN's complexity, extract the character's feature.

S6 We have decided to finish a phased operation model and transfer the same number of staff to our client. The project's ANN component is tough and extensive.

S7 We will continue to improve the software's capabilities as consumer demand evolves.

S8 By providing proper tool instruction, we will be able to prevent R7.

## Project Plan

All Sections:

1. Register/Login UI: This section will contain a form for the users to register or login, at the starting of the    application.

2. Service Page: It will be a basic design page, showcasing all the provided services in different sections.

3. Staff Payroll Management: This section will have a complete system to keep a record of all its staff members and their respective payroll, by filling up some entries.

4. Inventory Management: This section will have the system for noting down all the inventory related information.

5. Bill Generator: This section will be handy for generating an invoice for any kind of purchase or order placed, and will also provide a QR code for the bill.

Features:

1. Secured Register/Login: The owner will have to register him/her and then him/she can login into the application, by filling up the form, and we would also try to provide a feature for forgot password.

2. Easy UI: The UI of all the pages will be user friendly and easy to navigate, according to Indian users.

3. Payroll Management Feature: The owner can have a full record of all its staff members and their payrolls.

4. Inventory Management Feature: According to their need, the owner can have a full record of all the inventory of its business.

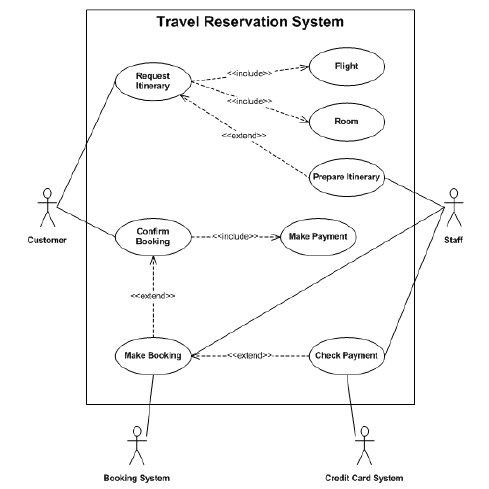
5. Bill Generator Feature: This feature will help the owner for generating an invoice for any kind of purchase or order placed, and will also provide a QR code for the bill.

# Chapter 3: System Analysis and Design

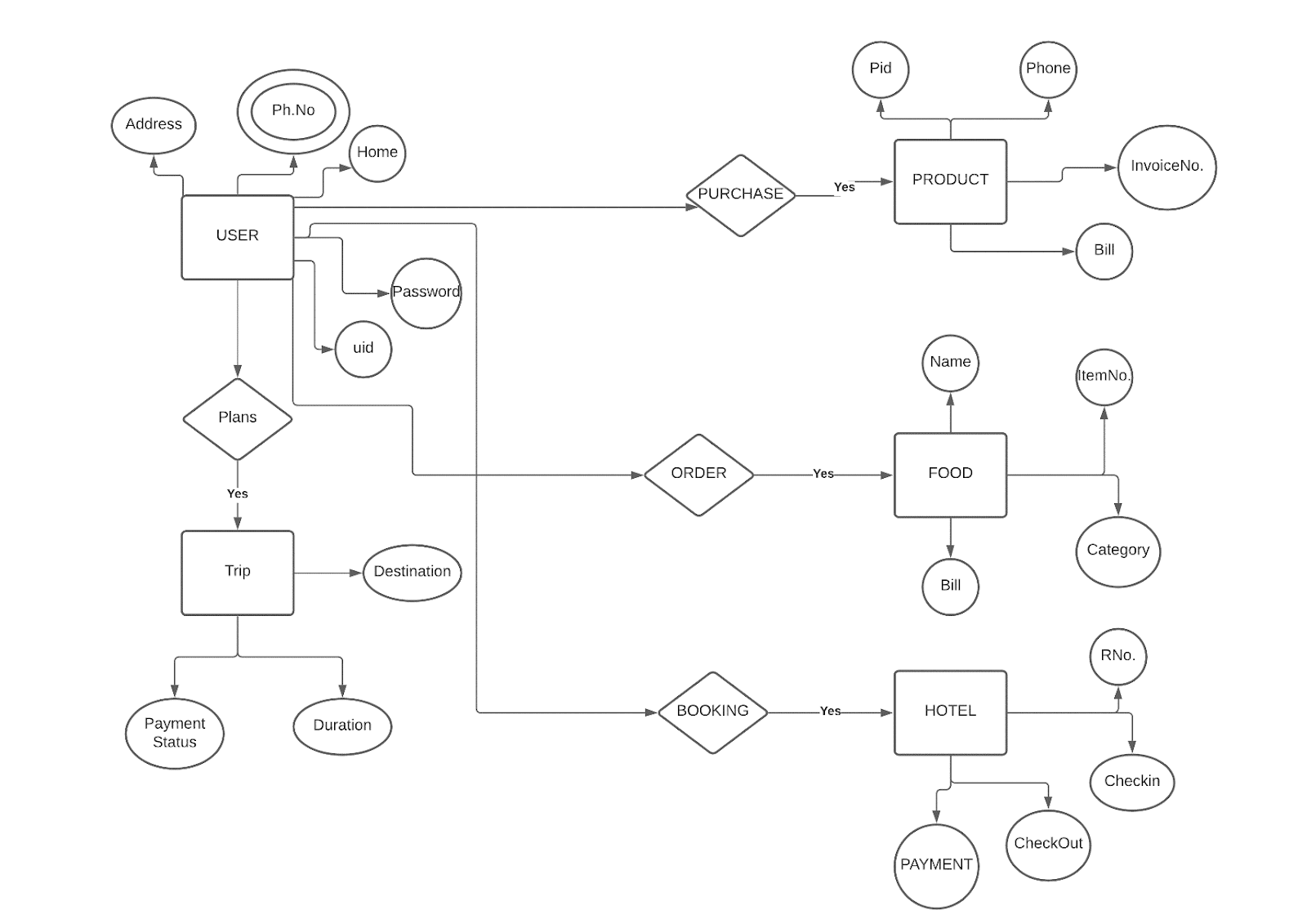
## Software Requirement Specification

## Flowcharts/DFDs/ERDs

**USE CASE DIAGRAM:**



**Entity Relationship Diagram**

****

* 1. **Design** **Methodology**
* First we will be creating an account registration and login interface for the users which will be synced across all modules.
* Then, we will create a very simple user interface for easy navigation among all the services we provide.
* On the home page, we will be getting all the users necessary details regarding the complete tour and providing solutions accordingly.
* Starting with the travel we provide complete travel solution including flight or train bookings with all other modes.
* We also provide hotel/motel reservations for easy staying near any place.
* Our application also includes food services by nearby restaurants also providing delivery facilities.
* An e-commerce service will also be provided for all the essentials need for travel shopping. This will separately include different section for owners and shoppers.
* Complete tourism guide will also be provided including all the guide maps with user reviews.
* And, at last we will also try to add a feature which will send the final bill to the customers and will also try to send the payroll information to the employees.
  1. **Software Testing**

The Project is designed based on four fundamental values:

* The user interface and the ineractions with the individuals has prime importance than processes and instruments.
* Building a Good Software require great documentation.
* Expanding the customer chain on a large scale is given more priority than negotiating contracts.
* Adapting to change is preferable to sticking to strict plans.

Testing Phase:

1. Functionality Testing:

Checking all the links on the webpage along with all the database functionalities,all the text forms submissions and much more.

Checking all different links such as:

* Checking all the redirectional page links from all the web pages to fulfil the request.
* Make sure all internal links are working.
* Finally, link checking entails verifying all of the above-mentioned links for broken links.

1. [Usability testing](https://www.softwaretestinghelp.com/usability-testing-guide/):

It implies the sequence of judging a page responsiveness i.e. checking its behaviour on human interaction and checking for all the flaws that needs to be corrected

* Easy learning
* Easy navigation between different sections
* General appearance

1. Interface testing:

The server-side interface should be checked during web testing. This can be accomplished by ensuring that the communication is carried out correctly. The server's compatibility with software, hardware, the network, and the database should all be checked.

The main interfaces are:

* Application server interface
* Web server interface.
* Database server interface.

1. Performance Testing:

The web application must function with its full potential even in the presence of heavy traffic.

* Web Load Testing is an important part of web performance testing.
* Stress Testing on the Web

Test the app's performance with various internet connection speeds.

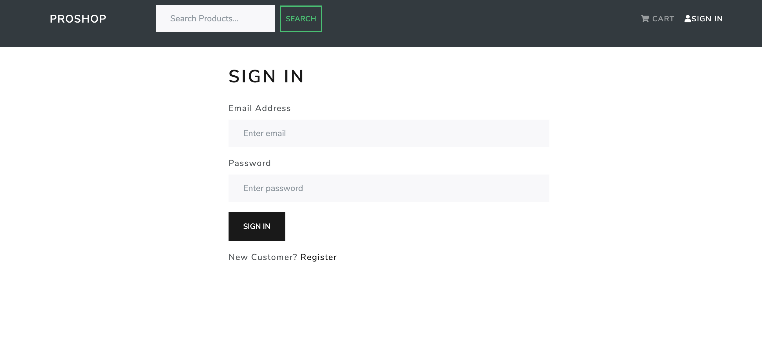
Web load testing is required to determine whether or not a large number of users are accessing or requesting the same page. Is the system capable of handling peak loads? The site should be able to handle a huge number of simultaneous user requests, significant amounts of data from users, multiple connections to the database, excessive demand on specific pages, and so on.

Web Stress Testing: When a system is stressed, it is stretched beyond its set boundaries. Web stress testing is used to break a website by putting it under stress and then observing how the system reacts to the stress and recovers from crashes.

1. Security Testing

 Perform a test by typing the internal URL into your browser's address bar without logging in.  Internal pages are not suggested to be opened. Try changing the URL parameters directly if you're browsing internal sites while logged in with your username and password. If you're looking at the data for a publisher site with the ID=009, for example. Replace the current logged-in user's site ID in the URL site ID parameter. The capacity of this person to look at other people's stats should be limited.

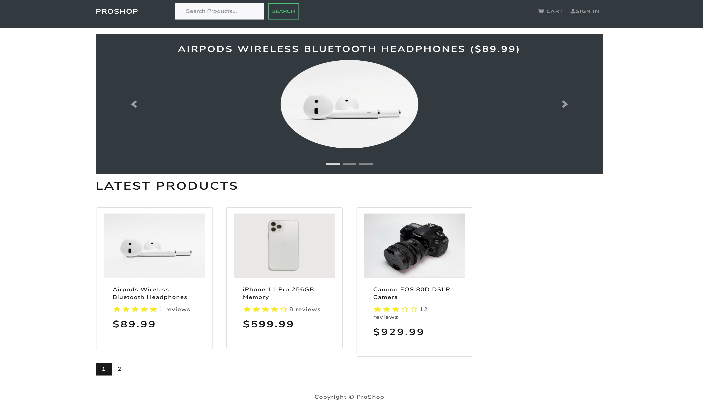
# Chapter 4: RESULTS / OUTPUTS



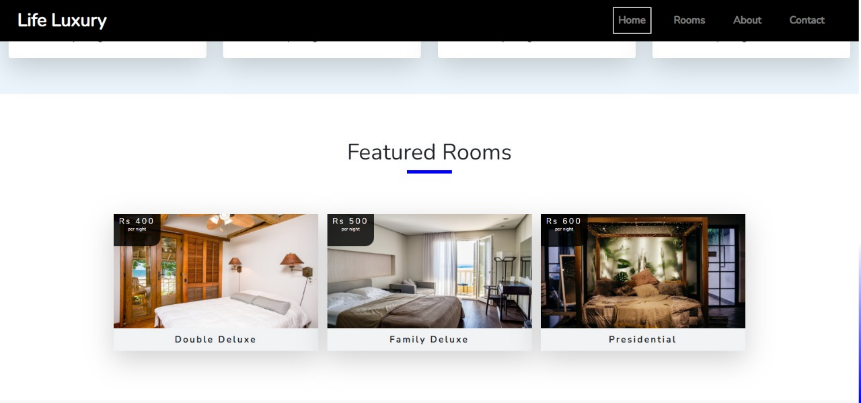
Firstly, user can see a login screen where user have to enter their account username and password for logging in to their account.[15] If the user is new and does not have any user-id by which he can log in, there will be an option for signup by which a user can create its user-id and password for its new account.

After successfully login the user is redirected to the Dashboard where he gets the option to use various functionalities offered by the app. The dashboard window will consist of an e-commerce, a hotel booking, a food ordering and, travel management along with a feature of local guide.

The user can navigate to any of these simply by just a single tap to the icon. The redirected page will be open for the user for simple proceeding of their requirements.



An e-commerce app provides a platform to the user where, he/she can purchase various products that are required during a trip or are necessary for travelling purposes. Also, user will now about the local market there but is need of some product urgently or wants to purchase some local goods or to compare the price of any product from the local market, all these things can be done by adding an e-commerce to the application.

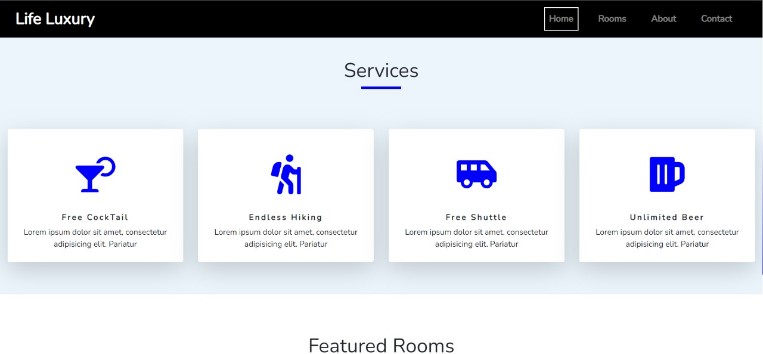


The room booking or the hotel booking is one of the embedded features of the travel planning and management. Whenever a person plans to go on a trip the first thing that comes to his mind is booking a room for his/her accommodation.

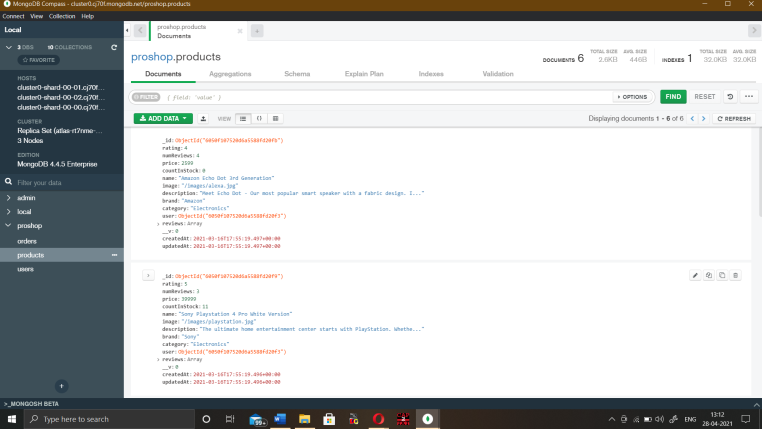
Trip along with various other features also provides a facility to book an accommodation online for personal stay. The user can book a hotel or can opt for staying in a house. This could be simply understandable as a mixture of two accommodation websites oyo and Airbnb.



Hotel booking is sometimes very crucial also as boarding an international flight or going to some places often require complete plan of your stay as a required thing. Thus, you can plan your logistics with trip in just few clicks. The merge of features from two trending website gives the advantages of both and cover their lacking from every aspect. Just like for some people privacy is a top concern along with necessary essentials and room service while for other this might not be an essential requirement in their trip as they can manage even without these luxuries and they are just in need of a place to stay at a reasonable price thus both these could be sorted out by our website.



All the facilities provided by the hotels can be listed on the website thus user can see all the welcoming features and facilities that is provided like free welcome drink, pickup and drop facilities etc., These services provide will create an extra add on for the user to book a better and suitable room for him. These features can enhance user experience on their stay thus on the basis of their stay they can rate their visit to the accommodation accordingly and this rating will be displayed on the website for the other users, thus other users can see user experiences and rating of that hotel and book a desired room for themselves. There are some other applications also, embedded in Trip like food ordering, travel planning management and, local guide which provides various facilities to the user which are necessary part in planning a tour. The user will be able to order local and various kinds of cuisine online by Trip which will help user to buy quality food at the place of their residence and at short delivery time user will be able to enjoy authentic local dishes. By Travel planner user can book and manage their travel at the unknown city and does not have to look for local transport organizers for planning their tour inside the city and everything could be preplanned at reasonable price. Thus, would not cause hustle at the time of trip. And the most interesting feature of Trip is the local guide which will allow a user to gain more and more knowledge about the local city. Thus, user will not face any difficulty at new place and will have some knowledge about that place. Also, the user will have a certain idea about the place and their local monuments, museum and other places where the traveler can visit and have full enjoyment of the tour.



All the databases are managed by the admin portal which can view and manage the data for both seller or business person as well as the consumer. All the database handling and processing is done in NoSQL and the software used for this whole management is MongoDB. We have used MongoDB atlas because it is the most reliable and durable software and is trusted by many big organizations worldwide. All these three, admin, seller and, buyer is given different types of access to the database as seller can add stuffs whereas the buyer will have the option to add them to his cart and have a safe purchase. On the other hand, the admin is given full control to add, view, modify items as well as to manage and modify the account details of seller and buyer in the database.

# Chapter 5: Conclusion

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Fig. Combined plan system

The main eye-catching key point of the plan is its many in one functionality which offers a user many different facilities at a single platform. The user will be able to plan and manage all the necessary things during his visit to some place and for this he will not have to move to lot many websites and could be done at a single place. Another important and useful thing is that user will not have to take so many itinerary apps in his phone and just have to install this single one which also saves the phone space which could be utilized for some other purposes. The combination of mobile and web app will further solve this as if someone does not want to have an app in his phone as he occasionally does travel, then he can use the web version of the app and does all the same work from there as well.

## Further Improvement: -

* + - Using AI for giving the most relevant products according to the searches done by the user.
    - Showing and recommending the user for the products based on their previous searches.
    - Embedding a module for local guide which can show the user nearby places to visit and things to do thus user will have an idea about the activities he can do at a new visited place.
    - Providing user, a facility of maps for the clear knowledge of direction and will provide user to bookmark a place.
    - Giving a user to book a cab for his regular commute.

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