
**Tribhuvan University**

**Faculty of Humanities and Social Sciences**

# TRAVEL GUIDE APP

**A PROJECT REPORT**

**Submitted to**

**Department of Computer Application**

**Divya Gyan College**

**Putalisadak, Kamaladi**

***In partial fulfillment of the requirements of the Bachelors in Computer Application***

Submitted by

Nabin Gurung

TU Reg No: 6-2-751-18-2019

Under the Supervision of

**Mr. Shrijan Shan**


**Tribhuvan University**

**Faculty of Humanities and Social Sciences Divya Gyan College**

# SUPERVISOR'S RECOMMENDATION

I hereby recommend that this project prepared under my supervision by NABIN GURUNG entitled "**Travel Guide App**" in partial fulfillment of the requirements of BCA 6th Sem (Project II) for the degree of Bachelor of Computer Application is recommended for the final evaluation.

**SIGNATURE**

Mr. Shrijan Shah

**SUPERVISIOR**

Department of IT Divya Gyan College

Putalisadak, Kamaladi

**Tribhuvan University**

**Faculty of Humanities and Social Sciences Divya Gyan College**

# LETTER OF APPROVAL

This is to certify that this project prepared by NABIN GURUNG entitled "**Travel Guide App**" in partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

| | |
|---|---|
| **SIGNATURE of Supervisor**<br><br>Er. Shrijan Shah,<br>Project Supervisor<br>Department of IT<br>Divya Gyan College | **SIGNATURE of HOD/Coordinator**<br><br>Mrs. Annu Khanna Nakarmi<br>Head of Department<br>Divya Gyan College |
| **SIGNATURE of Internal Examiner**<br><br>Mr. Shirish Timilsina,<br>Lecturer<br>Department of IT | **SIGNATURE of External Examiner**<br><br>Mr. Nawaraj Paudel<br>Assistant Professor<br>HOD, Central Department of Computer Science & Tribhuvan University |

# ABSTRACT

The Travel Guide app is an app made to make travel easier for new people. It includes searching for different location based on user preferences like cultural heritage, historical places, adventure, or local places with the city. It helps to connect people with the places that they are visiting. Our app includes search function to browse through different places and give basic information about the place. It helps to navigate to those places so it helps traveling easier. It uses algorithms like A* algorithm (A-star algorithm) which is a graph traversal and pathfinding algorithm which find the optimal path from your current location to the destination that you want to travel. For now, our app focuses on short travel destinations near Kathmandu, allowing tourists to explore within a day or two before they can plan longer trips to other places within the country. Places can be added by the admin with their information and map to reach that place. Our app intent to promote cultural heritage, different places and hidden gems with the country.

**Keywords: historical, heritage, cultural, adventure, A* star**

# ACKNOWLEDGEMENT

Apart from the efforts, the success of any project depends largely on the encouragement and guidelines of many others. We take this opportunity to express our gratitude to people who have been instrumental in this successful completion of this project. I am eternally grateful and show my gratitude who devotes their energy, resources and valuable advice and direction under whom I executed this project.

My warm respect goes to our project supervisor Mr. Shrijan Shah. His constant guidance and willingness to share his as knowledge made us understand this project and its manifestations in great depths and helped us to complete the assigned tasks. Our Project coordinator **Mrs. Annu Khanna** for the support, valuable suggestions and guidance who made our project to reach at this level and also the management of Divya Gyan College for providing all the guidelines, reference books and workspace for the development of our project. The completion of any inter-disciplinary project depends upon co-operation, co- ordination and combined efforts of several sources of knowledge. I am highly thankful to our project internal guide whose valuable guidance helped us understand the project better.

I would also like to thanks all my friends who have directly or indirectly helped me in this project. Although there may be many who remain unacknowledged in this humble note of gratitude, there are none who remain unappreciated.

Nabin Gurung (TU Reg No: 6-2-751-18-2019)

# Table of Contents

# LIST OF TABLES

# LIST OF FIGURES

# CHAPTER 1: Introduction

## 1.1 Introduction

The Travel Guide App is an interactive platform designed to connect the people with different historical places, culture and different spot within the area. With a user-friendly interface and search capabilities, the app aims to provide with an easy and efficient experience in finding different place to roam around the area. Our app covers a place that is limited to a certain area. It allows the user to view the information of the places that they are visiting and can help to navigate to that place.

## 1.2 Problem Statement

Some of the problem that occurs in absence of Travel Guide app are:

- Keep information up-to-date to provide accurate details on attractions and events, ensuring users have the latest and most reliable information for their travels.
- User can face difficulties to navigate through unfamiliar areas without a proper guide or a map.
- Without a proper app, user may struggle to make informed decisions about where to go, what to see, and how to optimize their travel experiences.

## 1.3 Project Objective

The major objectives of our project include:

- To promote different cultural heritage, local area, and other different place of an area.
- To view to the information of the places and navigate between those places.
- To categories different places based on their main attraction feature like temple, park, historical places etc.

## 1.4 Project Scope and Limitation

### 1.4.1 Scope of the System:

- User can visit local places or unexplored places of the city.

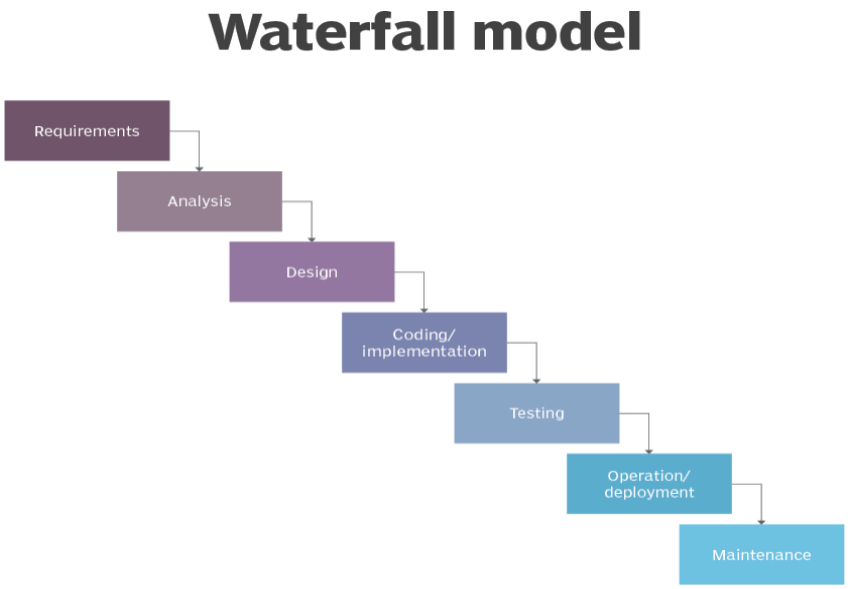
- User can save the place they want to visit later and download offline map from their initial place to their destination.
- It supports multi language to help the international user to navigate through new place and view information related to the place within their own language.

### 1.4.2 Limitation of the System:

- The app's functionality may be constrained by user devices with poor internet connectivity, affecting real-time information.
- The accuracy of the app may be inaccuracies or changes in local information which may affect the user experiences.

## 1.5 Development Methodology

The framework we will be using for developing this project is waterfall model. The waterfall methodology is a project management approach that emphasizes a linear progression from beginning to end a project. Waterfall model was used since the requirements of the system were clear and confined. There was no chance of adding new functionalities in the system.




(Src:https://cdn.ttgtmedia.com/rms/onlineimages/whatis-waterfall_model.png (accessed:15-July-2023))

**Figure 1.1 Waterfall Model**

- **Requirement Gathering and analysis –** All possible requirement of the Travel Guide App to be developed are captured in this phase. We collected information about the UI frames which would be suitable for our app and also gathered information about the algorithms like A* search algorithm. Etc.
- **System Design –** The requirement specifications for Travel Guide App from first phase are studied in this phase and the system design is prepared. We designed different diagrams to represent our system and we developed our mobile app with the help of VS code, flutter for frontend, and dart language.
- **Implementation –** With inputs from the system design, the system is implemented to start the app from backend in firebase. We make use of the UI according to the apps need and finally we make use of fragments and activity as per requirements.
- **Integration and Testing –** All the units developed in the implementation phase are integrated into a system after testing of each unit. We tested app using different data to login from admin and added places which are displayed when searched.
- **Deployment of system –** Once the functional and non-functional testing is done, our product is deployed for the user.
- **Maintenance –** There are some issues which come up Travel Guide App. Slow loading of image, bugs while clicking the button were maintained at this stage.

## 1.6 Report organization

This is the report organization of the Travel Guide App also includes charts/diagrams to illustrate the system architecture and design. Furthermore, it contains information regarding the tools and technologies used to build the system.

**Chapter 1: Introduction**

The first chapter entitled “Introduction” encompasses the basic of Travel Guide app. It describes what the system is made for, what is the problem due to the lack of the system, and the demand of the system. It also includes the objective of the system. In

addition, this chapter also covers the scope and limitations of the system with development methodology.

**Chapter 2: Background Study and Literature Reviews**

In this chapter, background information related to Travel Guide App is provided. The study of an existing system is also done and contrary to those system, studying various journals and reports literature review is also conducted.

**Chapter 3: System Analysis and Design**

As the name suggest the chapter deals with the analysis of a different component of the system and its design. Different software requirements i.e., functional and non-functional requirements and various feasibility studies are included in this section. In addition, data modeling, and data processing is also carried here. Nevertheless, the details of the algorithm used in this system are also disclosed here.

**Chapter 4: Implementation and Testing**

This part of the report describes different modules that the system is composed of and the tools used in the development of this system. Similarly, the implementation process and test results of those modules and the system as a whole are presented here.

**Chapter 5: Conclusion and Future Recommendations**

In the last chapter, the outcome of the entire project is summarized. Here, the lesson learned in the software development process is noted here. Similarly, recommendation and future enhancement are also mentioned which would be handy for those will to enhance the project.

# Chapter 2: Background Study and Literature review

## 2.1 Background Study

In our fast-paced world, individuals yearn for simplicity in their daily lives, particularly when it comes to discovering exciting places in specific locations. Traditional methods, such as guidebooks and word-of-mouth recommendations, often prove to be time- consuming and inefficient. Recognizing the importance of efficient search and sorting capabilities, the Travel Guide app is poised to revolutionize the travel experience. With a robust search engine, personalized filters, and interactive maps, users can effortlessly find diverse destinations that align with their preferences. The Travel Guide app is designed to be a user-friendly and indispensable companion, providing a seamless and enjoyable travel exploration experience for users of all ages.

## 2.2 Literature Review

At first the requirement analysis is done considering past researches and existing similar system in order to develop the system. Required data were gathered with the study of manuals. Then system is implemented. Due to increase in tourism and one of the important GDP, I've come to develop the following app Travel Guide App. There is a large body of literature review on tourism and some of the most relevant studies include:

- This study provides an overview of the different approaches to traveling. The study discusses the advantages and disadvantage of approaches to traveling and provides recommendation for selecting a travel solution.
- This study revies the use of impact of tourism in the country. The study use the benefits of travel app to provide proper navigation and information regarding the places.

**Literature Analysis:**

Literatures have been reviewed and critically analyzed to find what kinds of works have been suggested in past. The works helped in finding the shortcomings of past solutions and defining the aim and objectives of the project.

Smart Tourism Technologies (STTs) have garnered attention for transforming tourism experiences. This study evaluates tourists' usage of smart tourism technologies (STTs)

and their impact on travel experiences and revisit intentions. Despite STTs' increasing attention, limited research has explored tourists' experiences. Using a conceptual framework, the study examines STT usage among travelers to the top five US smart cities. It finds that informativeness, interactivity, and personalization significantly influence tourists' satisfaction and revisit intentions, moderated by perceived security/privacy levels[1]. The Internet of Things (IoT) plays a crucial role in reshaping the tourism industry with advancements in communication and information technologies. However, applying the Internet of Things for smart tourism poses challenges due to managing vast data and ensuring low-latency communication. This article outlines 5G and AI-empowered IoT systems tailored for smart tourism, emphasizing efficient data transmission and smart data processing. A case study on Point of Interest (POI) recommendation validates the superior performance of the proposed method, highlighting its efficiency and effectiveness in smart tourism applications[2]. This study explores tourist perceptions of smart tourism application (STA) attributes and their impact on destination image and behavioral intentions. Surveying 1484 international tourists in Hong Kong, it finds that attributes like smart information systems positively influence destination image and subsequent behavioral intentions. Information search moderates these relationships: less search time enhances the link between STAs and destination image, while more search time strengthens the connection between destination image and behavioral intention. The findings offer insights for enhancing destination competitiveness and sustainability[3].

**Observation:**

Similar apps have been reviewed to find the current trend in developing the app. Due to the boom in tourism sector as it is recovering at a fast pace with decline of the Covid-19 pandemic worldwide. As a result, the number of tourist arrival in Nepal in 2022 increase by 307%. According to 2022 report by world bank the tourism industry contribution about 6.7% to Nepal’s GDP while its total impact was US $2.2 billion.

**Brainstorming**

Brainstorming has been used for the creative and idea generation. The requirements for the system somewhat collected from the brainstorming method as well.

# Chapter 3: System Analysis and Design

## 3.1 System Analysis

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components of Travel Guide App. It is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem-solving technique that improves the system and ensure that all the components of the system work efficiently to accomplish their purpose.

### 3.1.1 Requirement Analysis

Requirement analysis is a process used to determine the needs and expectations of the Travel Guide App. Requirements must be quantifiable, relevant and detailed. The main purpose of requirement analysis is to describe the functional and non-functional requirement of the project. This document is intended to clarify the actual need of the system and verify its functionality with other member involved to design the system.

**i. Functional Requirements:**

A functional requirement (FR) is a description of the service that the Travel Guide app must offer. It is a statement of services the system should provide, how the system should react to particular inputs and how the system should behave in particular situations. The functional requirements of our app are:

- Configure search parameters
- Search places
- View detail of the places
- Save to favorites
- Add places

**Use Case Diagram**

Use case diagram are considered for high level requirement analysis of Travel Guide App. When the requirements of a system are analyzed, the functionalities are captured in use case. The purpose of use case diagram is to capture the dynamic aspect of a system. It is used to gather the requirements pf a system including internal and external influences. It is used to get an outside view of a system.

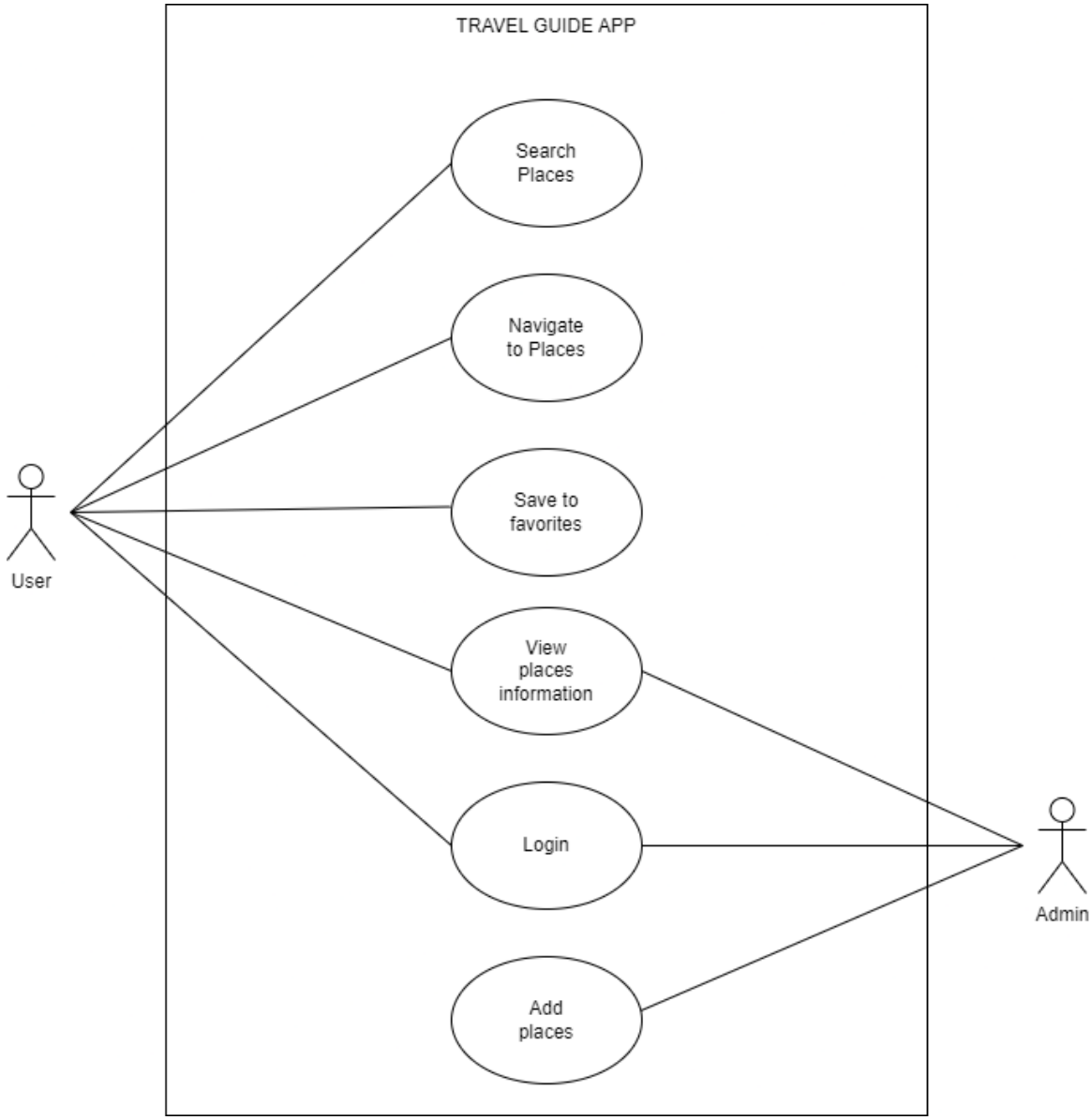



**Figure 3. 1: Use Case Diagram**

**Table 3. 1: UC-001 Search Places**

| | |
|---|---|
| **Use Case ID** | UC-001 |
| **Use Case Name** | Search Places |
| **Actors** | User |
| **Brief Description** | This use case describes the process by which users search and connect with different places within an area. The app aims to find places to explore for new people. |
| **Preconditions** | • The system is operational<br>• The user should search for different places. |
| **Normal Flow** | • The use case starts when the user login.<br>• The user can select the places available or search it.<br>• The user can view the information.<br>• The user can navigate if they want to go to the place.<br>• The use case ends successfully |
| **Alternate Flows** | The user didn't have a good connectivity. |

| | |
|---|---|
| **Post conditions** | A. Successful Completion<br>• The user has reached the location successfully.<br>• The system has received the place details.<br>B. Failure Conditions<br>• The system terminates the request.<br>• The user didn't search the place properly. |
| **Special Requirement** | • The user should have good connection and should be using the application.<br>• The user should see direction until it reaches the desired place. |

**Table 3. 2: UC-002 Save to Favorites**

| | |
|---|---|
| **Use Case ID** | UC-002 |
| **Use Case Name** | Save to Favorites |
| **Actors** | User |
| **Brief description** | This use case describes the process by which users search the places to favorites. |
| **Preconditions** | The system is operational.<br>The user should know about the places. |
| **Normal Flow** | The use case starts when the people save the places to favorites.<br>This helps to save the specific place along with its information so that they can easily access it. |
| **Alternate Flows** | The save favorites is not working.<br>The user has poor internet connection. |
| **Post conditions** | The user has successfully added the<br>place to the favorites which can be seen at list of save to favorites. |
| **Special Requirement** | The user should have good connection and should be using the application.<br>The user should see direction until it reaches the desired place. |

**Table 3. 3: UC-003 View Place Details**

| | |
|---|---|
| **Use Case ID** | UC-003 |
| **Use Case Name** | View Place Details |
| **Actors** | User |
| **Brief Description** | This use case describes the process by which users search and connect with different places. |
| **Preconditions** | The system is operational.<br>The user should know about the places. |
| **Normal Flow** | The use case starts when the people search places.<br>It shows the places based on categories and navigate to them. |
| **Alternate Flows** | The search place is unavailable.<br>The user doesn'thave good connectivity. |
| **Post conditions** | The user has to search place based on their categories and view their details. |
| **Special Requirement** | The user should have good connection and should be using the application.<br>The user should see direction until it reaches the desired place. |

**Table 3. 4: UC-004 View Places**

| | |
|---|---|
| **Use Case ID** | UC-004 |
| **Use Case Name** | View Places |
| **Actors** | User, Admin |
| **Brief Description** | This use case describes the process by which actor views the places in detailed manner. |
| **Preconditions** | The system is operational.<br>The actor should request or search for places. |
| **Normal Flow** | After finding places that the user what to visit they view their information and navigate through them. |
| **Alternate Flows** | The search place is unavailable.<br>The user doesn'thave good connectivity. |
| **Post conditions** | The actor successfully views the places and<br>its detail and its ways. |
| **Special Requirement** | The actors should have good connection and should be using the application.<br>The actors should see direction<br>until it reaches the desired place. |

**Table 3. 5: UC-005 Login**

| | |
|---|---|
| **Use Case ID** | UC-005 |
| **Use Case Name** | Login |
| **Actors** | User, Admin |
| **Brief Description** | The use case describes the process by which the actors can connect with the app. |
| **Preconditions** | The system is operational.<br>The actor has access of username and password. |
| **Normal Flow** | The use case starts when the actors have access to username and password from which the actors can successfully login to<br>the app. |
| **Alternate Flow** | The actor login to the system with wrong username or password.<br>The user didn't connect internet. |
| **Post conditions** | The admin enters the correct username and password, where they can add the places.<br>The user login and can view the<br>places, its detail and navigate to them. |
| **Special Requirements** | The actors should have good connection and should be using the application.<br>The actors should see direction until it reaches the desired place. |

**Table 3. 6: UC-00g Add Places**

| | |
|---|---|
| **Use Case ID** | UC-006 |
| **Use Case Name** | Add Places |
| **Actors** | Admin |
| **Brief Description** | The use case describes the process by which admin adds the place to the app. |
| **Preconditions** | The system is operational.<br>The actor has access of username and password. |
| **Normal Flow** | The use case starts when the admin adds the<br>place. |
| **Alternate Flows** | The search place is unavailable.<br>The user doesn'thave good connectivity. |
| **Post conditions** | The admin successfully. The place is shown in the app and can be easily access in search. |
| **Special Requirement** | The actors should have good connection and should be using the application.<br>The actors should see direction until it reaches the desired place. |

### ii. Non-functional Requirements

The performance of the Travel Guide App will highly depend on the performance of the hardware and software components of the installed devices. There are the requirements that specify criteria that can be used to judge the operation of a system, rather than specific behaviors. The non-functional requirements elaborate a performance characteristic of the system. Responses to view information shall take no longer than a few second on the screen.

- **Layman Understandable Ui**

Our app offers user friendly user interface beginners can easily our app without any difficulty.

- **Easy configurable and installable:**

Travel Guide app can be easily installed from play store and is very easy to configure.

- **Security Requirements**

The system shall provide access to the only authorized user. The admin shall access all the information ‘s.

**Software Quality Attributes**

From users’ perspective there are following software quality attributes:

- Availability: The system shall be available globally.
- Correctness: It shall reach to the correct destination as per the search made by user.
- Maintainability: The admin shall maintain correct record of the user and their search history.
- Efficiency: It shall utilize processor capacity, disk space and memory efficiently.
- Usability: It shall be easy to use so that the user can interact with the system easily to do the needed work.

From the developer’s perspective there are following software quality attributes:

- Understandability: It shall be understandable easily.

- Testability: It shall be easy to test and find defects. If required it should be easy to divide into different modules for testing.
- Flexibility: It shall be able to add new features to the system and handle them conveniently.

### 3.1.2 Feasibility Analysis

The objective behind the feasibility study is to create the reasons for developing the Travel Guide app is that it is acceptable to user and flexible to change. A feasibility study is an analysis that takes all of a project's relevant factors into account including economic, technical, legal, and scheduling considerations.

**i. Technical Feasibility:**

In this, one has to test whether the system can be developed using existing technology or not. We have use flutter, dart as front-end and firebase as backend. The system is more practical and mature.

**ii. Economic Feasibility:**

In existing system, the Travel Guide app the only cost required is for server and play store cost and maybe api key for google map. So, this is economically feasible.

**iii. Operational Feasibility:**

This system finds places based on user categories which result in a more efficient and satisfactory search experience narrow down the place to visit and data maintenance is easier. Therefore, this project is operationally feasible.

**iv. Schedule Feasibility:**

This criteria model is parallel goes with the scheduled time. Ability to finish the project on low time is measure under this model. The Travel App has been completed on the scheduled time where more priority is given to customer satisfaction.

| S. N | TASKS | 1st week | 1st week - 3rd week | 3rd week- 7th week | 7th week- 9th week | 9th week- 10th week | 10th week- 11th week |
|---|---|---|---|---|---|---|---|
| 1. | Preliminary Investigation | | | | | | |
| 2. | Problem and Requirement Analysis | | | | | | |
| 3. | Project Design | | | | | | |
| 4. | Project Development | | | | | | |
| 5. | Testing | | | | | | |
| 6. | Implementation | | | | | | |
| 7. | Documentation | | | | | | |

**Figure 3. 2: Gantt chart of Travel Guide App**

### 3.1.3 Object Modeling (Class Diagram and Object Diagram)

**Class Diagram:**

A class diagram in the Unified Modeling Language is a type of static structure diagram that describes the structure of as system by showing the system's classes, their attributes, operations, and the relationships among objects. The purpose of this diagram is to introduce some common terms for "Travel Guide". User, Places, Places Details, Search Parameters, Search, Favorites and relationship between them.

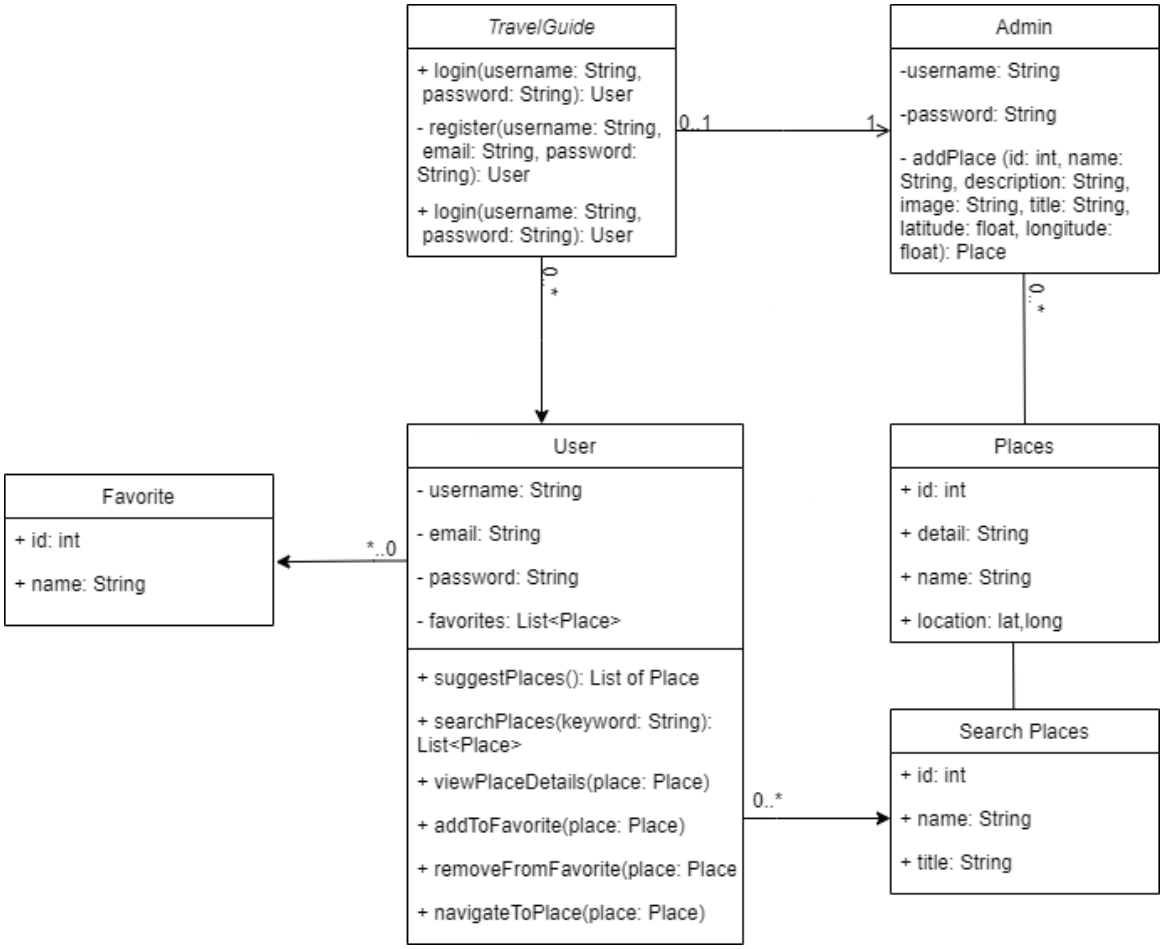



***Figure 3. 3: Class Diagram***

**Object Diagram:**

Object diagram of Travel Guide app shows the instance of classes and their relationship with each other. Its shows the view of system state at specific point. It includes the details and parameters used in our app while creating user, places, their details and locations.

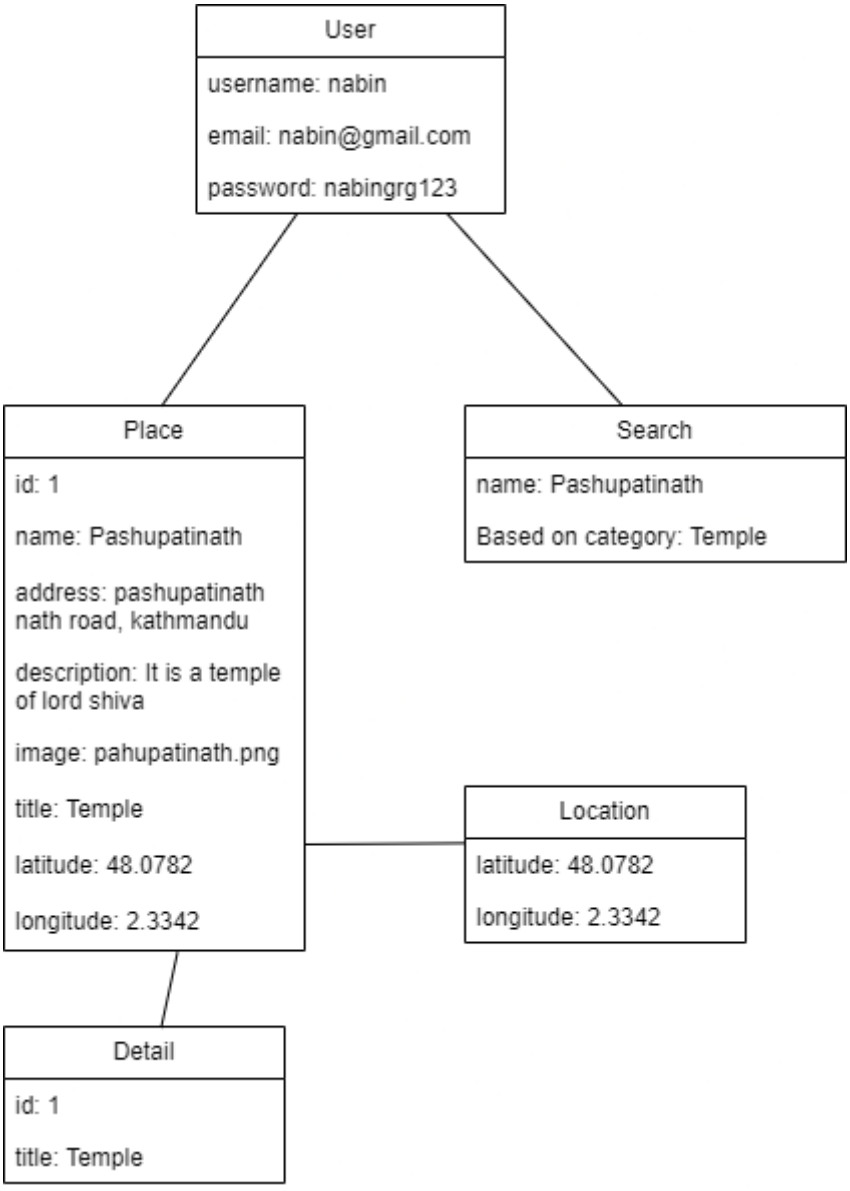



**Figure 3. 4: Object Diagram**

**Sequence Diagram:**

A sequence diagram represents the object collaboration and is used to define event sequences between objects for a certain outcome. The sequence diagram of this system is drawn as shown below:

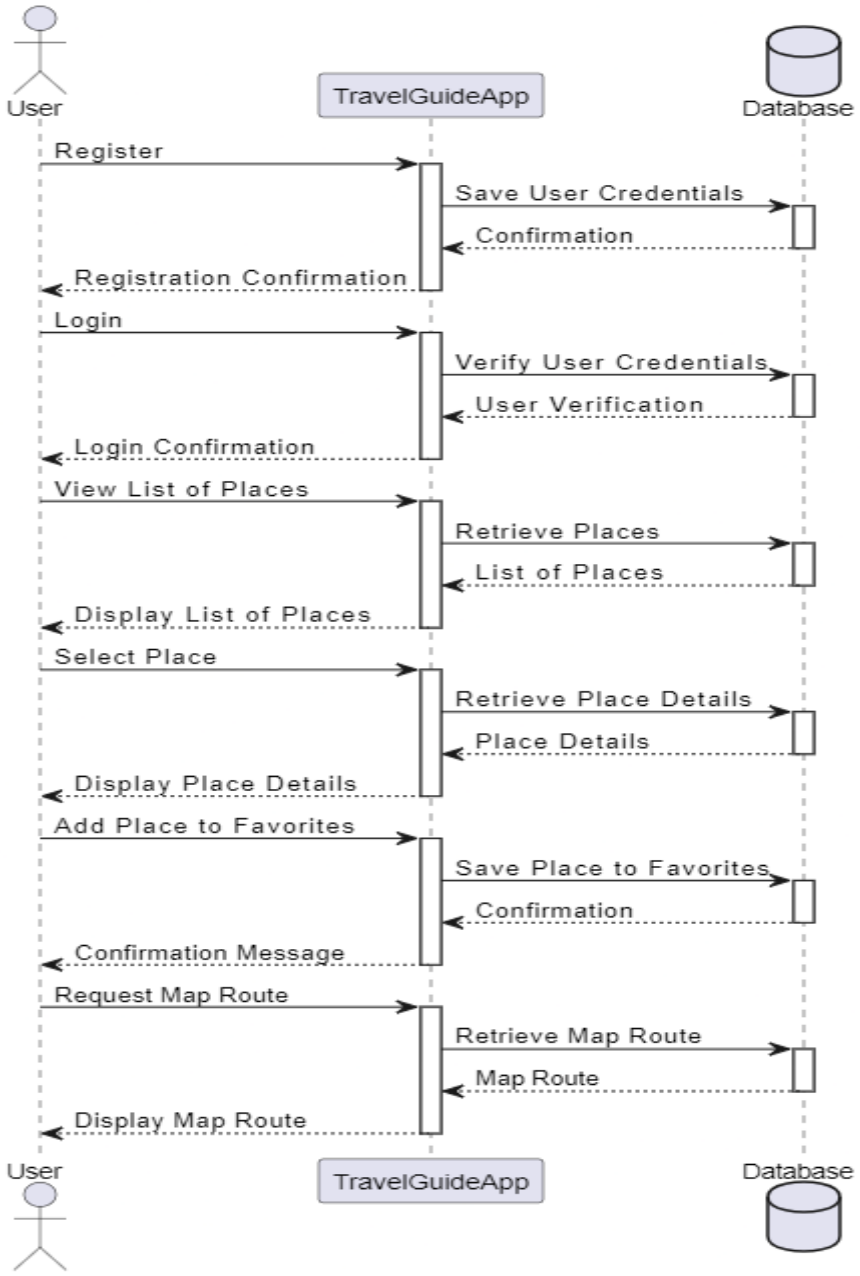



**Figure 3. 5: Sequence Diagram**

### 3.1.4 Process Modeling using Activity Diagram

Like a flow chart, individual steps of the process are drawn out so there is an end-to-end overview of the tasks in the process within the context of the places to travel. As soon as the user enters the application they search for the place or view the place that is display. They can also add to favorites so that they can login again and view their favorite place. They can also describe the steps in a use case diagram.

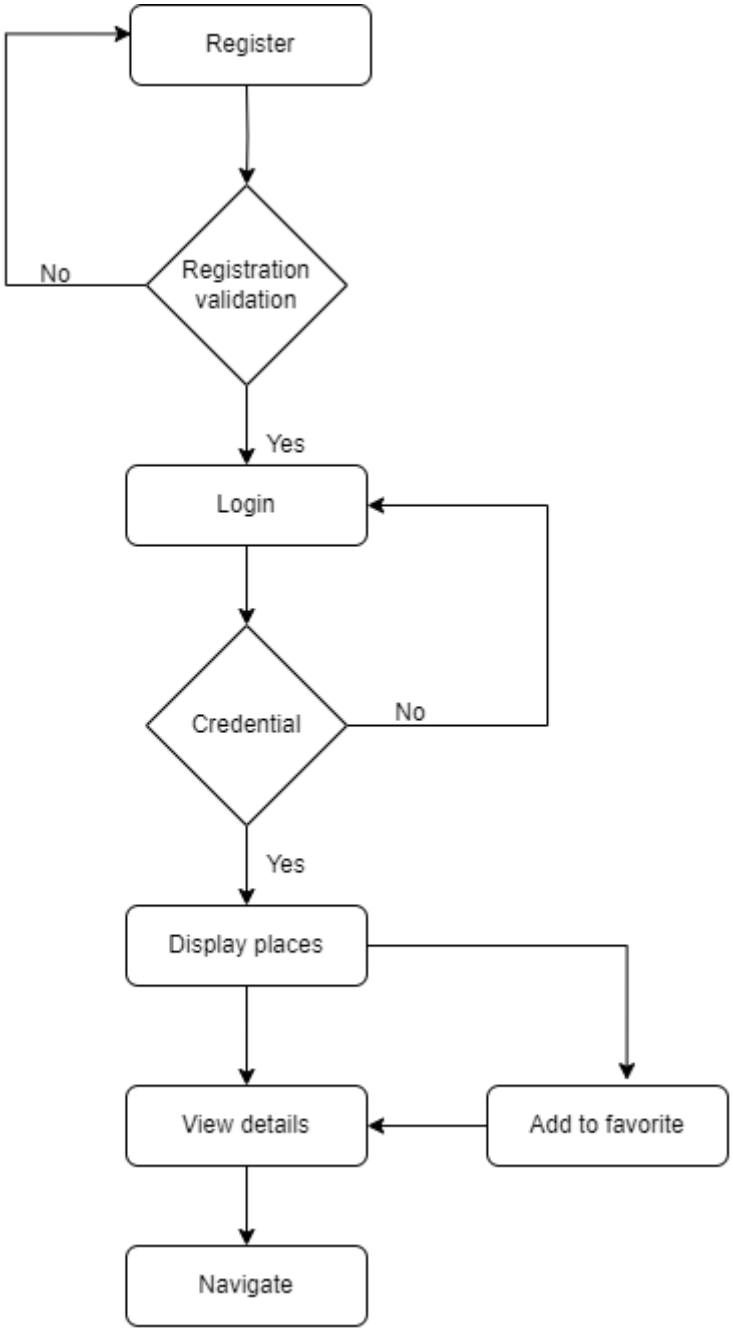



**Figure 3. 6: Activity Diagram**

### 3.1.5 State Diagrams of Travel Guide APP

State diagram shows all the possible behavioral states of Travel Guide App component may exhibit and the various state changes it's predicted to undergo over the course of its operation.

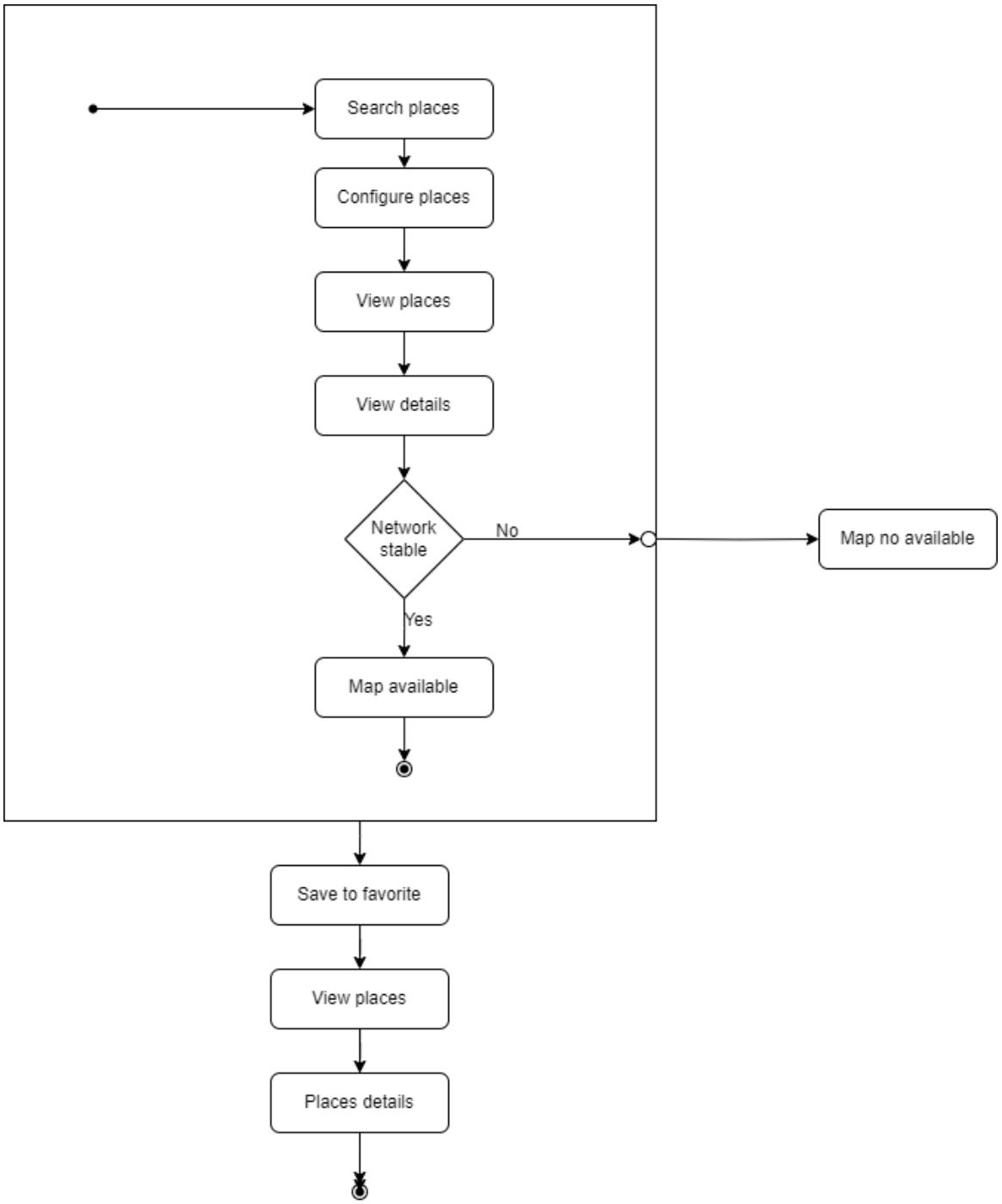



**Figure 3. 7: State Diagram**

## 3.2 System Design

### 3.2.1 Component Diagram:

Component diagrams are often drawn to help model implementation details and double- check that every aspect of the system's required function is covered by planned development.

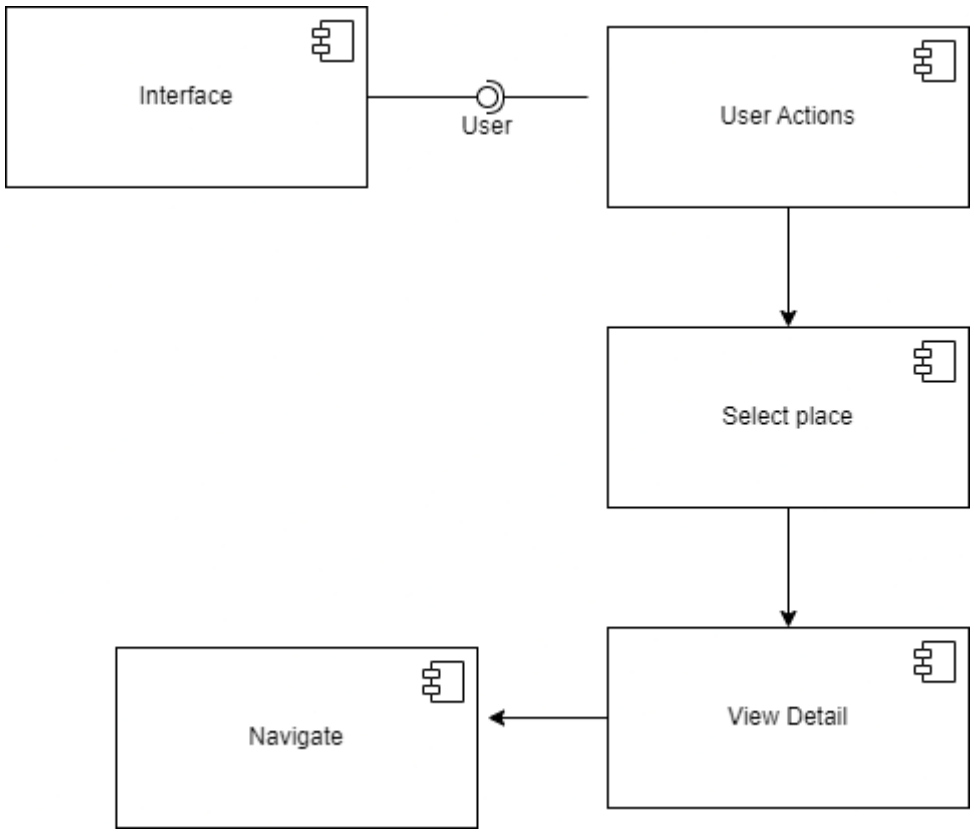



**Figure 3. 8: Component Diagram**

### 3.2.2 Deployment Diagram:

Deployment diagrams model the physical architecture of a system. Deployment diagrams show the relationships between the software and hardware components in the system and the physical distribution of the processing.

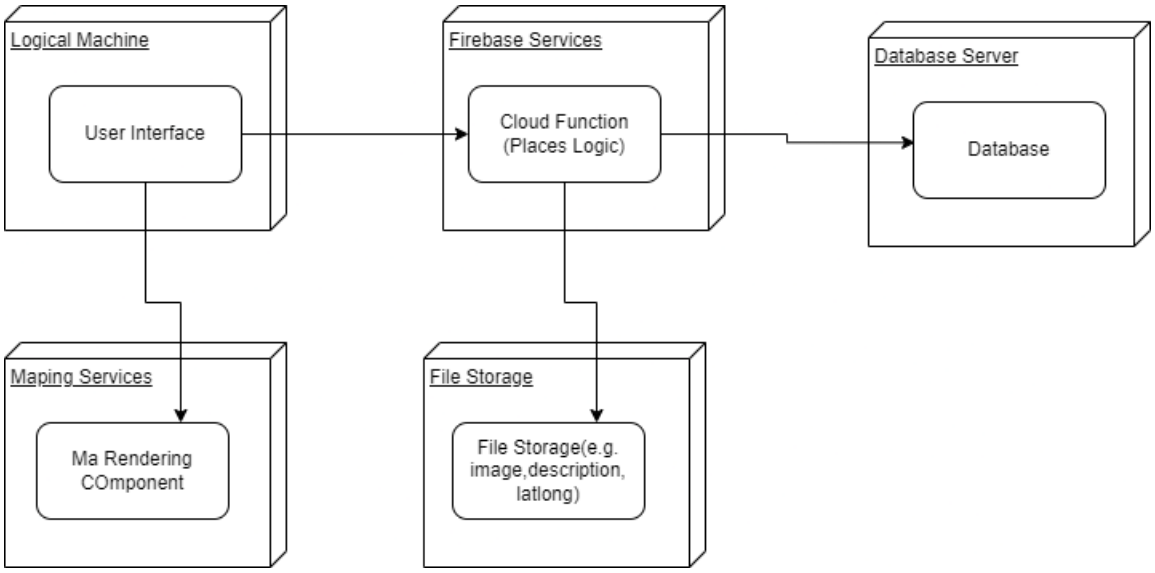



**Figure 3. 9: Deployment Diagram**

## 3.3 Algorithms

The Travel Guide app utilizes a combination of algorithms approaches to efficiently organize and present places based on user preferences. The algorithm plays a crucial role in optimizing search results, Map Functionality.

i. **A* Algorithm (A-Star Algorithm):** Tis algorithm help to route planning.

ii. **CRUD operations:** This algorithm helps to perform database operations.

iii. **Text Search:** This algorithm utilizes text search.

The importance of algorithms in organizing and presenting place within an area. Algorithms enable to process vast amounts of data swiftly and accurately, providing users with tailored search results. They enhance the user experience by reducing time and effort required to find the places that align with the user's specific requirement, resulting in a more efficient and satisfactory experience.

# Chapter 4: Implementation and Testing

## 4.1: Implementation

In this stage, physical system specifications are converted into working and reliable solution. This is a stage where the system is developed. On the receiving the system design documents, the work is divided in modules/units and actual coding is started. It is flowed by testing. Several tools are used in this phase if software development.

### 4.1.1 Tools Used

**Table 4. 1: Tools Used**

| Tools | Purpose |
|---|---|
| VS Code | To write and compile code |
| Firebase | For Backed-as-a Service (BaaS) |
| Draw.io | For making diagram |
| Figma | For making wireframes |

### 4.1.2 Programming Language used

**Table 4. 2: Language Used**

| Language | Purpose |
|---|---|
| Dart | Frontend |

### 4.1.3 Implementing Details of Modules

The major functional modules of Travel Guide app and their implementation are as below:

- **Login module**: This module is available for admin and user. In this module they both provide email and password.
- **Add place module**: This module is also handled by admin. Admin adds the places so that the user can view it.
- **Search place module**: User can easily search based on text or categories to limit the place within the same categories.
- **View details module**: User can view the details of the place.
- **Add favorites module**: User can add favorite to the place that they like to easily access them.
- **Navigate module**: User can navigate to the place that they like with the help of map.

## 4.2 Testing

### 4.2.1 Test Case for Unit Testing

The testing for Travel Guide app is done by testing the unit and system modules.

**Table 4. 3: Test Case for User Login**

| ID | Test Case Description | Text data | Expected result | Actual result | Test Result |
|---|---|---|---|---|---|
| 1 | Input Valid Email and password for admin | Email: admin@gmail.com Password: admin123 | Login to the system | Logged in successfully . | Pass |

| | | | | | |
|---|---|---|---|---|---|
| 2 | User enters correct Email and wrong password | Email: admin@gmail.com Password: admin12 | Incorrect password | Incorrect Password | Pass |
| 3. | User enters wrong Email and correct password | Email: admn@gmail.com Password: admin123 | Incorrect Username | Incorrect Username | Pass |

**Table 4. 4: Test Case for Add Place**

| Project Name: Connect Me | | | | | |
|---|---|---|---|---|---|
| Test Case | | | | | |
| Test Case ID: TC_002 | | | Test Designed by: Nabin Gurung | | |
| Test Priority (Low/Medium/High): Medium | | | Test Designed date: 15/07/2023 | | |
| Module Name: Add Places | | | Test Executed by: Nabin Gurung | | |
| Test Title: Verify to add Places | | | Test Execution date: 15/07/2023 | | |
| Description: Test Travel Guide app to add places | | | | | |
| Pre-conditions: Admin should login to Travel Guide app.<br>Admin have to provide all the necessary details to add places.<br>. | | | | | |
| Dependencies: | | | | | |
| Step | Test Steps | Test Data | Expected Result | Actual Result | Status (Pass/Fail) |

| | | | | | |
|---|---|---|---|---|---|
| 1 | Navigate to add place | | Add places page should be open | As Expected, i.e., Admin is navigated to add place. | Pass |
| 2 | Provide details for the place. | | Admin should be able to fill details new place areas. | Admin is able to fill details of the place. | Pass |
| 3. | Click on Save Button | Click | Admin should be able to add new place | As expected, Admin was able to add new place. | Pass |
| Post-conditions: Admin has added new places successfully. The Place details are loaded into the database. | | | | | |

### 4.2.2 Test Cases for System Testing

It is tested at the final stage as a whole by combining all the product modules after integration testing. The primary aim of conducting this test is that it must fulfill the user requirement specification. This testing does not depend on system implementations as well.

**Table 4. 5: Test Case for System Testing**

| ID | Test Case Description | Text data | Expected result | Actual result |
|---|---|---|---|---|
| 1 | Verify search place | Select place | View Detail, map | Show the details of the place and map button to navigate |
| 2 | Verify details of searched place | Select one place and view its details | Details of place | The details of place are displayed |
| 3. | Verify Add to favorites | Select place to favorites | Saved in favorites | Saved place in favorites list |

# Chapter 5: Conclusion and Future Recommendations

## 5.1 Outcome

Travel Guide app simplifies place discovery, providing a personalized search experience, enabling efficient decision-making, and fostering seamless connectivity. It also described the key features and functionality of the app, such as advanced search, filtering options, sorting capabilities, and detailed of places. These algorithms contribute to the efficient organization and presentation of places based on user preferences, ultimately improving the user experience.

## 5.2 Conclusion

In conclusion, the development and implementation of the Travel Guide app presents an exciting opportunity to revolutionize the way users search and explore different places in their local area, providing an efficient and user-friendly experience, making the app a valuable tool for users and exploring new places.

## 5.3 Future Recommendations

According to scope of the program the project is developed as mobile based applications. Because of time constraint we may have limitation which should be consideration in, but in the feature. I believe that this system should be operational by adding some functionality that are not included in the proposed system.

I want to recommend this project can be expanded and automated with additional functionalities by integrating with many technologies and recommend being included the following functionality:

- Enhance User Interface by adding more user interactive features.
- The system has to include near me map in order to support illustrate people to use the system easily.

# References

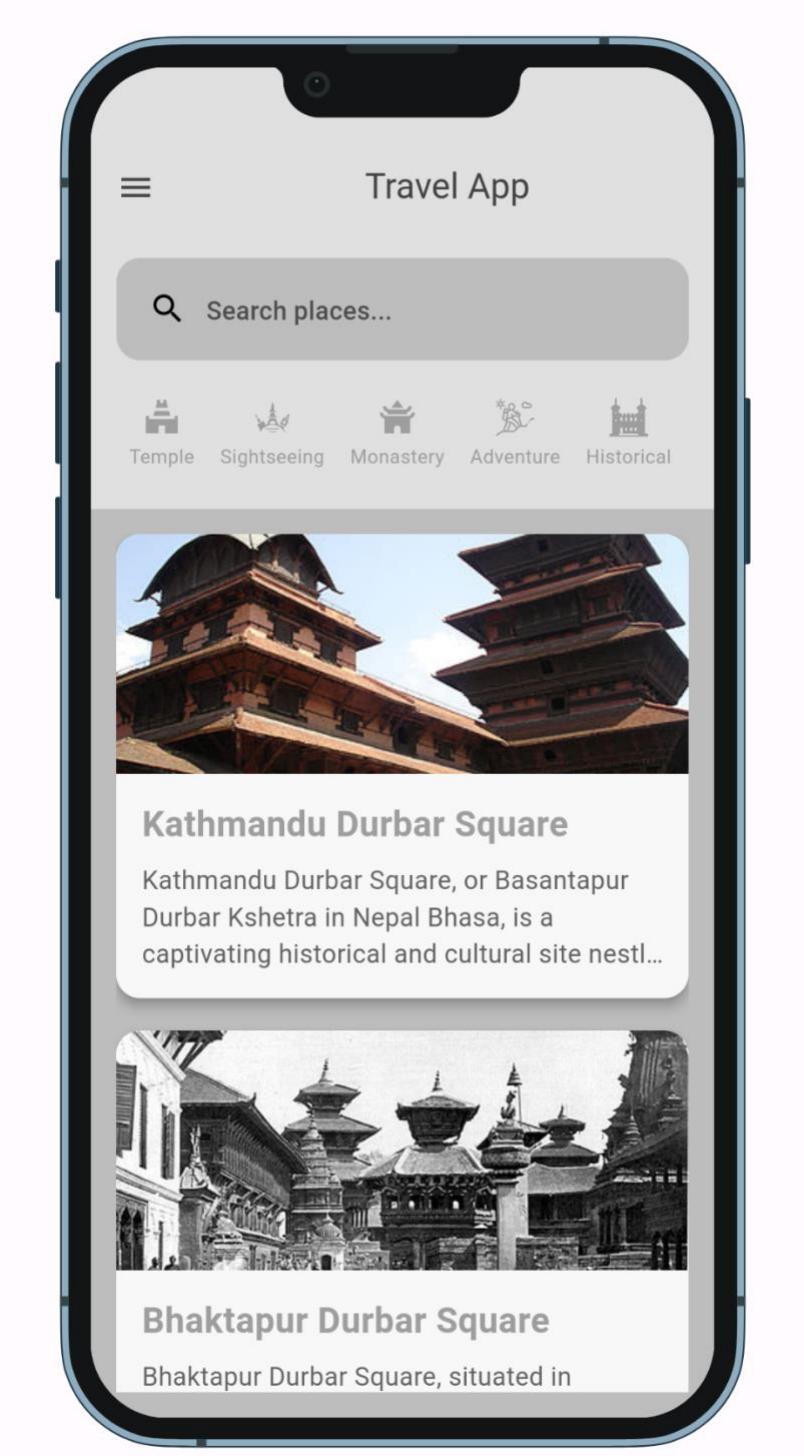
[1] Jeong, M., & Shin, H. H. (2020). Tourists' Experiences with Smart Tourism Technology at Smart Destinations and Their Behavior Intentions. Journal of Travel Research, 59(8), 1464-1477. https://doi.org/10.1177/0047287519883034

[2] W. Wang et al., "Realizing the Potential of the Internet of Things for Smart Tourism with 5G and AI," in IEEE Network, vol. 34, no. 6, pp. 295-301, November/December 2020, doi: 10.1109/MNET.011.2000250.

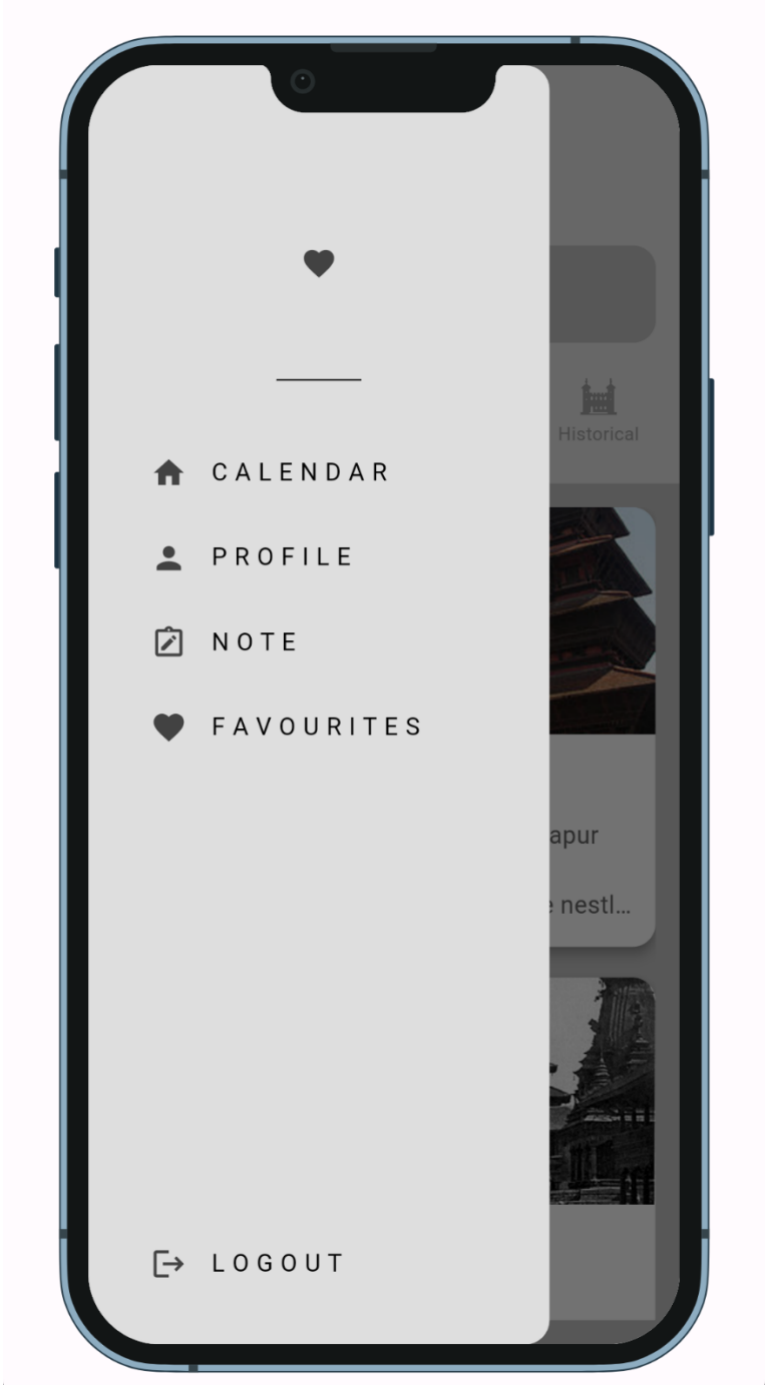
[3] Y. S. Rawal, R. Sinha, S. K. Mukherjee, and D. Batabyal, *Exploring culture and heritage through experience tourism*. IGI Global, 2023.

# APPENDICES

1. **Main Screen**




**2. Menu Screen**


CALENDAR
PROFILE
NOTE
FAVOURITES
LOGOUT
Historical
apur
nestl...

3. Category Screen

4. Place details