Software Requirements Specification

for

City Guide App

Version 1

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Table of Contents

Table of Figures

Name	Date	Reason For Changes	Version
Jillienne N	10/14/2023	Initial Revision	–
Kevin Lin	10/15/2023	Added Production Perspective Added BDD Added Use Case Diagram Added	01

1   Introduction

1.1 Purpose

The purpose of this Software Requirement Specification (SRS) is to define the broad set of features, functionalities, and overall description for the development of the City Guide App. This app aims to provide a user-friendly experience for all. The SRS serves as a detailed blueprint to guide the development team in creating this app to ensure that it meets the diverse needs of user, enhances their experience of city exploration and tourism.

1.2 Scope

This document specifies the requirements for the following capabilities:
1. Curated Event Selection
2. Comprehensive Trip Planning
3. Lodging Management
4. Budget/Expense Management
5. Event Convinience
6. Efficient Navigation

1.3 Definitions

CGA: City Guide App
BDD: Block Definition Diagram
IA: Information Assurance
IP: Internet Protocol
SRS: Software Requirements Specification
STIGS: Security Technical Implementation Guides
TCP: Transmission Control Protocol
UML: Unified Modeling Language
V&V: Verification and Validation

1.5 Overview

This document outlines the specifications for the development of a City Guide App, adhering to the guidelines presented in IEEE Std 830-1998 IEEE Recommended Practice for Software Specifications. The primary purpose of the City Guide App is to provide users with a comprehensive and intuitive platform for exploring and navigating cities.

2   Overall Description

2.1 Production Perspective

This document outlines the universal usability of the City Guide App, emphasizing its adaptability for solo users in various scenarios. It provides guidance on how users can utilize the app independently and offers troubleshooting steps for resolving issues. Additionally, it offers customer service support when necessary. The City Guide App is designed to function effectively in any location. The document also details the app's features, some of which are hosted by a distinct system. The system's structure is visually shown in Figure 1 through a Unified Modeling Language (UML) Block Definition Diagram (BDD).
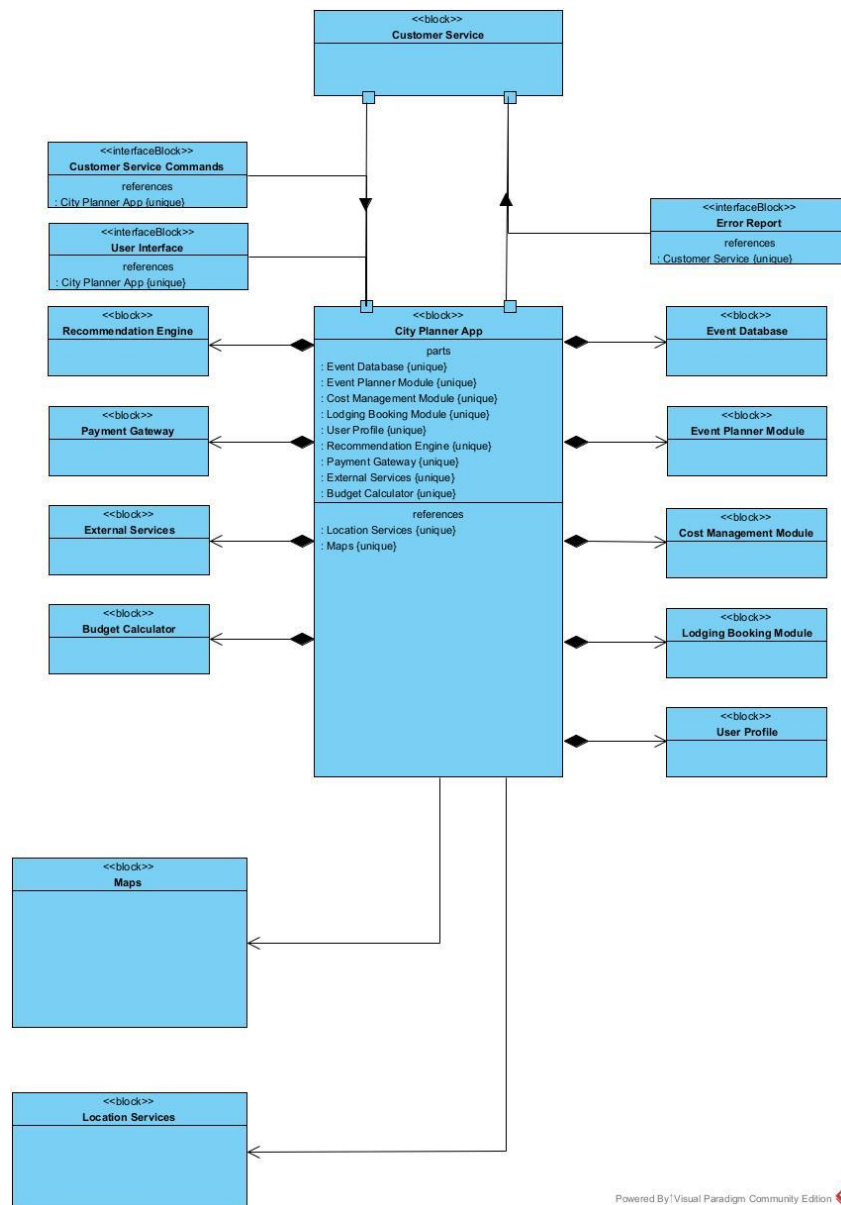

Figure 1 System Block Diagram

2.2 Product Functions

The following use case diagram depicts the users of the system, and the intended way in which they will interact with the system.
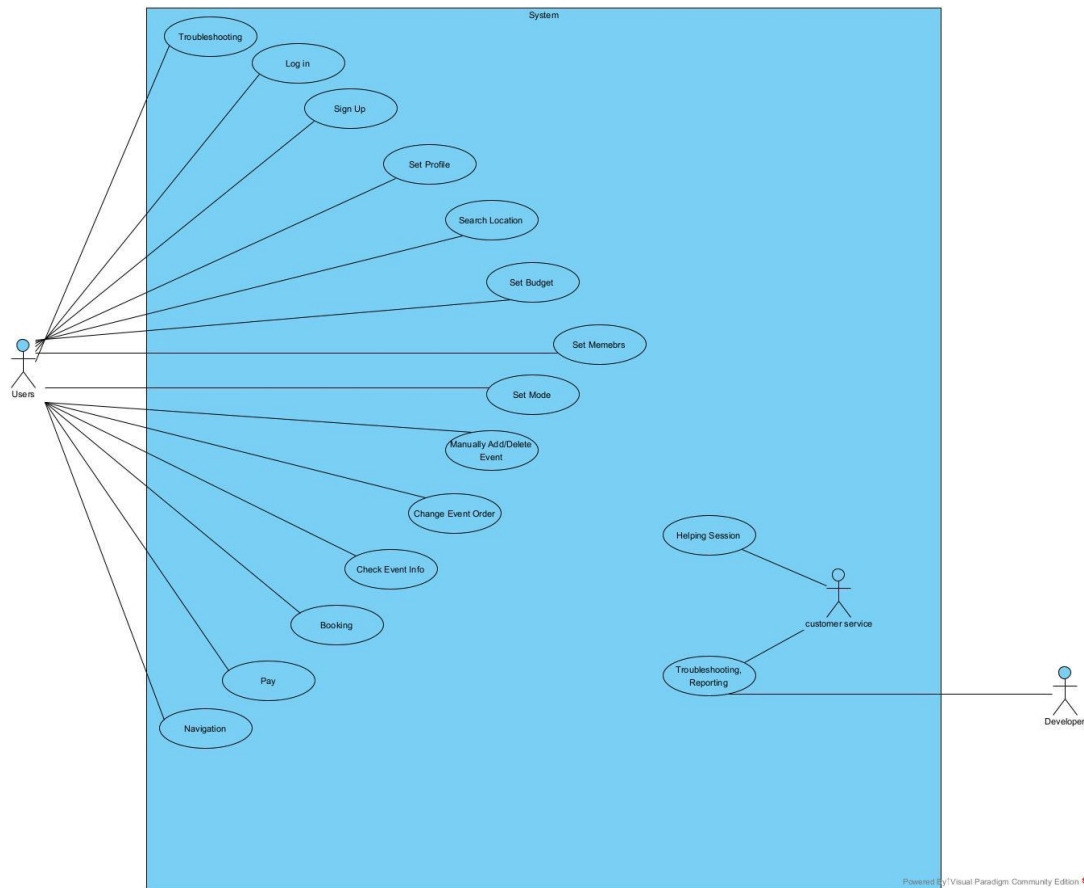
Figure 2 City Guide App Use Cases

2.3 Use Case Descriptions

2.3.1 Troubleshooting

GENERAL CHARACTERISTICS	
Intent	To address and resolve issues or problems that users encounter while using the City Planner App
Scope	Troubleshooting to Customer Service
Primary Actor	The app user.
Secondary Actors	Customer support or technical support team.

Preconditions	The user has encountered a problem or issue while using the City Planner App.
Assumptions	The user has access to an internet connection or a means to contact support.
Trigger	The user identifies a problem or encounters an error within the app.
Success Post Condition	The user's issue or problem is successfully resolved, and they can continue using the app without interruptions.
Failed Post Condition	The issue remains unresolved, or the user is dissatisfied with the resolution process.

2.3.2 Log in

GENERAL CHARACTERISTICS	
Intent	To allow registered users to access their accounts within the City Planner App by providing their credentials.
Scope	This use case covers the process of user authentication and account access.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has already registered an account with the City Planner App.
Assumptions	The user has a valid username and password.
Trigger	The user attempts to access their account by clicking on the login button.
Success Post Condition	The user successfully logs in, gaining access to their account and app features.
Failed Post Condition	The user is unable to log in due to incorrect credentials, and they may receive an error message.

2.3.3 Sign up

GENERAL CHARACTERISTICS	
Intent	To allow users to create a new account in the app, providing

Software Requirements Specification   7
City Planner App
Version 1   October 14, 2023

	necessary information to get started.
Scope	This use case covers the registration process for new users of the app.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user is not already registered with an account.
Assumptions	The user has a valid email address or phone number to use for registration.
Trigger	The user selects the option to sign up for a new account within the app, or after failing to log in.
Success Post Condition	The user's registration information is successfully submitted, and they are granted access to the app's features.
Failed Post Condition	The registration process fails due to an error (e.g., invalid email or password), and the user is not registered. The user may receive an error message with instructions for correction.

2.3.4 Set Profile

GENERAL CHARACTERISTICS	
Intent	To allow users to set up or update their personal profile information.
Scope	This use case covers the process of collecting and managing user profile information, such as name, contact details, and preferences.
Primary Actor	User.
Secondary Actors	None.
Preconditions	User successfully login to account.
Assumptions	The user may have the option to edit their profile at any time.
Trigger	The user initiates the profile setup or modification process through the app's user interface.
Success Post Condition	The user's profile information is successfully updated, and they can proceed to use the app with their updated details.
Failed Post Condition	The profile information is not updated successfully, and the user may

	receive an error message or encounter issues in using the app due to incomplete or incorrect profile information.

Sunny Day Scenario

Step	Action
Start	The scenario begins when the user arrives at the profile setup page
1	The user initiates the profile setup process through the apps user interface
2	The app prompts the user to update their profile information
3	The user enters the required information accurately
4	The app then validates that the information entered meets the necessary criteria
5	Upon successful validation, the user's profile information is updated
6	The app displays a confirmation message to the user, indicating that the profile has been successfully set up or updated
7	The user can now proceed to use the app with their updated details.
End	The scenario ends with the user having a successfully updated profile, ready to use the app with the latest information imputed.

Rainy Day Scenario

Step	Action
Start	The scenario beings with a failure to set up or update profile
1	User enters incomplete or incorrect information
2	The app detects validation errors and displays an error message
3	User attempts corrections but continues to encounter issues
4	After multiple failed attempts, the app restricts the user from completing the profile setup
5	User receives a final error message and cannot proceed until information is corrected
End	The scenario ends with the user being unable to setup or update their profile due to persistent validation errors, requiring corrections before proceeding

2.3.5 Search Location

GENERAL CHARACTERISTICS	
Intent	To allow users to search for a specific location or destination.
Scope	This use case covers the process of users searching for locations to plan events or trips.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged in, and the app is in a state where location search is possible.
Assumptions	The app has access to a location database or service.
Trigger	The user initiates a search by entering a specific location or destination.
Success Post Condition	The app displays search results that match the user's query, allowing the user to select a location for event planning.
Failed Post Condition	No matching locations are found, or there is an error in the search process, in which case an error message is displayed to the user.

2.3.6 Set Budget

GENERAL CHARACTERISTICS	
Intent	To allow users to define and set a budget for their trip.
Scope	This use case covers the process of setting a financial limit for an upcoming trip or event within the app.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into app, and selected the location which found in Search Location Use Case
Assumptions	The user has a clear idea of their desired budget for the trip.
Trigger	The user selected the location which was found in the Search Location Use Case.
Success Post Condition	The user has successfully set a budget for their trip, and the app will provide cost estimates and recommendations based on this budget.

Failed Post Condition	The user may not receive accurate cost estimates and recommendations if the budget setting process fails.

Sunny Day Scenario

Step	Action
Start	The scenario starts with the user having successfully logged into the app and selected the location through the Search Location Use Case
1	The user initiates the Set Budget process within the app
2	The app prompts the user to enter their desired budget for the trip
3	The user provided a clear and accurate budget for the upcoming trip
4	The app confirms the successful setting of the budget
5	The user receives cost estimates and recommendations tailored to the set budget
6	The user is now equipped with accurate financial information to plan and enjoy their trip effectively
End	The scenario ends with the user successfully setting a budget and receiving a cost estimate and recommendations for their trip

Rainy Day Scenario

Step	Action
Start	The scenario begins with setting a budget
1	The user initiates the Set Budget process within the app
2	The app prompts the user to enter their desired budget for the trip
3	Due to technical issues or user input errors, the app fails to accept the budget information
4	The app displays an error message, indicating the problem with the process
5	The user attempts to resubmit, but continues to encounter issues
6	After multiple attempts, the app restricts the user from completing this process
7	The user receives a final error message and the app cannot provide accurate cost estimates and recommendations

8	The user may need to retry the budget-setting process later or contact support for assistance
End	The scenario ends with the user experiencing difficulties in setting a budget, leading to the app's inability to provide accurate cost estimates and recommendations for their trip

2.3.7 Set Members

GENERAL CHARACTERISTICS	
Intent	To allow the user to specify the number of members or participants for a travel event.
Scope	This use case focuses on the process of defining the number of individuals who will be participating in a planned event.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into app, and selected the location which found in Search Location Use Case
Assumptions	The user knows how many members or participants will be involved in the event, and the app provides an input field or interface for specifying this information.
Trigger	The user selected the location which was found in the Search Location Use Case.
Success Post Condition	The user has successfully set the number of members for the event, and this information is saved within the event details.
Failed Post Condition	The user fails to set the number of members due to an error in the app's interface or other technical issues.

2.3.8 Set Mode

GENERAL CHARACTERISTICS	
Intent	To allow the user to set the mode or purpose of their travel, such as family travel, traveling with friends, traveling alone, or adventure travel.
Scope	This use case covers the process of selecting and configuring the mode or travel style for a user's trip.

Primary Actor	Users
Secondary Actors	None.
Preconditions	The user has logged into the app, and selected the location which was found in the Search Location Use Case.
Assumptions	The user has a clear idea of the type of trip they want to plan
Trigger	The user selected the location which was found in the Search Location Use Case.
Success Post Condition	The user successfully sets their preferred travel mode, which allows the app to personalize recommendations and features accordingly.
Failed Post Condition	The user's selected travel mode is not saved or is set incorrectly, potentially leading to recommendations that do not align with their intended trip style.

Sunny Day Scenario

Step	Action
Start	This Scenario begins when the user has successfully logged into the app and selected the location using the Search Location Use Case.
1	The User is presented with a user-friendly interface to select their preferred travel mode, such as family travel, traveling with friends, solo travel, or adventure travel.
2	The User makes a selection, and the app validates and stores their chosen travel mode successfully.
3	The app personalizes recommendations, features, and content based on the selected travel mode, ensuring a more tailored and enjoyable trip planning experience.
4	The User proceeds to use the app with personalized recommendations for their chosen travel mode.
End	This Use Case ends when the user completes their trip planning, receives tailored recommendations, and confirms their travel mode selection.

Rainy Day Scenario

Step	Action
Start	This scenario begins with a failure to set the preferred travel mode.

1	The User attempts to select their preferred travel mode, but the app encounters an error due to an invalid selection or technical issues.
2	The app provides a clear and informative error message, guiding the User to select a valid travel mode or resolving any technical issues.
3	The User successfully selects a valid travel mode, and the app stores their choice.
End	This Use Case ends when the user completes their trip planning, receives personalized recommendations, and confirms their travel mode selection.

2.3.9 Manually Add/Delete Event

GENERAL CHARACTERISTICS	
Intent	To allow the user to manually add or delete events.
Scope	This use case covers the user's ability to add new events to their itinerary or remove existing events from their itinerary.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into the app, selected the location which was found in the Search Location Use Case, and passing all the setting use cases(Set Budget, Set Mode, and Set Members)
Assumptions	Event could be found.
Trigger	Users edit the list of events after all the event recommendations are generated.
Success Post Condition	If adding an event, the new event is successfully added to the user's itinerary. If deleting an event, the selected event is removed from the user's itinerary.
Failed Post Condition	If adding an event, the app may reject the addition due to issues such as schedule conflicts or unavailability of the event. If deleting an event, the app may fail to remove the event due to a technical issue or restrictions.

Sunny Day Scenario

Step	Action

Start	This Scenario begins when the user has successfully logged into the app, selected the location using the Search Location Use Case, and completed the setting use cases (Set Budget, Set Mode, and Set Members)
1	The User accesses their itinerary and selects the option to manually add an event.
2	The app provides a list of available events based on the user's preferences and the chosen location.
3	The User selects a desired event to add to their itinerary.
4	The app validates the addition, ensuring there are no schedule conflicts and the event is available during the selected time slot.
5	If the validation is successful, the selected event is added to the user's itinerary.
End	This Use Case ends when the user successfully adds the event to their itinerary.

Rainy Day Scenario

Step	Action
Start	This scenario begins after the user has logged into the app, selected the location using the Search Location Use Case, and completed the setting use cases (Set Budget, Set Mode, and Set Members).
1	The User attempts to manually add an event to their itinerary.
2	The app encounters an issue during the addition process, such as a schedule conflict or unavailability of the event during the selected time slot.
3	The app provides a clear error message, explaining the reason for the rejection.
4	The User may choose to modify their selection or cancel the addition.
End	This Use Case ends when the user completes their interaction, whether by successfully adding the event or canceling the addition due to an issue.

2.3.10 Change Event Order

GENERAL CHARACTERISTICS	
Intent	To allow users to rearrange the order of events in their trip plan
Scope	This use case covers the process of reordering events to better suit the user's preferences or schedule.

Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into the app, selected the location which was found in the Search Location Use Case, and passed all the setting use cases(Set Budget, Set Mode, and Set Members). Users rearrange the list of events after all the events are generated and finish editing.
Assumptions	The user has already created a trip plan with multiple events, and they wish to change the order in which these events occur.
Trigger	The user drags the event in the event list.
Success Post Condition	The user successfully changes the order of events in their trip plan, and the app reflects the updated event order.
Failed Post Condition	The user is unable to change the event order due to technical issues or misunderstandings in the app's user interface.

2.3.11 Check Event Info

GENERAL CHARACTERISTICS	
Intent	To allow the user to access detailed information about a specific event.
Scope	This use case focuses on retrieving event details for a particular event chosen by the user.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into the app, selected the location which was found in the Search Location Use Case, and passed all the setting use cases(Set Budget, Set Mode, and Set Members). Users rearrange the list of events after all the events are generated and finish editing.
Assumptions	The app has a database of event information, and the user's device has an active internet connection
Trigger	Users clicked the event shown as pins on the map.
Success Post Condition	The user is presented with comprehensive event details, including date, time, location, description, pricing, and any other relevant information.

Failed Post Condition	The user does not receive the requested event information, or the information is incomplete or inaccurate.

Sunny Day Scenario

Step	Action
Start	This Scenario begins when the user opens the City Guide App and navigates to the Event Information section.
1	The user clicks on an event pin shown on the map.
2	The system accesses its database to retrieve detailed information about the selected event.
3	The user views comprehensive details of the event including date, time, location, description, pricing, and any other relevant information.
4	The user can choose to mark the event as a favorite, share it, or proceed to book tickets or services related to the event.
End	This Use Case ends when the user navigates away or closes the Event Information section.

Rainy Day Scenario

Step	Action
Start	This scenario begins when the system cannot retrieve event data.
1	The user clicks on an event pin shown on the map.
2	The system attempts to access its database to retrieve detailed information about the selected event.
3	The system encounters an error retrieving data (maybe due to no internet connection or server issues).
4	The user is alerted with a message indicating the issue.
End	This Use Case ends with the user being prompted to try again later.

2.3.12 Booking

GENERAL CHARACTERISTICS

Intent	To allow users to book accommodations, tickets, or other services.
Scope	This use case covers the process of reserving and securing services or items for an event or trip using the app.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into the app, selected the location which was found in the Search Location Use Case, and passed all the setting use cases(Set Budget, Set Mode, and Set Members).
Assumptions	The user has access to an internet connection, and the service providers are available.
Trigger	The user passes the add and deleted Use Case, and the event requires booking.
Success Post Condition	The user successfully books the selected services or items for the event, and leads to the pay Use Case.
Failed Post Condition	The booking process fails, and the user does not receive a booking confirmation.

Sunny Day Scenario

Step	Action
Start	This Scenario begins when the user navigates to the Booking section of the City Guide App after selecting an event or service.
1	The user selects the desired accommodations, tickets, or services they wish to book.
2	The system interfaces with third-party service providers to fetch availability and pricing details.
3	The user views available options and confirms their selection.
4	The system initiates the payment process, allowing the user to choose from multiple payment options.
5	Upon successful transaction, the user receives an instant booking confirmation within the app.
End	This Use Case ends when the user receives a confirmation and navigates away or closes the Booking section.

Rainy Day Scenario

Step	Action
Start	This scenario begins when there is an issue with the booking process.
1	The user selects the desired accommodations, tickets, or services they wish to book.
2	The system attempts to interface with third-party service providers.
3	A problem arises, such as unavailability of the selected service, payment gateway issues, or server errors.
4	The user is alerted with a message indicating the specific issue.
End	This Use Case ends with the user being prompted to try again or choose different options.

2.3.13 Pay

GENERAL CHARACTERISTICS	
Intent	To enable users to make payments for their selected travel plans and associated expenses.
Scope	Purchasing tickets, booking accommodations, and managing other expenses.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into the app, selected the location which was found in the Search Location Use Case, and passed all the setting use cases(Set Budget, Set Mode, and Set Members). The user passes the add and deleted Use Case, and the event requires booking. As well as it needs to pass the Booking Use Case.
Assumptions	The user has sufficient funds or credit available for the selected payments. Payment methods, such as credit/debit cards, have been validated and are working correctly.
Trigger	The user confirms their intention to pay for the selected events or services. After passing the Booking Use Case.
Success Post Condition	The user's payment is processed successfully, and they receive confirmation of their bookings and expenses within the app.

Failed Post Condition	The payment fails due to technical issues, insufficient funds, or other reasons, and the user receives an error message or notification indicating the failure.

2.3.14 Navigation

GENERAL CHARACTERISTICS	
Intent	Help users plan and navigate to their chosen events and activities.
Scope	This use case encompasses all aspects related to guiding users within the app, including directions to events, booking locations, and viewing event details.
Primary Actor	User.
Secondary Actors	None.
Preconditions	The user has logged into the app, selected the location which was found in the Search Location Use Case, and passed all the setting use cases(Set Budget, Set Mode, and Set Members). Users rearrange the list of events after all the events are generated and finish editing.
Assumptions	The user has a compatible device with GPS capabilities.
Trigger	The user has a compatible device with GPS capabilities.
Success Post Condition	The user is provided with accurate navigation instructions and successfully reaches the selected event or location within the app.
Failed Post Condition	The user encounters issues with navigation, such as inaccurate directions or the inability to access navigation services.

2.3.15 Helping Session

GENERAL CHARACTERISTICS	
Intent	To provide assistance and guidance to users who require help or clarification while using the app.
Scope	This use case covers the process of offering support and assistance to app users to resolve queries, provide information, or guide them through specific tasks.
Primary Actor	Customer Service.
Secondary Actors	User.

Preconditions	The User passes the Troubleshooting Use Case.
Assumptions	The app support team is available and responsive to user inquiries.
Trigger	The user encounters a problem, has a question, or requests assistance within the app. Happened after troubleshooting Use Case.
Success Post Condition	The user's query or issue is satisfactorily addressed, and they can continue using the app with clarity and confidence.
Failed Post Condition	The user's query remains unresolved or inadequately addressed, potentially leading to user confusion.

2.3.16 Troubleshooting, and Reporting

| **GENERAL CHARACTERISTICS**	
Intent	To enable customer service to report issues or problems to developers.
Scope	This use case covers the process of reporting, tracking, and resolving technical or usability issues within the app, involving both users and customer service representatives.
Primary Actor	Customer Service.
Secondary Actors	Developer.
Preconditions	The app user has encountered a problem or issue while using the App, and failed to solve it by customer service.
Assumptions	There is a customer service team responsible for handling these reports.
Trigger	The user identifies a problem or encounters an error within the app and Customer service decides to report it. After Fail in the Helping session Use Case.
Success Post Condition	The issue is successfully reported to the customer service team. The customer service team logs and categorizes the issue. The development team receives the report, begins investigating, and works on a resolution.
Failed Post Condition	The issue is not reported or is reported incorrectly. The issue is not properly logged or categorized by customer service. The development team fails to acknowledge or address the issue.

3   Specific Requirements

3.3 System Features

3.3.1 The system software supports the Use Cases Described in Figure 2 City Guide App Use Cases.

3.3.1.1 Set Profile

3.3.1.1.1 Introduction/Purpose of Feature

This feature enables users to create, edit, or update their personal profiles within the City Guide App. The primary purpose is to empower users to customize their app experience by providing essential information such as name, contact details, and preferences.

3.3.1.1.2 Stimulus/Response Sequence
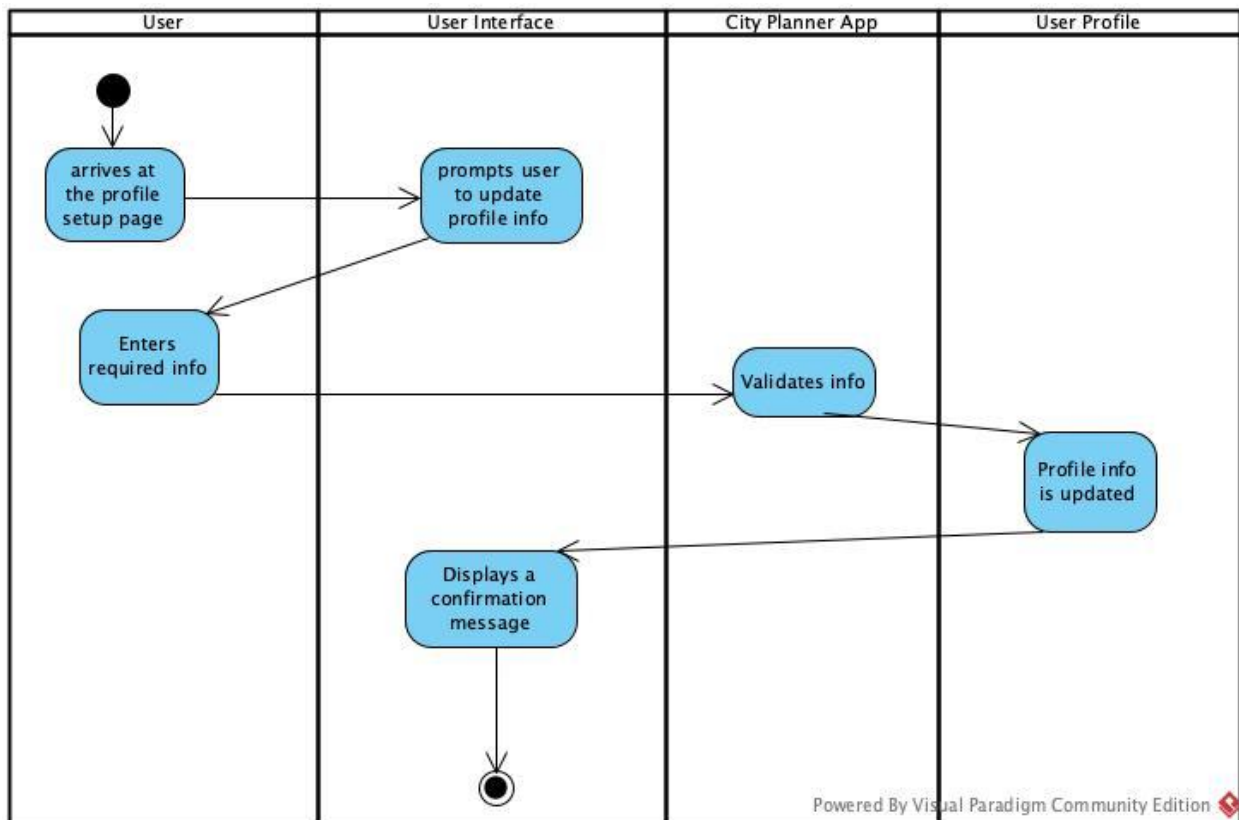
Set Profile Activity Diagram

3.3.1.1.3 Associated Functional Requirements

3.3.1.1.3.1 The app **shall** present a user-friendly interface allowing users to enter and update their name, contact information, and preferences.

3.3.1.1.3.2 The app **shall** validate the user-provided profile information for accuracy and completeness, displaying informative error messages if necessary.

3.3.1.1.3.3 Upon successful validation, the app **shall** instantly apply the updated profile information.

3.3.1.1.3.4 In the event of an unsuccessful update, the app **shall** provide clear error messages to guide users in resolving the issues.

3.3.1.1.3.5 The City Guide App **shall** maintain rigorous data security measures, protecting user information and complying with privacy regulations.

3.3.1.1.3.6 Users **shall** have the flexibility to initiate the profile setup or modification process at their discretion.

3.3.1.1.3.7 The app **shall** log profile updates for auditing and troubleshooting purposes.

3.3.1.2 Set Budget

3.3.1.2.1 Introduction/Purpose of Feature

The "Set Budget" feature is designed to empower users to establish a financial limit for their upcoming trip or event within the City Guide App. Its primary purpose is to provide users with the capability to manage their expenses effectively, ensuring that event planning aligns with their financial preferences.

3.3.1.2.2 Stimulus/Response Sequence
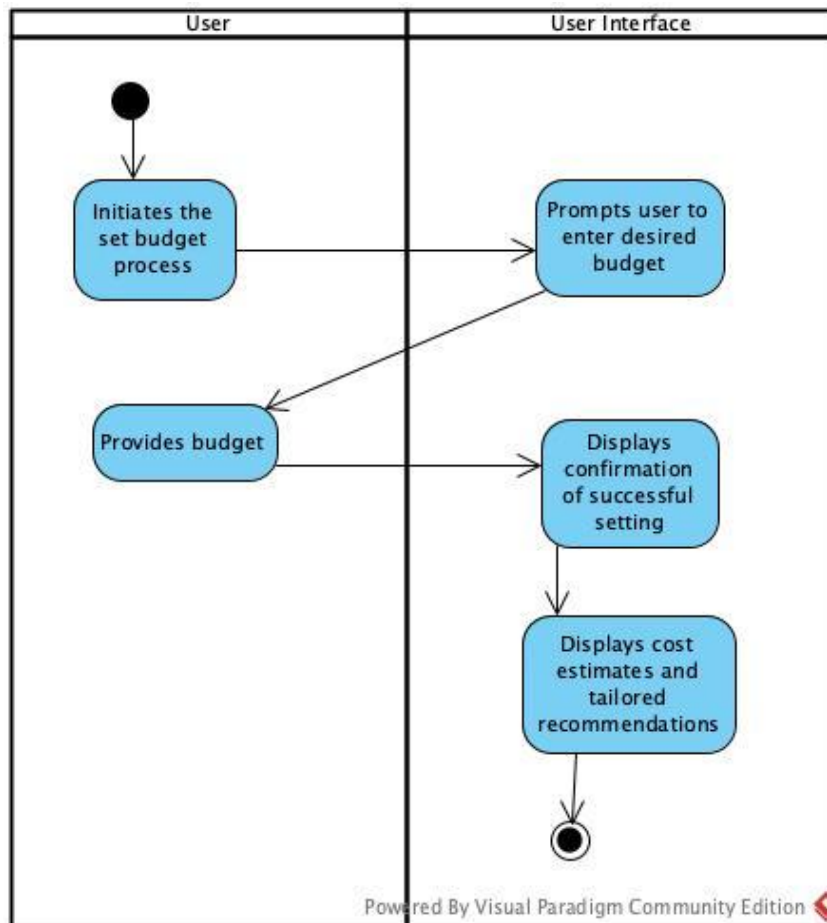
Set Budget Activity Diagram

3.3.1.2.3 Associated Functional Requirements

3.3.1.3.3.1 The City Guide App **shall** present a user-friendly interface that enables users to define and set a budget for their upcoming trip or event.

3.3.1.2.3.2 The app **shall** validate the user-provided budget information to ensure it meets specified constraints (e.g., positive numerical values).

3.3.1.2.3.3 Upon successful validation, the app **shall** store the user's budget for the selected trip or event.

3.3.1.2.3.4 The app **shall** provide cost estimates and recommendations tailored to the user's budget, ensuring that suggested activities and accommodations align with the financial constraints.

3.3.1.3 Set Mode

3.3.1.3.1 Introduction/Purpose of Feature

The "Set Mode" feature is designed to provide users with the ability to select and configure the mode or purpose of their travel within the City Guide App. Its primary purpose is to allow users to define their preferred travel style, such as family travel, traveling with friends, or solo travel. By setting their travel mode, users can receive personalized recommendations and features that cater to their intended trip style, ensuring a more enjoyable and relevant travel experience.

3.3.1.3.2 Stimulus/Response Sequence
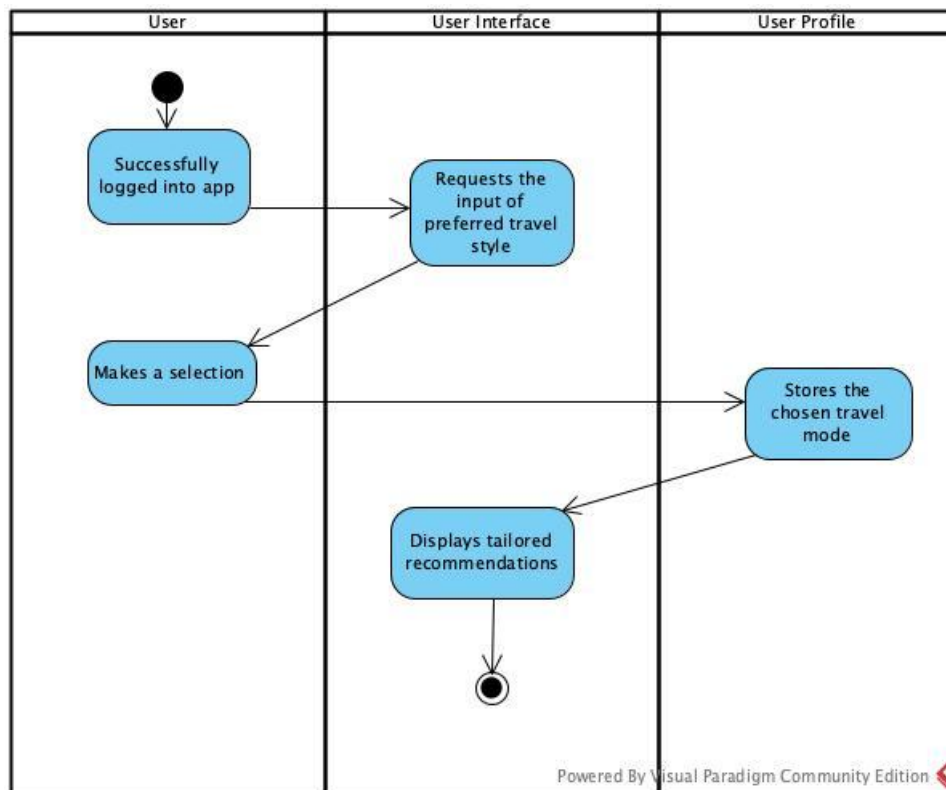
Set Mode Activity Diagram

3.3.1.3.3 Associated Functional Requirements

3.3.1.4.3.1 The City Guide App **shall** offer a user-friendly interface that enables users to select and set their preferred travel mode, including options such as family travel, traveling with friends, solo travel, and adventure travel.

3.3.1.4.3.2 The app **shall** validate the user's selected travel mode, ensuring that the chosen mode is consistent with the available options.

3.3.1.4.3.3 Upon successful validation, the app **shall** store the user's selected travel mode for their upcoming trip.

3.3.1.4.3.4 The app **shall** personalize recommendations, features, and content based on the user's chosen travel mode.

3.3.1.4 Manually Add/Delete Event

3.3.1.4.1 Introduction/Purpose of Feature

The "Manually Add/Delete Event" feature serves to provide users with the capability to manually include or remove events in their itinerary. Its primary intent is to offer users direct control over their travel plans, allowing them to personalize their itineraries according to their preferences and schedules.

3.3.1.4.2 Stimulus/Response Sequence
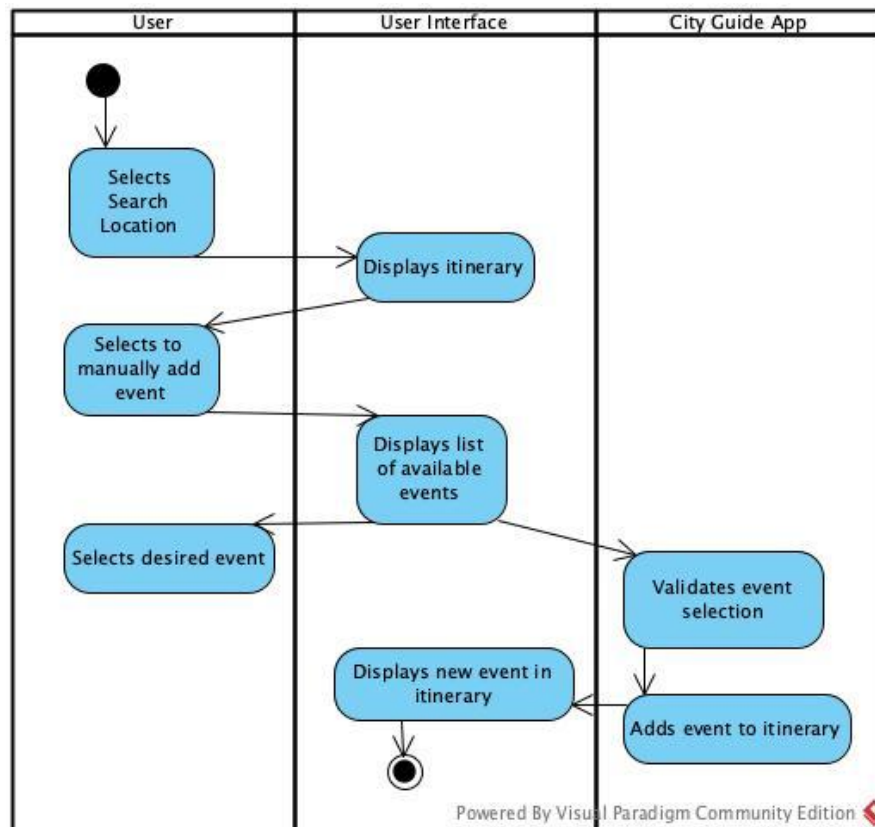
Manually Add/Delete Event Activity Diagram

3.3.1.4.3 Associated Functional Requirements

3.3.1.4.3.1 The app **shall** provide a straightforward process for users to select and remove events from their itinerary as needed.

3.3.1.4.3.2 When a user attempts to add an event, the app **shall** perform validation to ensure event availability and check for any potential schedule conflicts before confirming the addition.

3.3.1.4.3.3 In the case of event removal, the app **shall** efficiently remove the selected event from the user's itinerary without causing disruptions.
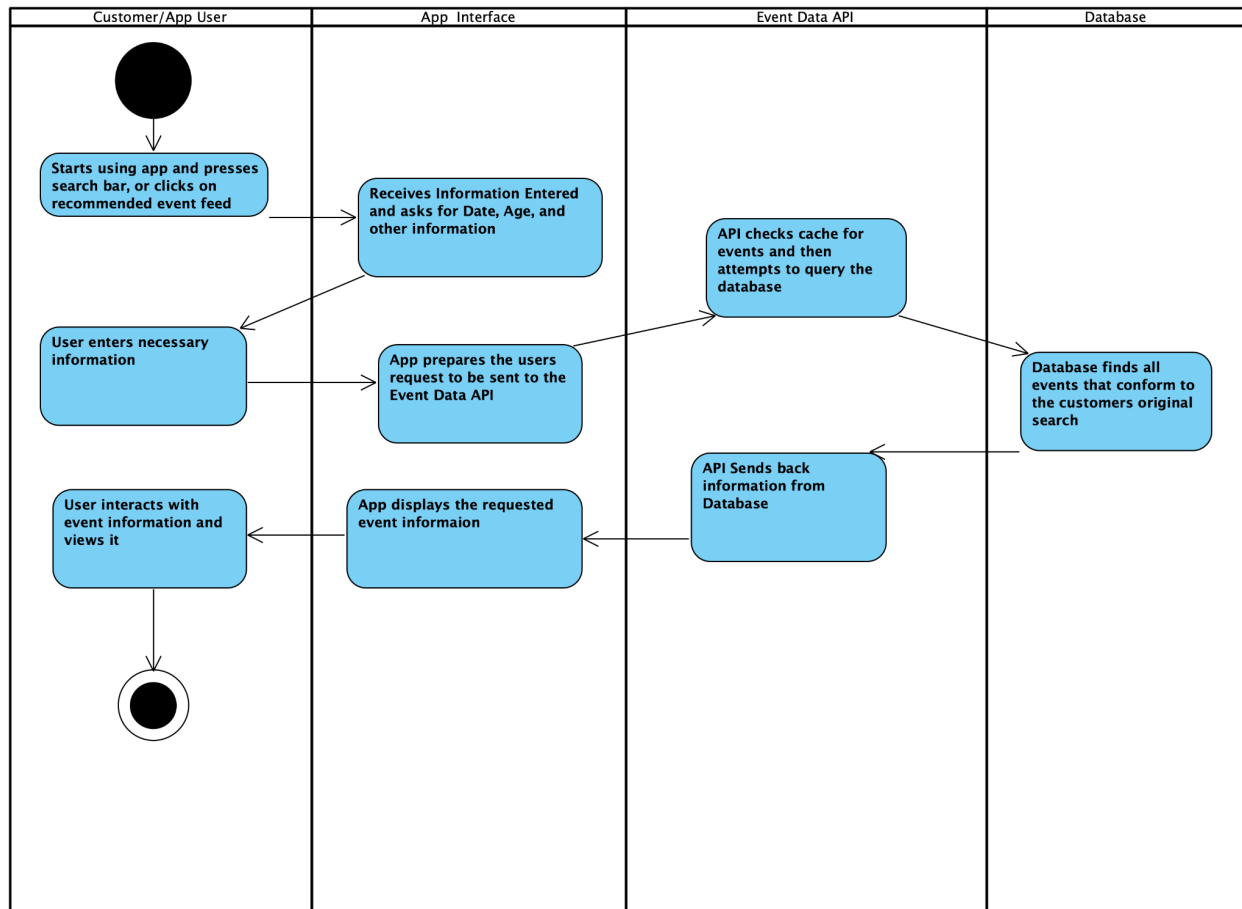
3.3.1.4.3.4 In the event of a failed addition, such as due to schedule conflicts or unavailability, the app **shall** convey clear and informative error messages to the user to explain the rejection.

3.3.1.5 Check Event Info

3.3.1.5.1 Introduction/Purpose of Feature

Accessing detailed and accurate information about an event can make or break the user's decision to attend. This feature enables users to get comprehensive details about a specific event, aiding them in their decision-making process. By providing all essential details at their fingertips, the City Guide App ensures a seamless experience for users keen on attending local events.

3.3.1.5.2 Stimulus/Response Sequence

Customer/App User	App Interface	Event Data API	Database

- Starts using app and presses search bar, or clicks on recommended event feed
- Receives Information Entered and asks for Date, Age, and other information
- API checks cache for events and then attempts to query the database
- User enters necessary information
- App prepares the users request to be sent to the Event Data API
- Database finds all events that conform to the customers original search
- User interacts with event information and views it
- App displays the requested event informaion
- API Sends back information from Database

<div align="center">Check Event Info Activity Diagram</div>

3.3.1.5.3 Associated Functional Requirements

3.3.1.5.3.1 The system **shall** interface with the app's database to fetch specific event information based on the user's request.

3.3.1.5.3.2 The app **shall** display detailed event information, including date, time, and location.

3.3.1.5.3.3 The system **shall** provide a description of the event to give users a clear understanding.

3.3.1.5.3.4 Users **shall** be able to view pricing details for the selected event.

3.3.1.5.3.5 The system **shall** offer images or videos associated with the event, if available.

3.3.1.5.3.6 The app **shall** allow users to mark an event as a favorite for easier future access.

3.3.1.5.3.7 Users **shall** have the option to share the event details with friends or family.

3.3.1.5.3.8 The system **shall** provide user reviews and ratings for the event, aiding decision-making.

3.3.1.5.3.9 The app **shall** provide a direct link to book tickets or register for the event if needed.

3.3.1.5.3.10 The system **shall** ensure all event information is up-to-date and accurate.

3.3.1.6 Booking

3.3.1.6.1 Introduction/Purpose of Feature

The essence of event planning is securing the necessary accommodations, tickets, or services that complete the experience. This feature offers users the convenience of booking everything they need for their event directly through the City Guide App. Simplifying the booking process ensures users can focus on the experience rather than the logistics. Instead of booking through a mess of different apps, the City Planner App allows users to to book it all from one place, in seconds.

3.3.1.6.2 Stimulus/Response Sequence
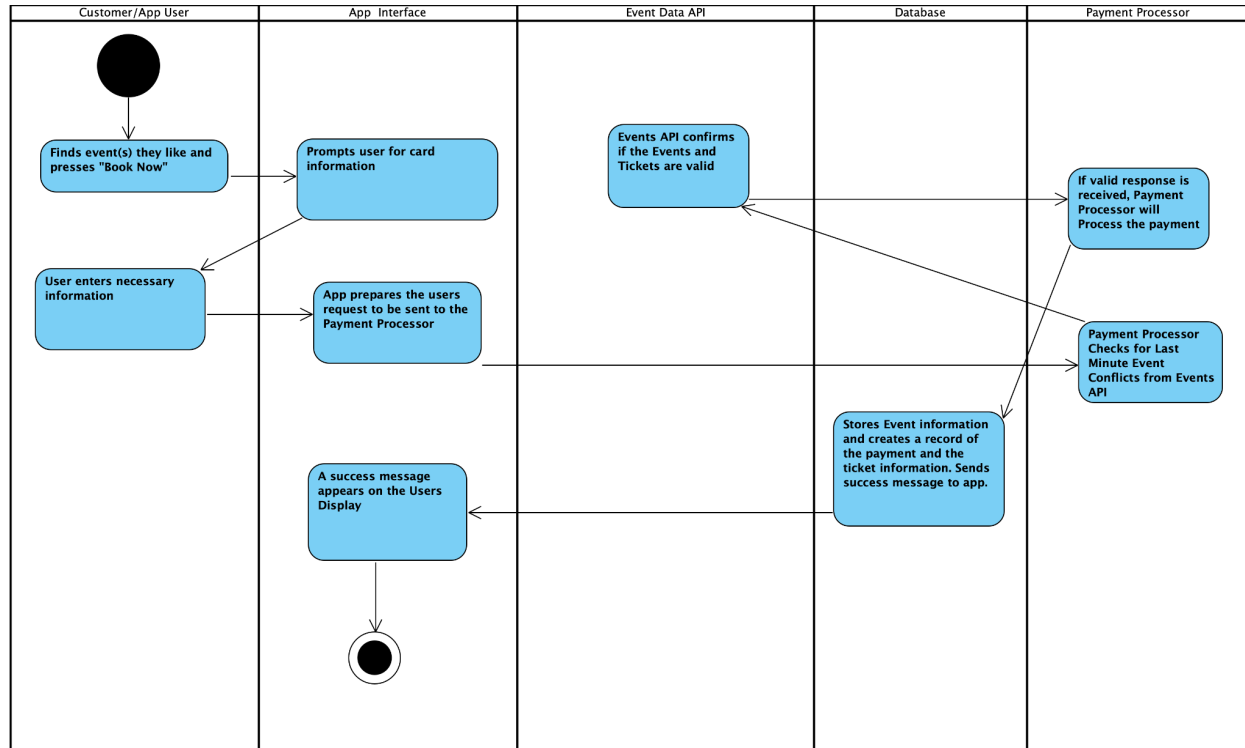
Booking Activity Diagram

3.3.1.6.3 Associated Functional Requirements

3.3.1.6.3.1 The system **shall** interface with third-party service providers to fetch availability and pricing details.

3.3.1.6.3.2 Users **shall** be able to view available accommodations, tickets, or other services based on their event details.

3.3.1.6.3.3 The system **shall** provide a secure booking process, ensuring user data protection.

3.3.1.6.3.4 Users **shall** receive instant booking confirmation within the app upon successful transaction.

3.3.1.6.3.5 The app **shall** allow users to choose from multiple payment options, such as credit card, digital wallet, or bank transfer.

3.3.1.6.3.6 The app **shall** provide a detailed booking summary, including total costs and itinerary.