كلية الحوسبة والمعلوماتية |
College of Computing and Informatics
الجامعة السعودية الإلكترونية
SAUDI ELECTRONIC UNIVERSITY
2011-1432

College of Computing & Informatics (CCI)
SENIOR PROJECT-I REPORT

Event Planner App

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BACHELOR OF SCIENCE IN Computer Science

Project Supervisor	Project Committee Chair

ABSTRACT

In the vibrant cultural landscape of Saudi Arabia, where events ranging from traditional weddings to corporate gatherings are a staple, there exists a growing need for innovative and efficient event planning solutions. This Project introduces an advanced event planner app, specifically designed for the unique demands of the Saudi Arabian market. Our app streamlines the event planning process, integrating cultural nuances and local preferences to deliver a seamless and culturally attuned experience.

The application capitalizes on the latest technology to offer features such as venue selection, catering management, budget management, all adapted to respect and incorporate Saudi traditions and customs. An in-depth analysis of the Saudi Arabian event planning sector, including user behavior and market trends, underpins the app's design. This ensures that the app meets the anticipated needs of its users, providing a comprehensive, user-friendly, and culturally relevant tool for event planning.

DEDICATION

This project is for everyone who has had a hard time finding the right place for their events. Your experiences have inspired us to make this app, to make planning events easier for everyone.

We dedicate this project to our parents. Your love, help, and strong support have given us the strength to work on this dream. Thank you for everything you've done for us.

A special thank you to Dr. Hamdan Alzahrani. Your advice and help have been very important to us. You have shown us the way when we needed it most.

To our friends, who have given their time, thoughts, and support, this project is as much yours as it is ours. You have helped make this idea come true.

PREFACE

This project talks about our journey in making a special event planning app. Our goal was to make planning events, like weddings or business meetings, easier and more fun in a place known for its beautiful traditions and modern life.

We will show how we made the app, from our first ideas to the final product. We paid close attention to what people in Saudi Arabia need and want, including things that are important in their culture and finding places and services in their area.

Making this app was an adventure. We learned a lot and faced some challenges, especially about mixing technology with traditional ways. This report shares these experiences and what we learned from them.

We hope this app makes planning events in Saudi Arabia easier and more enjoyable. We're excited about how technology can help connect old traditions with new ways of doing things.

REVISION HISTORY

Name	Date	Reason For Changes	Version
Rayan Alburaidi	25/10/2023	Creating the report	1.0
Rayan Alburaidi	01/11/2023	Writing chapter 1	1.1
Meshal Theeb	03/11/2023	Writing chapter 2	2.0
Yazeed Alduaylij	05/11/2023	Writing chapter 3	3.0
Nasser Abdullah	16/11/2023	Writing and editing 4.1, 4.2 and 4.3	4.0
Rayan Alburaidi	17/11/2023	Writing and editing 4.4	5.0
Meshal Theeb	25/11/2023	Designed Component Diagram 5.1	5.1
Rayan Alburaidi	25/11/2023	Designed Deployment Diagram 5.2	5.2
Yazeed Alduaylij	26/11/2023	Designed level sequence diagram 5.4	5.5
Rayan Alburaidi	27/11/2023	Designed Complete class diagram 5.6	5.6
Nasser Abdullah	27/11/2023	Designed Entity-relationship diagram 5.7	6.0
Nasser Abdullah	27/11/2023	Writing and editing 6.1	6.5
Meshal Theeb	27/11/2023	Writing and editing 6.2 and APPENDIX	7.0
Meshal Theeb	05/12/2023	Final Review	7.1

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CHAPTER 1: INTRODUCTION

Welcome to the new and easy way to set up events in Saudi Arabia! Our country loves to celebrate holidays, national festivities, and weddings every day. But however, organizing such events can be a hassle, it requires a lot of effort and time.

This app is made as a complete tool that covers all parts of planning an event. It makes it easy to find help for parties, the best places to hold them, and people who provide services for events. All of this is done through a simple and easy-to-use design. Users can quickly look through different choices, keep an eye on their spending, and check prices with just one click. This makes the whole process of planning an event much more efficient.

In this time when digital technology is changing everything around the world, it's also changing the way events are planned in Saudi Arabia. Our app is a great example of this change. It's a complete solution that brings together all the different parts of planning an event. This shows how digital tools are becoming more important in business and industry.

The app has a special checklist feature that helps users keep track of important things they need to do for their event. This makes sure they don't forget anything important. It also has a great tool for managing budgets, letting users plan events that fit their money needs. With these important features, the app not only saves time but also makes planning events more accurate and efficient.

1.1 Project Background/Overview:

The Event Planner app is an ambitious initiative to provide a complete digital solution for event organizers and attendees.

In a world where time is precious and efficiency is valued above all else, this app is an essential tool for organizing events from family meetings to large corporate events in an affordable way.

1.2 Problem Description:

Current event planning processes are often disjointed, relying on many different disconnected tools and platforms, which can lead to organizational challenges and a disjointed experience.
The need for a unified system that can handle the omnichannel nature of event management from scheduling and guest management to vendor coordination and electronic invitations is more urgent than ever.

1.3 Project Scope:

The Event Planner app was designed with the goal of consolidating all event planning tasks into a single, intuitive platform, eliminating the need to use multiple different tools.
Key benefits include streamlining communication between all stakeholders, simplifying the logistical complexity of event management, and providing real-time updates and changes.
Our solution is developed with the aim of delivering a superior, hassle-free experience that saves event organizers time and improves event quality.
By providing features such as budgeting, vendor management system, and Checklist templates, the app seeks to enable users to create memorable and efficiently managed events in an efficient manner easier way than ever.
The main goal of this app is to help event organizers work more efficiently. It brings together all the various parts of planning an event into one easy-to-use tool. This makes planning events easier and helps them do better. The app aims to change the way people plan events and set a new standard in the event planning field by making things simpler and more organized.

1.4 Project Objectives:

The main objective of the Event Planner App project is to deliver tangible results that redefine the event planning and management experience.
The planned achievements we hope to achieve with the launch of this app include:

- **Improve user experience:** Provide a user-friendly interface that simplifies the planning process Event planning for both amateur and professional planners.
- **Improve efficiency:** Significantly reduce the time and effort required to organize an event by integrating all the necessary tools into a single platform.
- **Reduce costs:** Reduce the overall cost of event planning for our users with efficient resource management features.
- **Customer Feedback:** To maintain customer satisfaction above 90%, as measured by tracking surveys and in-app feedback.

These goals serve as a guide for the project, ensuring that every feature developed, and every strategy implemented is executed with these end goals in mind.

1.5 Project Structure/Plan:

The project will be structured as follows:

Market research: This phase includes gathering information about the preferences and requirements of potential users, with the aim of identifying essential functions application.

Interface Design: In this phase, the focus will be on developing the layout of the application using wireframes, followed by developing the visual aesthetics of the user interface.

1	Defining project scope and ...	Unassigned	-	10/Sep	20/Sep	Finished
2	Conduct market research a...	Unassigned	-	21/Sep	08/Oct	Finished
3	Writing literature review	Unassigned	-	03/Oct	23/Oct	Finished
4	Develop project plan and ti...	Unassigned	-	24/Oct	06/Nov	Finished
5	Writing methodology	Unassigned	-	07/Nov	20/Nov	Finished
6	System Analysis	Unassigned	-	21/Nov	27/Nov	Finished
7	System Design	Unassigned	-	28/Nov	03/Dec	Finished
8	Design UI|UX	Unassigned	-	04/Dec	14/Jan	Not started
9	Develop and Test MVP	Unassigned	-	15/Jan	11/Mar	Not started
10	Conduct User Testing and ...	Unassigned	-	12/Mar	02/Apr	Not started
11	Implement Changes and Im...	Unassigned	-	03/Apr	07/May	Not started
12	Finalize and Launch Project	Unassigned	-	08/May	07/Jun	Not started

Figure 1 Overview of Our Project Plan Using a Gantt Chart

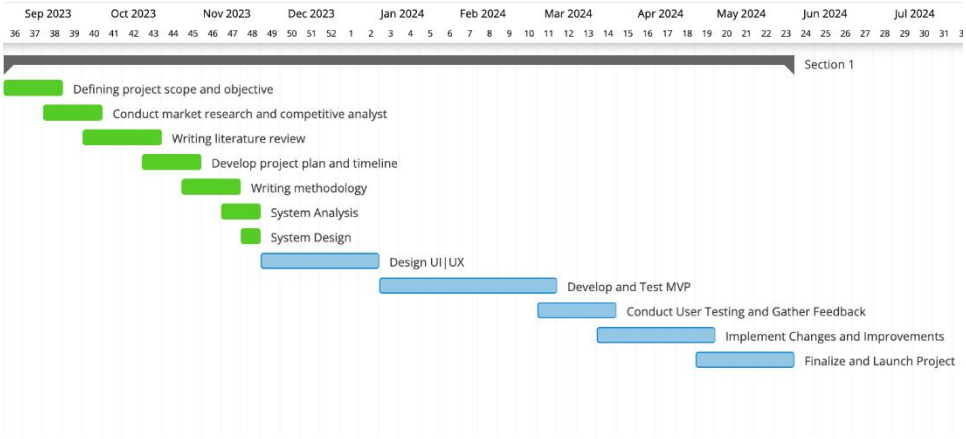

Figure 2 Overview of Our Project Plan Using a Gantt Chart

CHAPTER 2: LITERATURE REVIEW

It is clear from a literature review that Event planning apps have become increasingly popular in recent years, as they offer a convenient and efficient way for users to plan and manage their events. However, there are still some gaps in the market, and there is an opportunity to develop an event planning app that is more comprehensive and user-friendly than existing offerings.

iWedPlanner (2023) stands as a significant leap forward, introducing features such as budget management, guest list tracking, vendor management, seating arrangement planning, and a wedding day countdown timer.

According to Rupesh Deshmukh (2020), their proposed system focuses on three essential features: a Virtual Board, Urgent Alerts, and Bookmarks. The system excels in functionality and caters to student needs, outperforming other Android or web-based alternatives significantly.

Nilesh Verma's application (2022) comprises five models: Event Management, Favorite Events, Creating Events, Tickets Management, and an Authentication System. It not only reduces manual work for users and event providers but also facilitates easy access to event information, integrating Google Maps for location, QR code generation for detailed event descriptions, timing, and location verification.

Sonal Sawant's Online Event Management application (2021) emphasizes four features: Creating events, publishing events, managing favorite events, and controlling participation. It targets college-level event management, leveraging Flutter and secure NoSQL databases like MongoDB and Firebase.

Akanksha Jadhav's system (2023) focuses on monitoring student attendance at college events, providing features for teachers to update attendance and marks, and enabling students to check their attendance and marks securely. However, there are concerns about the authentication mechanism's security.

Sandeep Misal's app (2017) highlights features such as event scheduling, volunteer assignment, online event registration, and event content management through the Android app interface.

Mansi Maurya's (2023) app emphasizes real-time event alerts, comprehensive event history, and electronic attendance tracking, including certificate distribution.

Vaishali R. Surjuse's project (2021) centers on user registration, login, event creation, management, and viewing, user profile management, push notifications, and in-app messaging.

Asraf Ansari (2022) outlines essential features like adding, removing, viewing event information, and accessing event schedules.

HOD Dr. R. Juliana's application (2022) integrates QR technology for efficient event registration, audience engagement, and features like polls, Q&A sessions, vendor recommendations, and an e-invitation planner.

Ravikant Appaso Hatgine (2021) underscores that only college coordinators have event management privileges, limiting participant actions to viewing events and making payments.

Rinat Khatipov's app (2018) focuses on providing users the freedom to create and invite others to any event.
Khalil Pinjari (2016) emphasizes total management control for customer and employee services in different events, with features like event creation, location details, E-card designing, customer details addition, and main report printing.
Miti Shah's application (2019) targets both administrators and customers with features like user management, event category and package management, and viewing booking requests and feedback.
AMITA SHARMA's (2011) main features include hall booking checks, advance payment checks, event modification, deletion, report generation for due bills, schedule tracing, event tracing, authorization checks, and logging.
Prasanna Pabba1's app (2022) focuses on managing application servers and promoting activities for student chapter/club leaders, while users can view, register, and join events.
Dennis Gunadi's app (2022) offers wedding services with features like service search, package selection, payment options, and data order management for customers and admin.
Various wedding planning apps like Planner W. w. (2015), Planner (2018), Countdown (2012), Zola (2012), Knot (2019), weddinghapp (2018), and appycouple (2017) offer a range of services, including vendor searches, budgeting, guest list management, and personalized wedding app and website creation.
However, there are still some gaps in the Existing Event Planning Apps

- Lack of personalization: Many event planning apps offer a one-size-fits-all approach, failing to cater to the specific needs and preferences of individual users.
- Limited scope: Most apps focus on a specific aspect of event planning, such as budgeting or vendor management, leaving users to manage other aspects using separate tools.
- Poor user experience: Some apps are cluttered and difficult to navigate, making it challenging for users to find the information they need quickly and easily.
- Lack of integration: Few apps integrate with other relevant tools, such as calendars and productivity apps, creating a disjointed user experience.
- Limited customization: Many apps offer limited options for customization, preventing users from tailoring the app to their specific needs and preferences.

There is a clear opportunity to develop a new event planning app that addresses the gaps in existing solutions. An ideal app would offer the following features:

- ✓ Personalized experience: Tailor the app to the individual user's needs and preferences, based on their event type, budget, and location.
- ✓ Comprehensive scope: Cover all aspects of event planning, from budgeting and vendor management to guest list management and task management.
- ✓ Seamless user experience: Provide a clean, intuitive, and user-friendly interface that makes it easy to find information and manage tasks.
- ✓ Deep integration: Integrate with other relevant tools, such as calendars, productivity apps, and communication platforms, for a streamlined user experience.
- ✓ Extensive customization: Allow users to customize the app's layout, features, and settings to suit their specific needs and preferences.

CHAPTER 3: METHODOLOGY

We have chosen Agile Methodology as our software development process.
The Agile methodology has been selected for the development of our software application due to its flexibility, efficiency, and collaborative nature. Agile is a methodology that supports iterative development, enabling gradual progress in software development and offering opportunities to evaluate and adjust the project's course during its lifecycle.
Rationale Behind Agile Selection:

1. Adaptability to Change: Given the dynamic nature of software requirements, Agile offers the ability to adapt to changes in project scope and user needs rapidly. This is essential for staying relevant and competitive in the fast-paced tech environment.
2. Customer-Centric Approach: Agile prioritizes customer feedback and integrates it into the development process. This ensures that the product evolves according to the actual user requirements, increasing customer satisfaction and product usability.
3. Continuous Delivery: Agile facilitates a continuous delivery pipeline, allowing for frequent releases of functional software. This helps in identifying issues early, ensuring quality, and providing quick value to users.
4. Collaboration and Communication: The methodology encourages regular communication between developers, stakeholders, and customers. This collaborative environment fosters better decision-making and more creative problem-solving.
5. Risk Management: Regular iterations allow for early detection of issues and the minimization of risks associated with development, ensuring a higher success rate for the project.

By employing the Agile methodology, the development process is expected to be more responsive and aligned with the project's goals and user expectations. This approach is supported by the class diagram, which outlines a clear structure for the application, allowing for modular development and integration of features as defined by Agile principles.
We have chosen java to be our programming language for our app, since the team is familiar with it, and it works with our IDE which we will cover next.
For providing the tools and technologies we will use Android Studio as our primary IDE for building the app, since we will use java as our programing language.

Search and listing techniques:

We will use a weighted scoring system, or we can say Multi-Criteria Decision Analysis (MCDA).
1. Define Criteria:
- Capacity: How many people the venue can accommodate.
- Cost: The total cost of booking the venue.
- Location: The geographical location of the venue.

2. Assign Weights:
- Determine the importance of each criterion.

If the cost is more critical than location, we will assign a higher weight to cost.
3. Normalize Data:
- Convert data into a common scale.
- If capacity is measured in people (e.g., 100, 200, 300), and cost is in SAR (e.g., SAR1000, SAR2000), Normalize them to a common scale (e.g., 0 to 1).

4. Score Each Venue:
- Score each venue on each criterion.

- For capacity, a larger venue gets a higher score.
For cost, a lower cost gets a higher score.
Apply the weights to calculate a weighted score for each criterion.
5. Aggregate Scores:
- Combine scores to get an overall score.
- For example, if the weights are 0.4 for capacity, 0.4 for cost, and 0.2 for location,
The overall score could be calculated as:
Overall Score= (0.4×Capacity Score) +(0.4×Cost Score) +(0.2×Location Score)
6. Rank Venues:
- Sort venues based on their overall scores.
- The venue with the highest score is considered the best choice.

Agile Methodology Plan:
After we declare the project objectives and Emphasize roles such as developers and UI designer and Content writer we will start in:

1. **Writing backlog:** We will organize a list of project requirements and features, prioritizing them based on the objectives of this project.

2. **Sprint planning:** We will divide the project into development sprints. Each sprint will last for one week. In every sprint planning meeting the team will select a set of tasks from the product backlog to complete during the sprint.

3. **Daily Stand-ups:** We'll be having short daily stand-up meetings, typically lasting around 10 minutes, to ensure that the whole team is on the same page and to strategize for the upcoming 24 hours. These meetings will greatly assist in promptly identifying and resolving any challenges we may encounter.

4. **Sprint review:** After completing each sprint we will hold a sprint review with the project team. This review is an opportunity to showcase the work accomplished and have discussions about both successes and areas for improvement.

5. **Testing and Quality Assurance:** To ensure that the product meets the quality standards and functional requirements we will conduct regular testing and quality assurance throughout the sprint.

6. **Iterative Feedback and Improvement:** We utilize the input gathered during sprint reviews and retrospectives to make any required modifications, in the product backlog, processes and the team's approach.

The team will have the flexibility and responsiveness to adapt to changes with the agile methodology approach while maintaining steady progress, towards the projects goals and it will guarantee that the group is producing high-caliber work and progressing consistently.

CHAPTER 4: SYSTEM ANALYSIS

4.1 Product Features:

User Registration:

- **Description:** The system must provide a seamless user registration process that enables individuals to create accounts, utilizing their phone numbers for verification and completing the sign-up procedure through One-Time Password (OTP) verification.

Budget:

- **Description:** involves providing users with the capability to set, manage, and track the financial aspects of their event. Users should be able to allocate funds to different categories, track expenses, and receive notifications to stay within their specified budget.

Checklist:

- **Description:** aims to assist users in organizing and managing tasks related to event planning. Users can generate customized checklists, mark completed tasks, and receive reminders for pending activities. This feature ensures that users can efficiently plan and execute all necessary aspects of their event.

Venue Management:

- **Description:** enables users to search, select, and manage event venues. Users should have access to details such as venue capacity, availability, pricing, and any additional features.

Service Providers Management:

- **Description:** allows users to discover and manage various service providers involved in event planning, such as vendors, venue coordinators, and other professionals. Users can search for providers, review their profiles, and collaborate with them through the platform.

Payment Processing:

- **Description:** facilitates secure and seamless financial transactions within the event planning application.

The goal is to provide users with a convenient and transparent payment experience.

4.2 Functional Requirements:

Use-Case 1: Registration for Users

Identifier	UC-1	
Purpose	To allow users to register for the Event Planner application using his phone number and completing the registration process through OTP verification.	
Priority	High	
Pre-conditions	The user is required to possess a valid and unique mobile phone number. The user is required to have a valid and unique email address.	
Post-conditions	The user account is successfully created, and he gains access to the features of the Event Planner application.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User launches the application	System displays the registration screen
2	User selects the option to register with a phone number	System prompts the user to enter his phone number
3	User enters his phone number and requests OTP	System generates and sends a one-time password (OTP) to the provided phone number
4	User receives the OTP and enters it in the app	System verifies the OTP and confirms the user's phone number
5	The user submits supplementary registration information, including their name and email.	System prompts the user to enter additional information
6	User completes the registration form and submits	System creates the user account and displays a registration success message
7	User is automatically logged in to their new account	System redirects the user to the app's dashboard with full access
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User launches the application	System displays the registration screen
2	User encounters issues receiving OTP	System provides an option to resend the OTP
3	User enters an incorrect OTP	System prompts the user to re-enter the correct OTP or offers a resend option
4	User enters invalid E-mail	System prompts the user to enter a valid E-mail
5	User decides to cancel registration	System cancels the registration process and returns to the app's home screen

Use-Case 2: User Login

Identifier	UC- 2	
Purpose	To allow users to securely log in to the Event Planner application using their credentials.	
Priority	High	
Pre-conditions	• The user possesses a currently active account on the event planning platform. • The user has completed a successful registration and possesses valid login credentials.	
Post-conditions	• The user is successfully authenticated and gains access to the features of the Event Planner application.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User launches the application	System displays the login screen.
2	User enters valid phone number	System verifies the phone number and send OTP.
3	Users enter the correct OTP	System grants access to the user.
4	User gains access to the app	System redirects the user to the app's dashboard.
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the event planning app	System prompts the user to complete his profile.
2	User enter a new phone number	System redirects the user to Registration page.
3	User exceeds login attempts	System locks the account temporarily and provides instructions for unlocking.
4	User decides not to complete profile	System cancels the profile completion process, and the user's profile remains unchanged.

Use-Case 3: Complete User Profile

Identifier	UC- 3	
Purpose	To enable users to provide additional information and complete their profiles on the Event Planner application.	
Priority	Medium	
Pre-conditions	The user is required to have a valid and active account within the Event Planner application. The user has logged into the application.	
Post-conditions	The user's profile is successfully updated with additional information.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the event planning app	System prompts the user to complete his profile.
2	User click on the prompt	System provides features for managing the user's profile.
3	User provides additional details	System allows the user to add or edit information such as address, bio, or preferences.
4	User saves the changes	System processes and saves the updated profile information.
5	Changes are reflected in the platform	System updates the user's profile, and the changes become visible.
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the event planning app	System prompts the user to complete his profile.
2	User encounters technical issues	System provides error messages or assistance options to address technical issues.
3	User decides not to complete profile	System cancels the profile completion process, and the user's profile remains unchanged.

Use-Case 4: Edit User Profile

Identifier	UC- 4	
Purpose	To allow users to edit and update their profile information on the event planning platform	
Priority	Medium	
Pre-conditions	• User is logged into the event planning platform. • The user has an active profile on the platform.	
Post-conditions	User's profile information is successfully updated, and changes are reflected in the platform.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User accesses the "Account " section	System provides features for managing the user's profile
2	User selects the "Edit Profile" option	System presents a form or interface with the user's existing profile information
3	User makes changes to profile information	System allows the user to edit fields such as name, email, profile picture, and other relevant details
4	User saves the changes	System processes and saves the updated profile information
5	Changes are reflected in the platform	System updates the user's profile, and the changes become visible to other users
Alternate Course of Action		
S#	User logs into the system	System displays the user's dashboard
1	User encounters technical issues or errors	System provides error messages and assistance options to address technical issues with profile editing
2	User decides not to make changes	System cancels the profile editing process, and the user's profile information remains unchanged

Use-Case 5: Managing Event Expenses within Budget

Identifier	UC-5	
Purpose	To effectively manage and track event expenses, ensuring that the User stays within his allocated budget for the event.	
Priority	High	
Pre-conditions	The user is required to have a valid and active account within the Event Planner application. The user has created an event and defined an initial budget	
Post-conditions	Event expenses are effectively managed, and the User stays within or adjusts his budget as needed.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	User accesses the "Budget" section	System provides features for managing and tracking event expenses
3	User sets initial budget for venue and vendors	System allows the user to set budget allocations
4	System enters actual expenses as they occur	System provides an interface to log expenses and updates the remaining budget
5	System notifies the user when expenses approach or exceed budget limits	System sends alerts to the user to keep them informed
6	User reviews expense reports and adjusts the budget if necessary	System provides reports and allows the user to modify budget allocations
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	User encounters unexpected expenses	System offers suggestions for reallocating budget or adjusting plans
3	User decides to increase the overall budget	System allows the user to modify the budget limits

Use-Case 6: Event Preparation Checklist

Identifier	UC-6	
Purpose	To help users plan and organize their events efficiently by providing a comprehensive checklist of tasks, ensuring that no important details are overlooked.	
Priority	High	
Pre-conditions	The user is required to have a valid and active account within the Event Planner application. The user has created an event and provided initial details about the event.	
Post-conditions	The user has a well-organized and completed event preparation checklist.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	User accesses the "Checklist" section	System provides features for managing and tracking event preparation tasks
3	User specifies event details (date, venue, theme)	System uses this information to generate a personalized event preparation checklist
4	System presents the initial checklist to the User	System displays a checklist with tasks categorized by timeline and category
5	User marks completed tasks and adds additional items	System allows the user to check off completed tasks and add custom items to the checklist
6	System sends reminders for upcoming tasks	System generates automated reminders for tasks approaching their due dates
7	User reviews and adjusts the checklist as needed	System allows the user to modify the checklist based on their preferences and priorities
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	User feels overwhelmed with the checklist	System provides tips, suggestions, or options to simplify the checklist
3	User encounters technical issues with the checklist	System offers assistance or troubleshooting guidance

Use-Case 7: Venue search

Identifier	UC-7	
Purpose	To assist the user in selecting a suitable venue for his event, considering various factors like location, capacity, availability, and budget.	
Priority	High	
Pre-conditions	The user is required to have a valid and active account within the Event Planner application. The User has set his event date and has a general idea of his budget and preferred location.	
Post-conditions	The User has successfully selected a venue that meets his criteria.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the Event planning dashboard
2	User creates a new event	System provides an interface for setting up a new event
3	User accesses the "Venue Selection" section	System offers features for browsing and selecting venues
4	User enters location preferences and desired Event date	System allows the User to set location and date filters for venue search
5	System presents a list of available venues matching his criteria	System displays a list of venues, including details on capacity, pricing, and availability
6	User reviews venue options and selects a few favorites	System allows the User to shortlist venues of interest
7	User selects the suitable one	System records the final selection, and the venue is confirmed for the User
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the Event planning dashboard
2	User struggles to find suitable venues	System suggests broadening search criteria or modifying preferences

Use-Case 8: Service Providers Search

Identifier	UC-8
Purpose	To streamline the process and effective management of various service providers.
Priority	High
Pre-conditions	• The user is required to have a valid and active account within the Event Planner application. • The user has initiated the process of searching for and hiring service providers for his event.
Post-conditions	• Service providers are successfully onboarded onto the platform, and their services are seamlessly integrated into the user's event planning profile.

Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the Event planning dashboard
2	User accesses the " service provider " section	System provides features for discovering, and managing service providers
3	User searches for service providers based on categories (e.g., catering, photography)	System presents a list of available service providers with relevant details
4	User selects a service provider and initiates the process	System guides the user through providing the necessary details.
5	System verifies and approves the user request	System conducts a verification process and notifies the user of the service provider's approval
6	User reviews and finalizes the service provider's details in their event planning profile	System updates the user's profile with the selected service provider, including details on services, pricing, and contract terms
7	User collaborates with the service provider through the platform	System facilitates communication and collaboration tools for seamless interaction between the user and the service provider

Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	Service provider fails verification	System notifies the user and provides options for selecting an alternative service provider

Use-Case 9: Reviews

Identifier	UC-9	
Purpose	To enable users to post reviews	
Priority	Medium	
Pre-conditions	The user is required to have a valid and active account within the Event Planner application. The User has engaged with a vendor for event-related services	
Post-conditions	User's review is successfully posted and becomes visible to other users	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the user's dashboard
2	User accesses the "My history" section	System provides features for managing vendors or venues the user has engaged with
3	User selects the specific vendor to review	System displays details of the selected vendor, including services provided
4	User chooses to post a review	System presents an option for the user to write and submit a review for the selected vendor
5	User writes the review	System provides a text input field for the user to write his review, including ratings and comments regarding the vendor's services
6	User submits the review	System processes the submitted review and associates it with the respective vendor
7	Review becomes visible to others	System updates the vendor's information to include the user's review, making it accessible to other users seeking vendor recommendations
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User accesses the "My history" section	System provides features for managing vendors or service providers the user has engaged with
2	User selects the specific vendor to review	System displays details of the selected vendor, including services provided
3	User encounters technical issues	System provides error messages or assistance options to address technical issues with the review submission
4	User decides not to submit a review	System cancels the review submission, and the vendor's information remains unchanged

Use-Case 10: Collecting Payments

Identifier	UC-10	
Purpose	To facilitate the payment process between the user and event service vendors, ensuring secure and convenient transactions.	
Priority	High	
Pre-conditions	• The user possesses a currently active account on the event planning platform. • The user has selected vendors and confirmed the services for their event	
Post-conditions	• Vendor payments are successfully processed, and receipts are generated for both the user and the vendors.	
Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	User accesses the "Payment" section	System provides features for managing and processing payments
3	User selects a vendor and specifies payment method	System allows the user to select a payment method
4	System securely processes the payment through the integrated payment gateway	System sends a confirmation of the successful transaction to the user and the vendor
5	User and the vendor receive payment receipts	System generates and sends receipts to both parties confirming the payment
6	User reviews the updated budget and payment history	System updates the budget and provides a record of the payment in the system
Alternate Course of Action		
S#	**Actor Action**	**System Response**
1	User logs into the system	System displays the event planning dashboard
2	User encounters issues with the payment gateway	System offers assistance or alternative payment methods
3	Vendor encounters issues with receiving payments	System provides support contact details for the vendor to resolve payment-related issues

4.3 Nonfunctional Requirements

Performance Requirements

Response Time:

The system should provide a seamless and responsive user experience by responding to user interactions within a 4-second timeframe.

Throughput:

The system must be capable of accommodating at least 500 concurrent users to guarantee optimal performance, especially during periods of high usage.

Availability:

The system must have a 99.99% uptime, minimizing downtime for maintenance or unexpected issues.

Security Requirements

Data Encryption:

All communication between the user and the system must use industry-standard encryption protocols to protect data from interception.

Access Control:

Role-based access control must be enforced, guaranteeing that users are granted access only to the features and data pertinent to their designated roles.

Security Auditing:

The system should log security events, enabling administrators to monitor and respond to potential security breaches.

User Authentication:

The system must employ secure user authentication mechanisms to prevent unauthorized access to sensitive data.

Software Quality Attributes

Reliability:

The software should be robust, with minimal bugs and errors, ensuring consistent and dependable performance.

Usability:

The interface should be easy to understand, requiring users to undergo minimal training to efficiently navigate and complete tasks.

Maintainability:

The codebase should be well-documented and modular, facilitating easy maintenance, updates, and enhancements.

Portability:

The application should be compatible with major mobile devices, ensuring a consistent experience across different platforms.

Scalability:

The software architecture should support scalability to accommodate future growth in terms of users, data, and features.

4.4 Analysis Models

Level 03 Heading: Description of Use-Case Diagram:
The use case diagram serves as a depiction of the various actions or tasks that users can carry out within the event planner application. It shows how users interact with the system and emphasizes the connections between user activities and system responses outlining how the different use cases are interconnected.
The following is a use-case diagram for the event planner app:

- **Register as a New User**
- **Log in to the System**
- **Edit User Profile**
- **View Venues**
- **View Service Providers**
- **Write Budget**
- **Confirm Booking**
- **Payment**
- **Post Review**
- **Checklist**

The use case diagram acts as a tool for the development team guaranteeing that they consider and incorporate all the essential functionalities into the system.

Figure 3 Use Case Digram

CHAPTER 5: SYSTEM DESIGN

5.1Component Diagram:

The component diagram is a model depicting the system's components and their interactions, illustrating the interconnections and communication among software components. Offering a high-level perspective of the system architecture, this diagram facilitates the identification of components crucial for building the system.

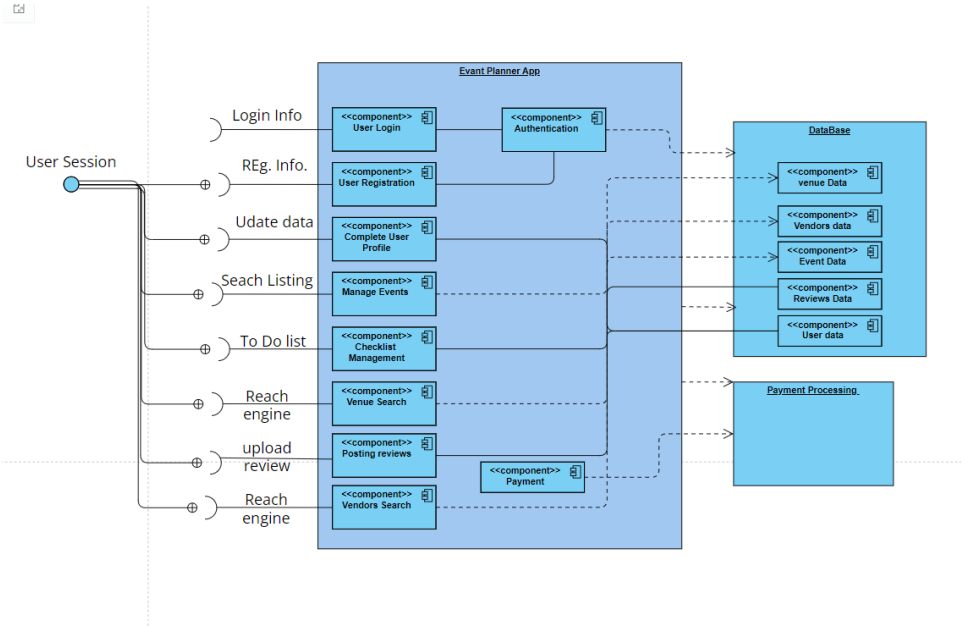

Figure 4 Component Diagram

5.2 Deployment Diagram:

The deployment diagram depicts the tangible structure of a system, outlining its physical architecture. It articulates the hardware and software elements employed for system deployment, illustrating their connections and interactions. This diagram offers a transparent perspective on the system's infrastructure and aids in recognizing the requisite resources for system operation.

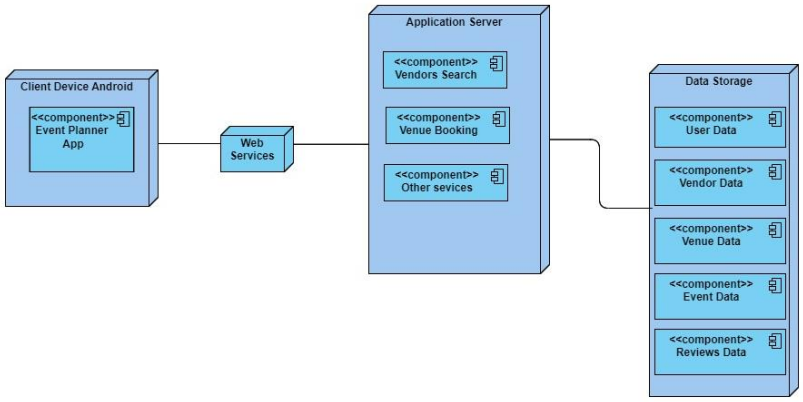

Figure 5 Deployment Diagram

5.3 Flowchart:

A flowchart is a visual representation of a process, algorithm, or system, using standardized symbols to depict steps, decisions, and flow of control. It provides a sequential overview of the logical and procedural structure, aiding in understanding, analysis, and communication of complex workflows or systems.

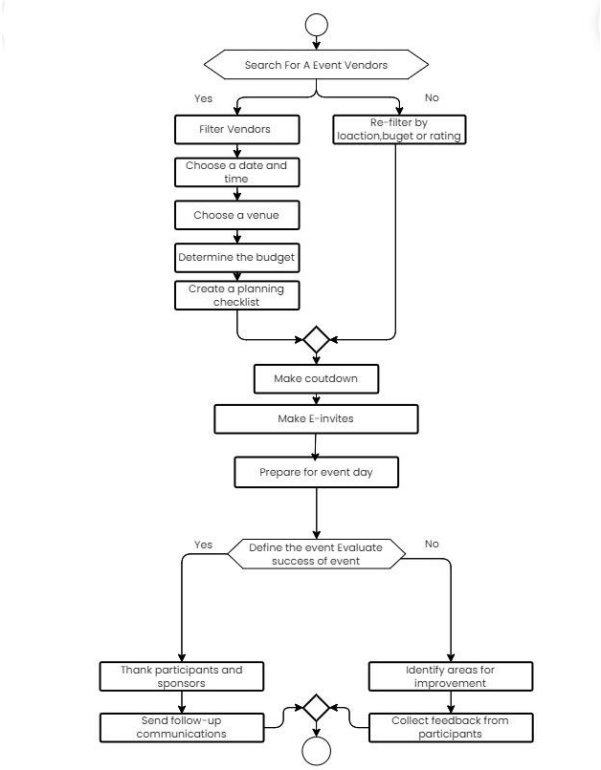

Figure 6 Flowchart

5.4 Design level sequence diagram:

The design-level sequence diagram illustrates interactions between system components, depicting the flow of messages to achieve a specific goal. It helps identify objects and their collaboration but is not designed for optimizing system performance. Performance optimization involves lower-level considerations such as algorithmic efficiency, data structures, concurrency, and code-level tuning. Sequence diagrams are crucial for modeling dynamic behavior but are not directly used for performance enhancements.

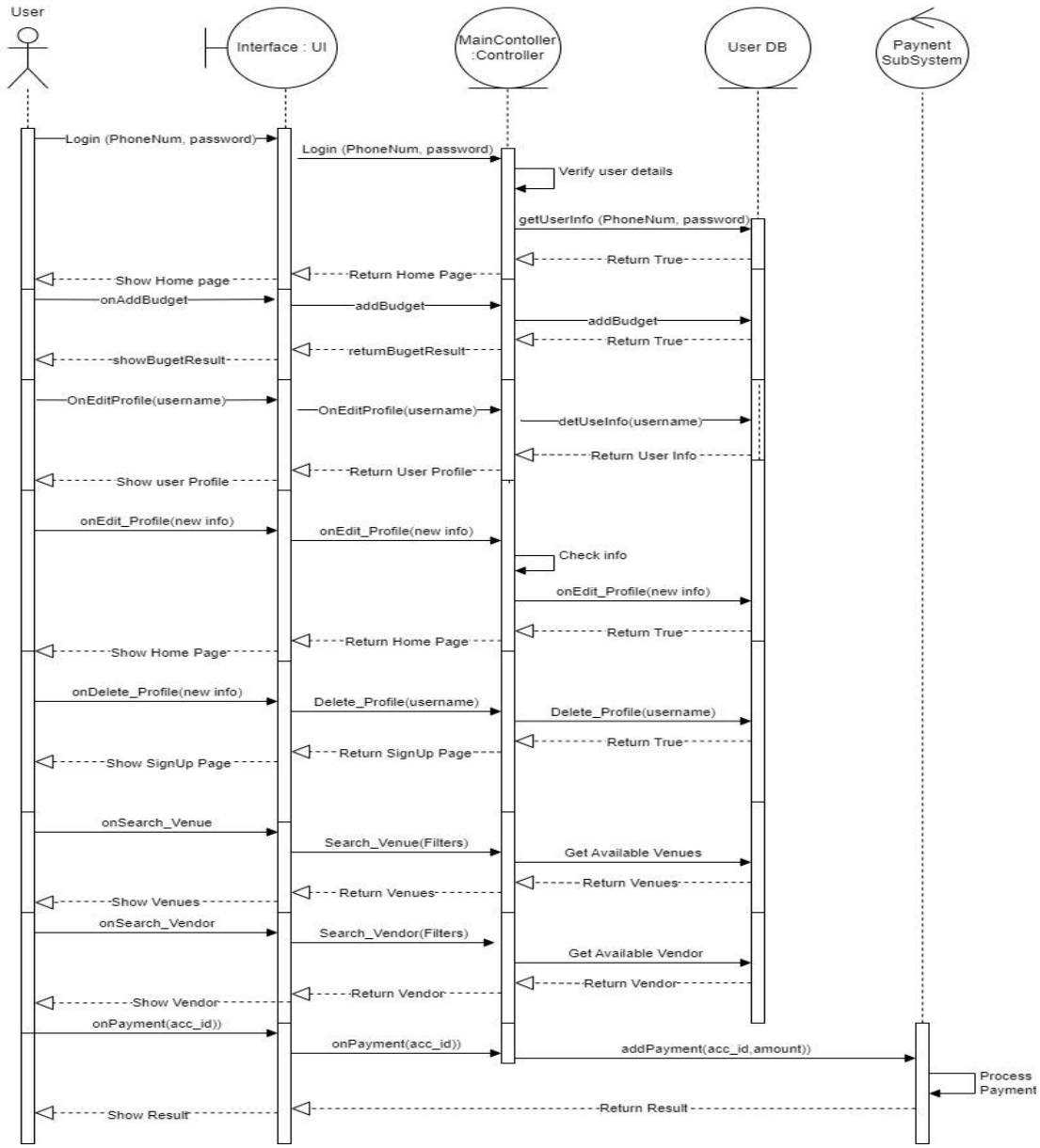

Figure 7 Design level sequence diagram

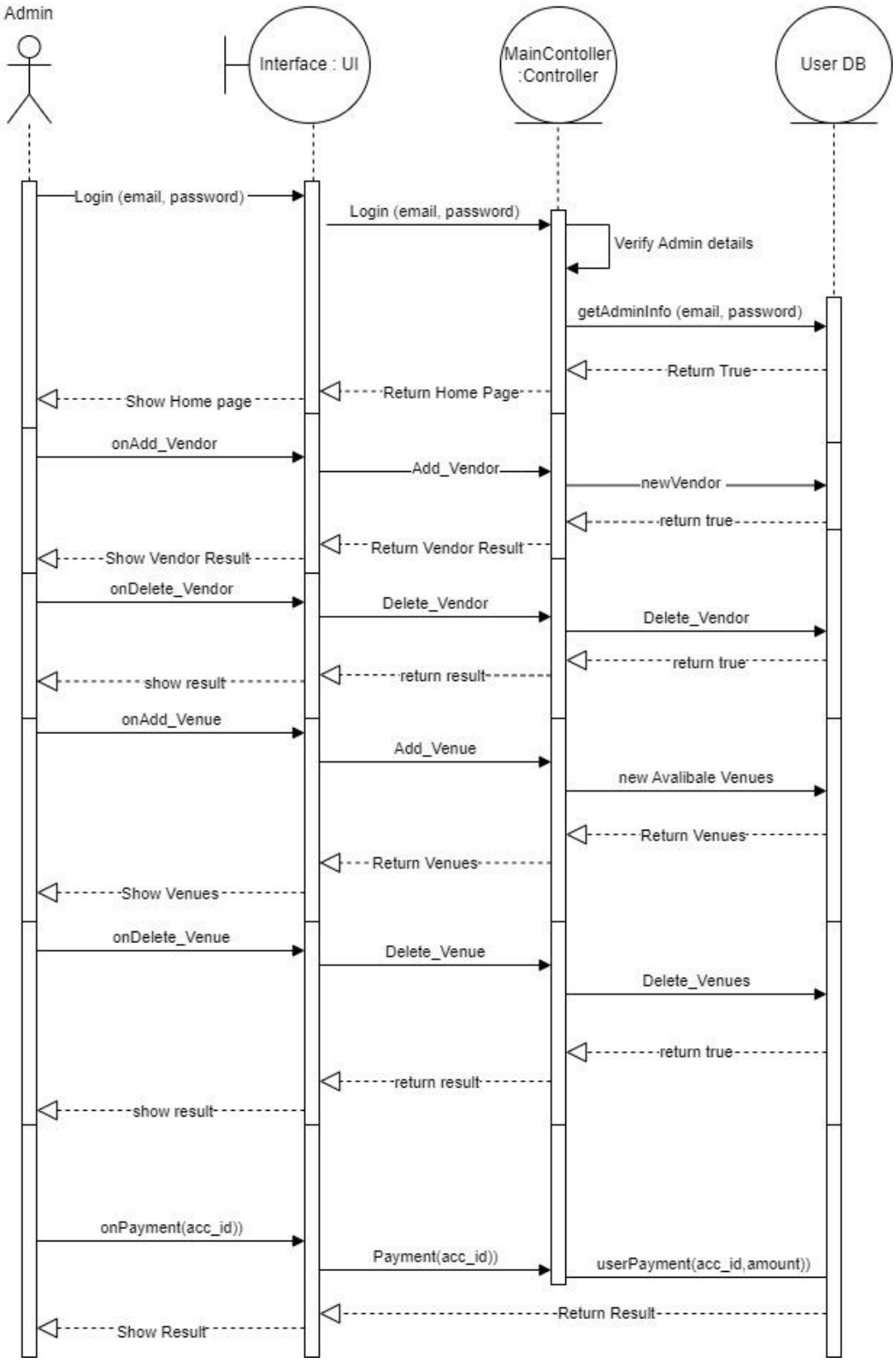

Figure 8 Design level sequence diagram

5.6 Complete class diagram:

A complete class diagram offers a comprehensive representation of a system's architecture, showcasing various classes and their relationships. It serves as a detailed model that identifies the objects integral to constructing the system. This diagram is valuable for software developers, providing a clear insight into the system's structure and facilitating a deeper understanding of its functioning.

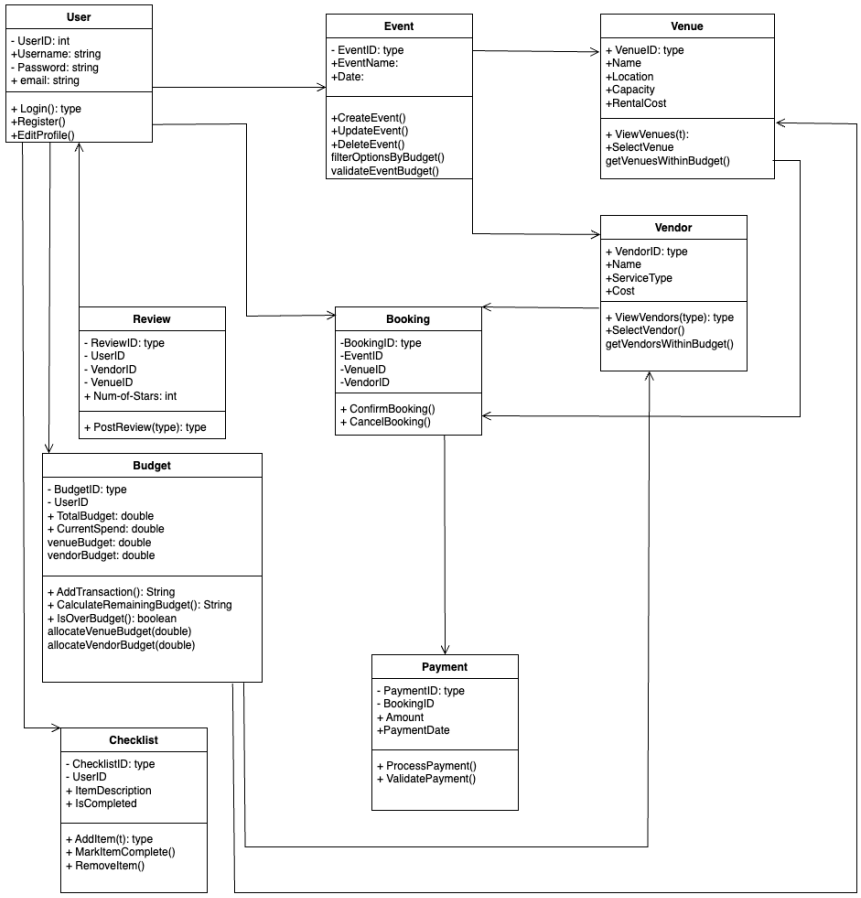

Figure 9 Complete class diagram

5.6 Entity-relationship diagram.

The entity-relationship diagram serves as a comprehensive model, delineating the various entities present in the system and highlighting their interconnections. Offering a lucid depiction, it affords a clear understanding of the data utilized within the system and its relational dynamics. This diagram proves invaluable to database designers, aiding in the identification of diverse entities and elucidating the intricate web of relationships among them. Additionally, it plays a crucial role in guaranteeing the accurate structuring and organization of data within the system.

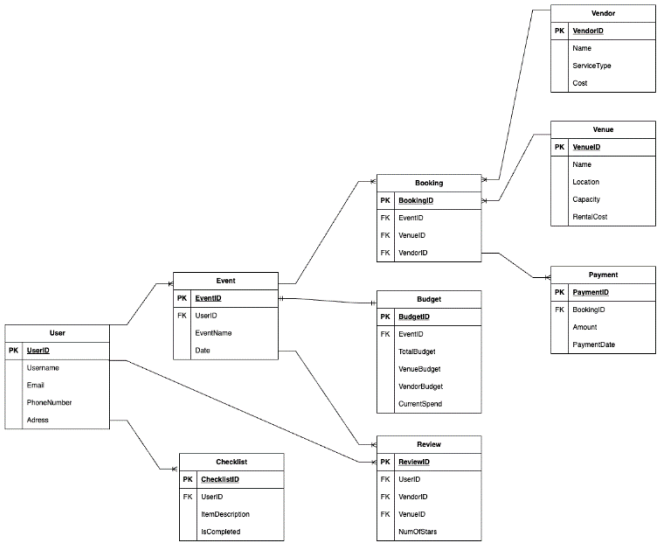

Figure 10 Entity-relationship diagram

CHAPTER 6:

DISCUSSION & CONCLUSION

6.1 Discussion:

The event planner project aims to revolutionize the way individuals plan and organize events, providing a comprehensive and user-friendly platform to streamline the intricate process of event management. The crux of the project lies in addressing existing gaps in the event planning app market by offering a more comprehensive solution. The novelty of this project is embedded in its unique features, such as support for managing multiple events concurrently, collaboration tools, and an emphasis on user-friendly interfaces. Unlike many existing event planning apps, the proposed application enables seamless coordination between event planners and service providers, contributing to a more efficient and collaborative event planning experience.

The importance of the project is underscored by its potential to revolutionize the event industry, saving time and resources while improving the overall quality of events. The current applications of the event planner project span across corporate events, weddings, conferences, and social gatherings. Its adaptability to diverse event types sets it apart in the market, catering to the needs of a broad user base.

Looking towards the future, further enhancements and expansions can be derived from this project. Integrating real-time data analytics to track and respond to emerging trends during an event, incorporating augmented reality for virtual event experiences, and enhancing collaboration features for remote planning are potential avenues for future development. Additionally, the system can evolve to include predictive analytics, helping event planners anticipate challenges and opportunities based on historical data and industry patterns. As the events landscape continues to evolve, the project can also explore partnerships with vendors, venues, and other stakeholders to create a more interconnected and seamless event planning ecosystem. Continuous updates and adaptations will ensure that the event planner remains at the forefront of the industry, providing users with cutting-edge tools to create unforgettable experiences.

6.2 Conclusion:

In conclusion, our Event Planner app has been developed with a focus on addressing the challenges inherent in traditional event planning processes. By offering a comprehensive solution that integrates budget management, venue selection, service provider collaboration, and dynamic checklists, our app aims to streamline and enhance the entire event planning experience. The importance of our project lies in its ability to provide users with a centralized platform that simplifies the complexities of event organization and ensures a more efficient, user-friendly approach.

The Event Planner app is designed to fill the gaps present in existing event planning tools by offering a one-stop solution for users to plan, coordinate, and manage all aspects of their events. The future trajectory of our project involves expanding its reach to other markets, leveraging machine learning algorithms for more personalized recommendations, and introducing additional features, such as the ability to search for venues and effectively track event success.

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APPENDIX: Glossary

A	Definition
Android Studio	Google's software development kit (SDK) for building Android applications, including a code editor, templates, and testing tools.
B	
Budget	A budget is a financial plan that outlines estimated revenues and expenses over a specific period, providing a framework for allocating resources and guiding financial decision-making
E	
Event Management	Event management involves the planning, coordination, and execution of various tasks to ensure the successful organization and implementation of an event, considering aspects such as logistics, scheduling, and attendee experience.
Event	An event is a planned and organized occurrence, often public or social in nature, designed to bring people together for a specific purpose, celebration, or activity.
G	
GANTT Chart	A bar chart illustrating project schedules and tasks over time.
GPS	GPS stands for Global Positioning System, a satellite-based navigation system that enables users to determine their precise geographic location
I	
Interface design	Involves creating the visual and interactive elements of a system, such as websites or software applications, to ensure a user-friendly and aesthetically pleasing experience that facilitates effective communication between users and the system.
IDE	IDE stands for Integrated Development Environment, which is a software suite that combines various tools and features to facilitate the entire process of software development
J	
JAVA	Java is a versatile, object-oriented programming language known for its portability and platform independence

O	
OTP	OTP stands for One-Time Password, a temporary and unique code used as an additional layer of security, often sent to a user's mobile device or email, to authenticate and verify their identity during online transactions or login processes.
P	
Project Scope:	Project scope refers to the detailed outline or boundaries that define the extent and objectives of a specific project, including deliverables, timelines, and resources.
Plan	A plan is a detailed proposal or method for achieving a specific goal, outlining the necessary steps, resources, and timeline to guide the implementation of the intended course of action
Platform	A platform is a multifunctional infrastructure or software that provides a foundation for various applications, services, or technologies to operate and interact within a unified environment.
S	
Sequence Diagram	Depicts object interactions over time, showing the sequence of messages between objects to carry out a scenario.
U	
UI	User Interface: Everything designed for user interaction in an information device, including display screens, keyboards, and mouse, and the appearance of a desktop or application.
User-friendly	User-friendly describes a design, interface, or system that is easy to use, intuitive, and accessible, promoting a positive and efficient experience for the end user.