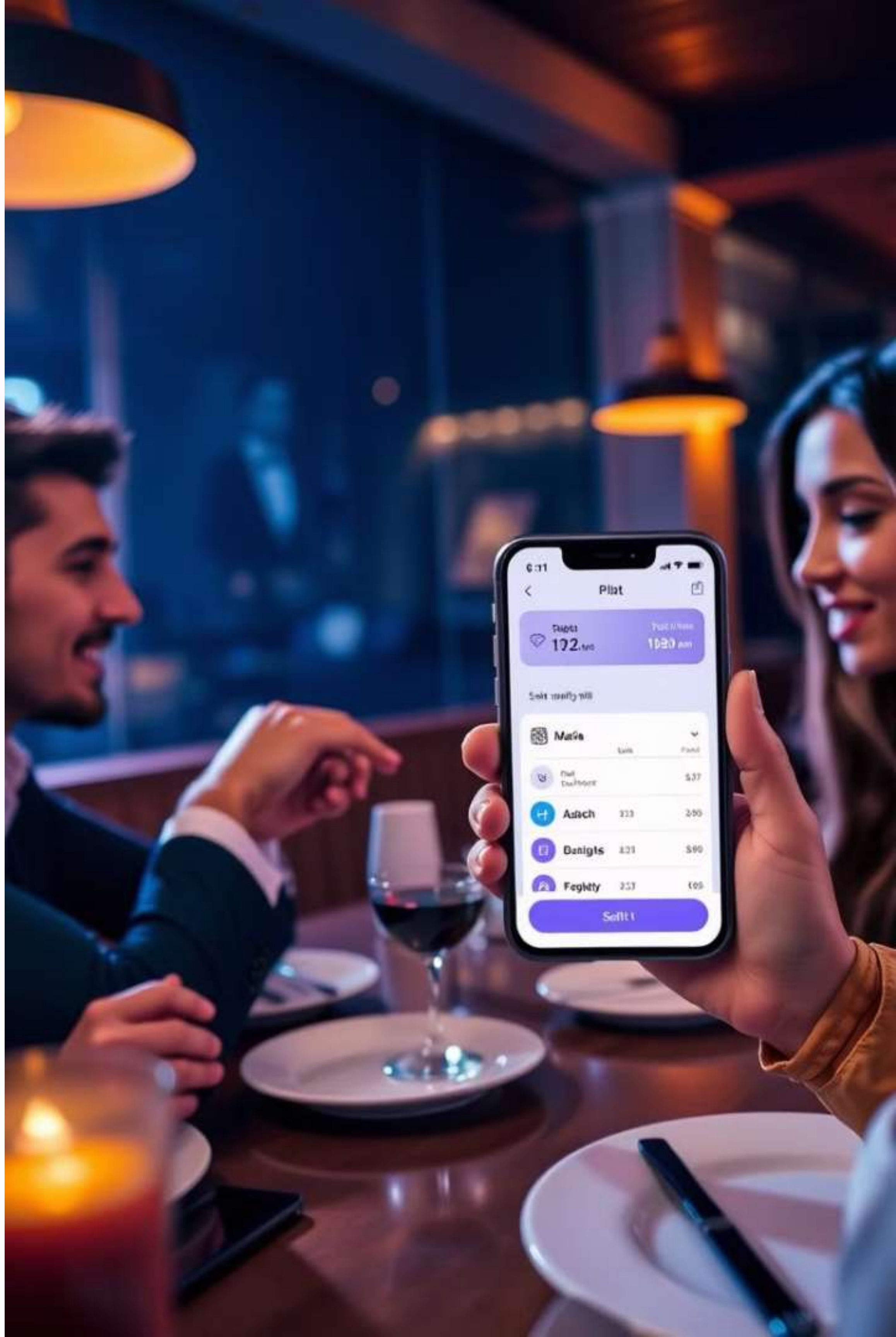
Bill Splitter Application

The Bill Splitter Application is designed to streamline how teams handle shared costs, ensuring transparency and efficiency. It simplifies the process process of adding expenses, dividing costs among members, and tracking settlements, fostering better financial accountability within teams.



Introduction

Efficient Expense Management

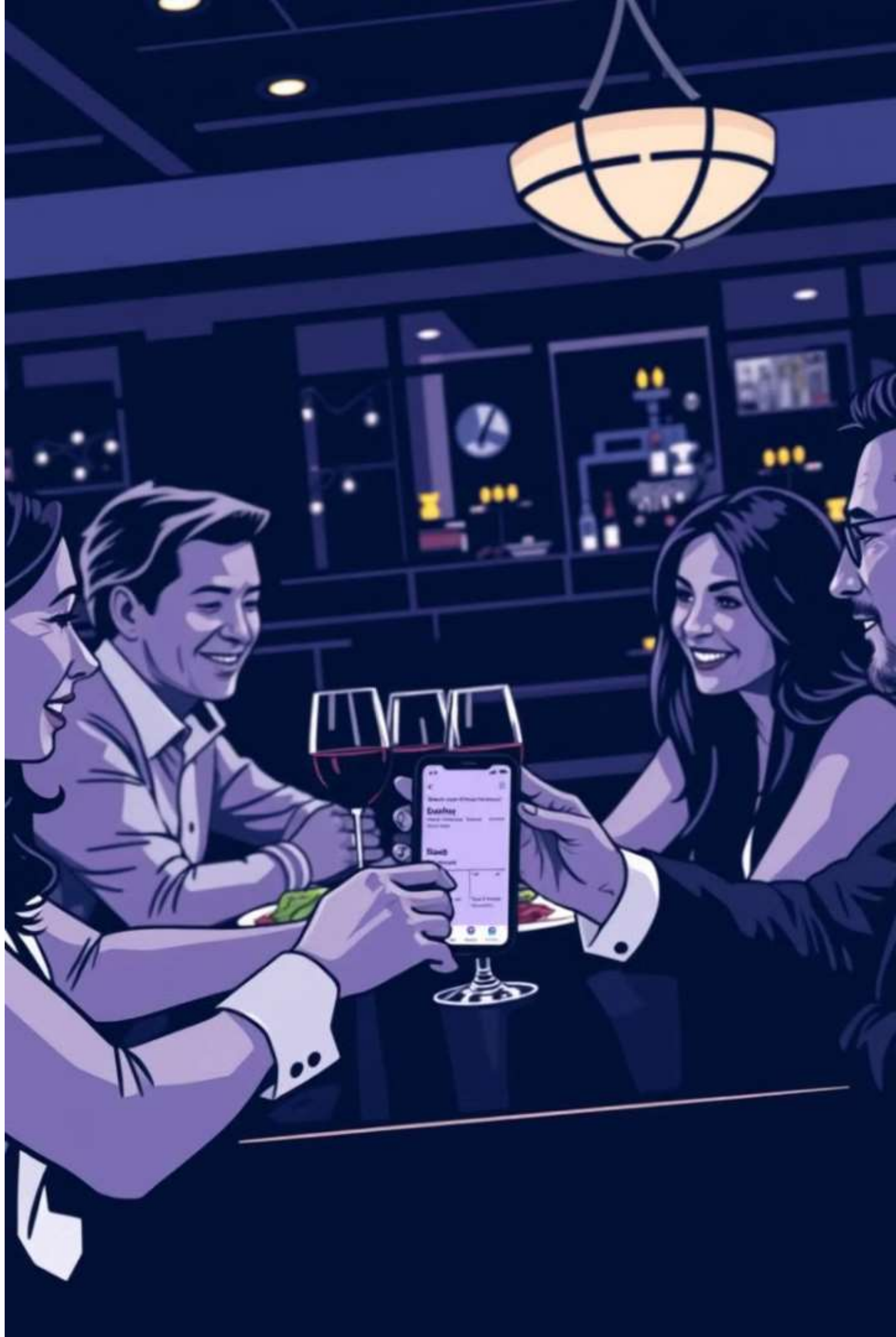
The **Bill Splitter Application** simplifies team expense management by **automating calculations** and **eliminating disputes**, ensuring a hassle-free experience.

Cost Distribution

Users can **add expenses, split costs** among team members, and **track settlements in real-time**, making expense management seamless and accurate.

Transparency and Accountability

With a structured approval system, the app ensures **clear tracking of expenses**, **prevents unauthorized settlements**, and **promotes financial clarity** within teams.



Key Features

User Authentication

Secure authentication using JWT to protect user data.

Team Management

Create and join teams for organized expense tracking.

Expense Splitting

Add expenses and split costs easily among team members.

Payment Verification

Request and verify payments with status updates.

Technology Stack

Frontend

React.js: A JavaScript library for building user interfaces, known for its component-based architecture.

Tailwind CSS: A CSS framework for rapid UI development.

Backend

Spring Boot: A framework that simplifies building Java-based web applications.

JWT Authentication: JSON Web Token for secure authentication and authorization.

Database & API

MySQL: A relational database management system for storing application data.

RESTful services: API design using Spring Boot for seamless communication.

User Flow

1
Authentication
Register/Login using JWT authentication for secure access.

2
Team Management
Create or Join a Team to start sharing expenses.

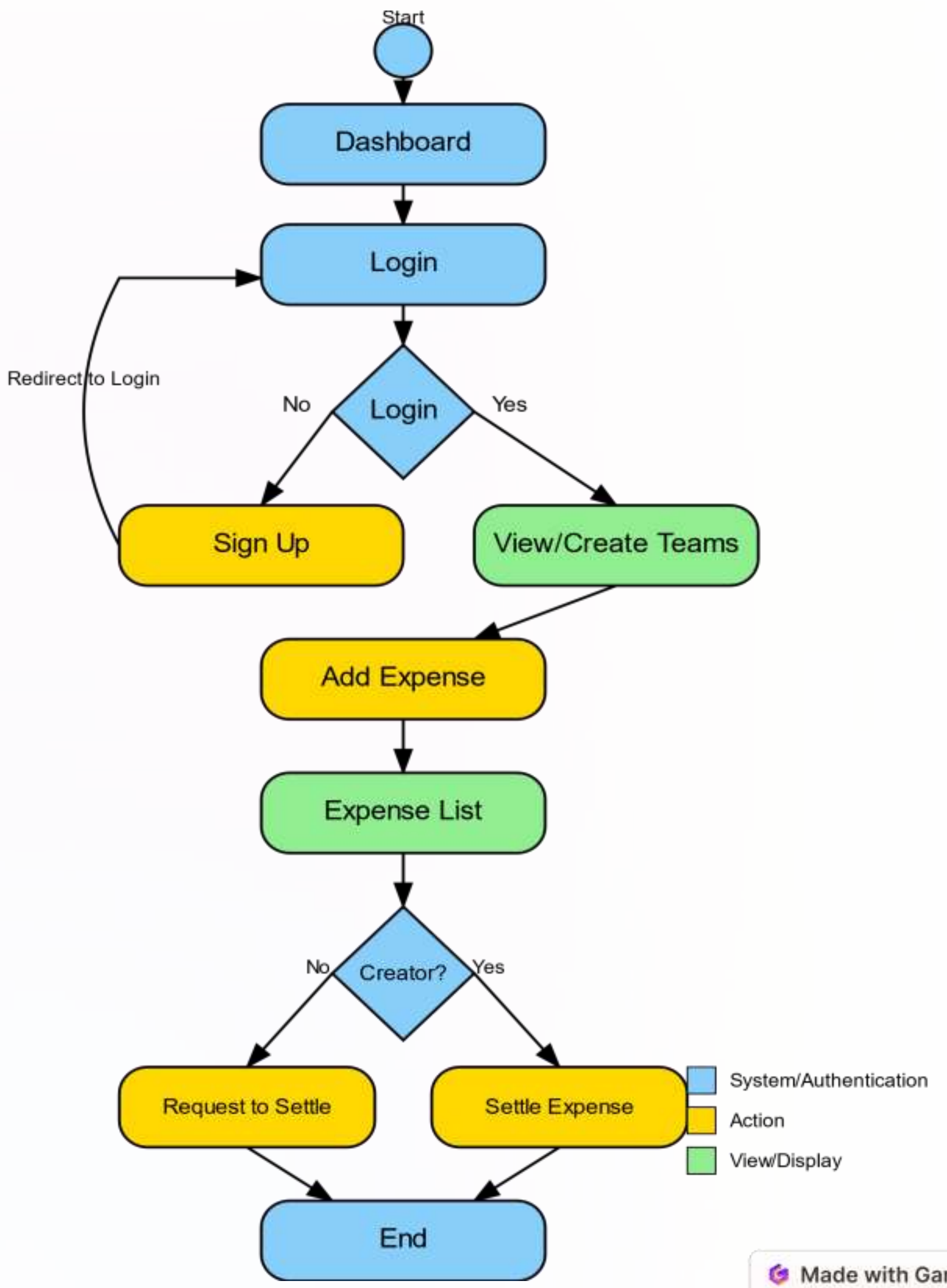
3
Expense Addition
Add Expenses and Assign Splits among team members.

4
Payment Request
Request Payments by Members involved in expense .

5
Verification & Settlement
Only the team creator can **settle expenses** while Other members can **request settlement**.

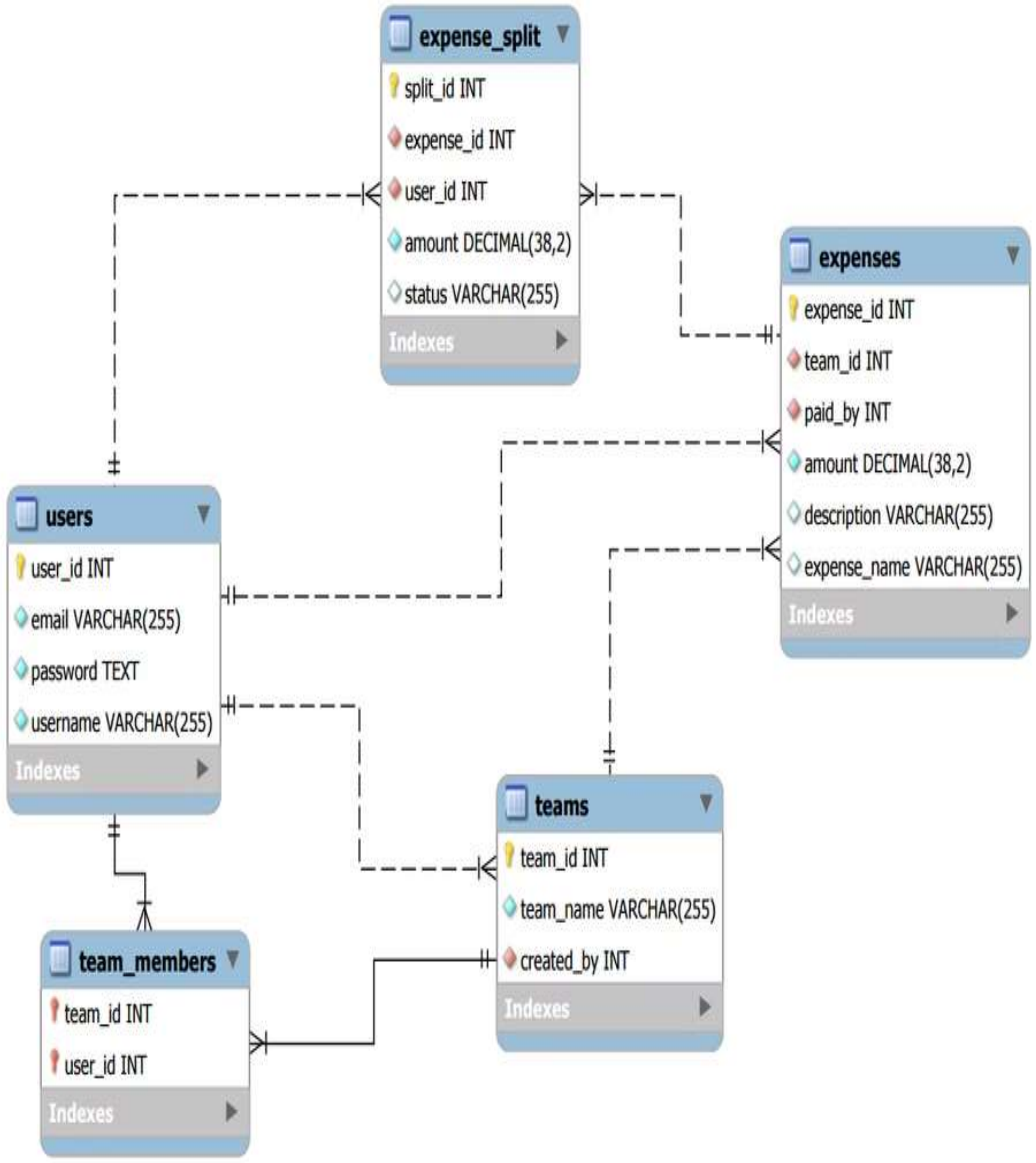
Activity Diagram

This activity diagram represents the structured workflow of the Bill Splitter Application, ensuring a seamless user experience. The process starts with user authentication, where users must log in or sign up to access the dashboard. Once logged in, they can create a team, invite members, or join existing teams. Within a team, users can add expenses, view the expense list, and track payments. Only the team creator can settle expenses, while other members can request settlements. The system maintains a record of all transactions, ensuring transparency and efficient expense management



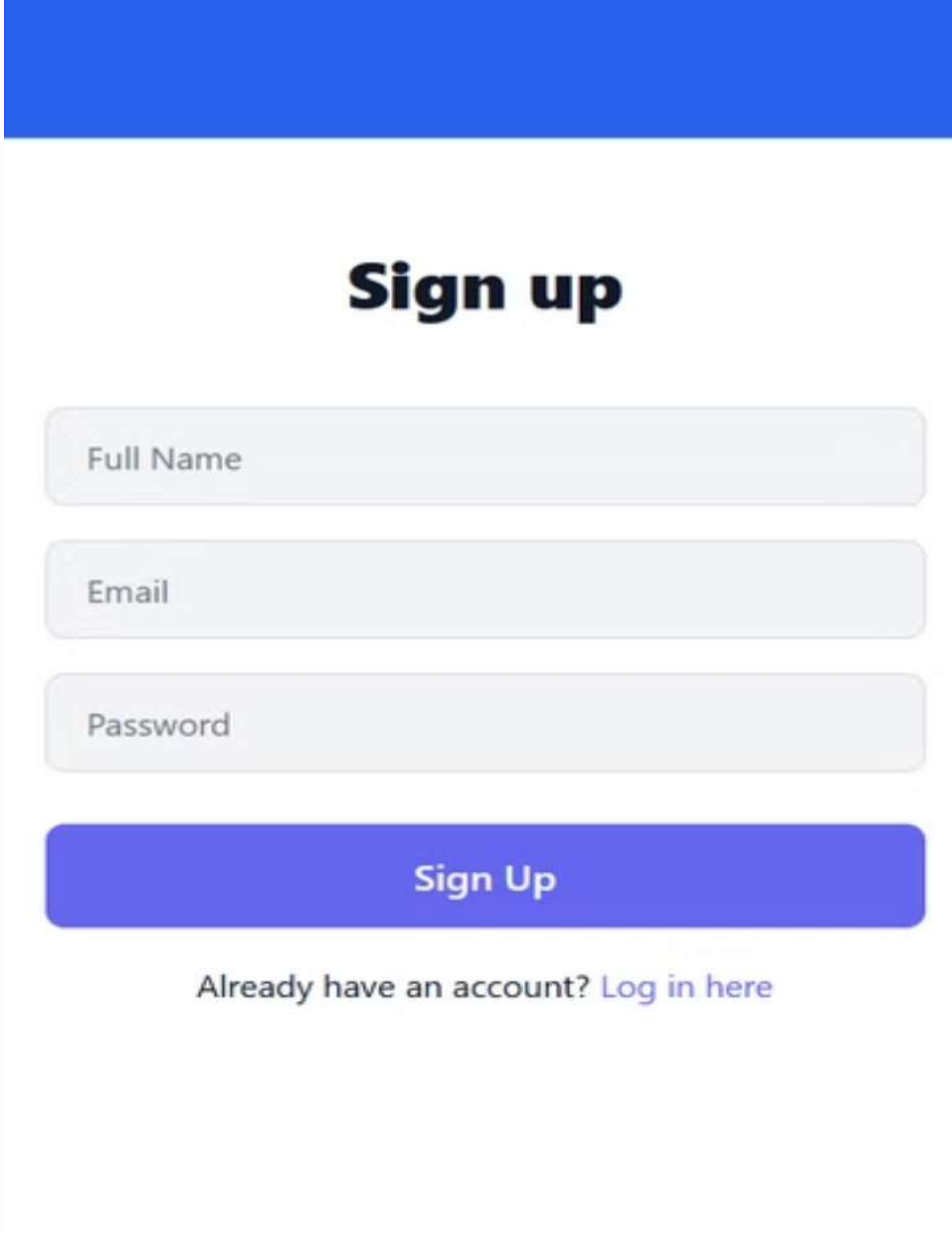
Database Diagram

The database diagram visualizes the structure and relationships between key tables in the Bill Splitter Application, ensuring organized and efficient data management. It outlines how users, teams, and expenses are interconnected, maintaining data integrity and enabling smooth operations. The **Users** table stores user details and authentication data, linking to the **Teams** table, where team information and memberships are managed. The **Expenses** table records shared costs, associating each expense with a specific team and its contributing members. The diagram clearly defines how expenses are split, tracked, and settled, ensuring transparency and accurate financial management within teams.



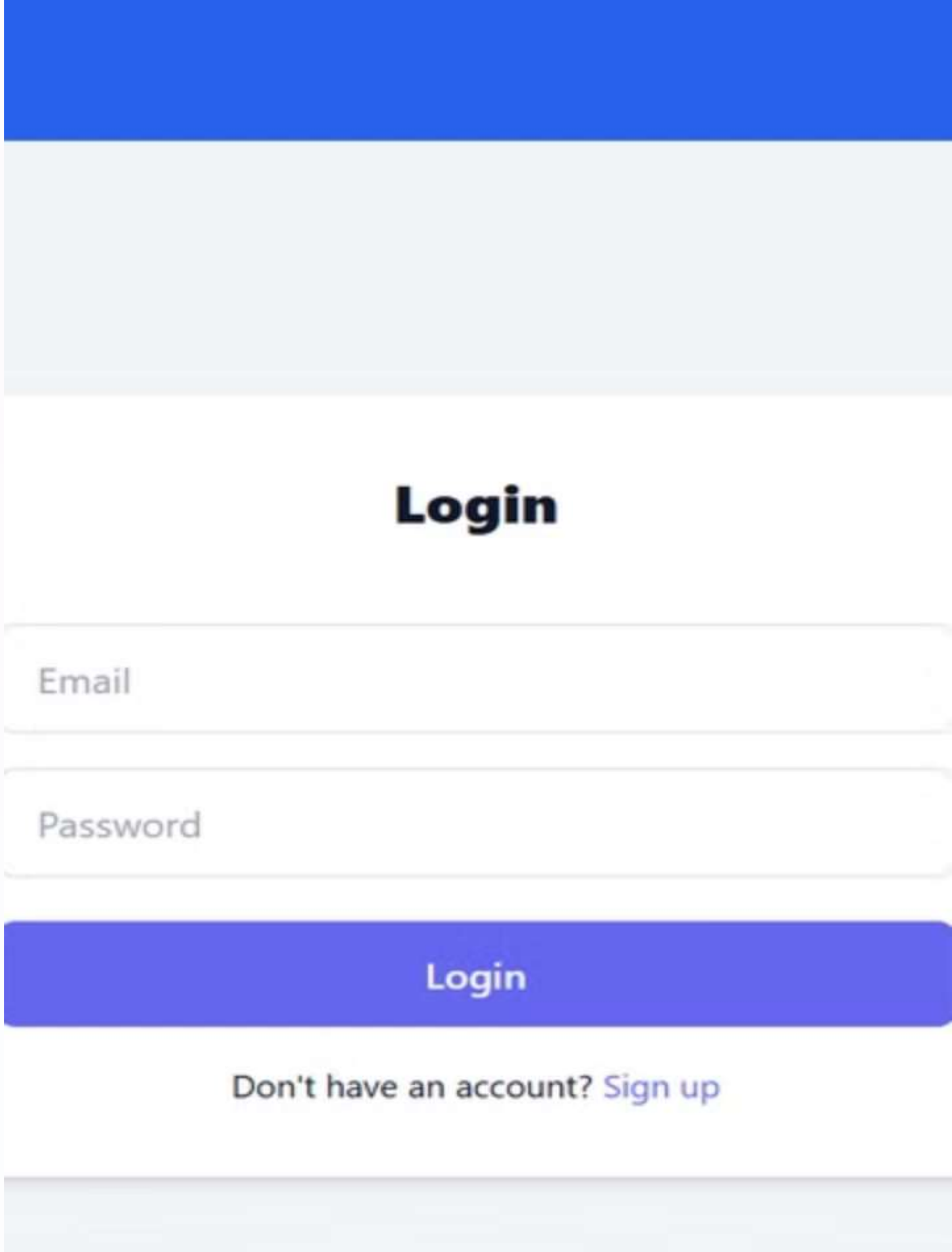
Sign Up

The sign-up page provides a simple and user-friendly interface, allowing new users to create an account effortlessly. By entering basic details such as name, email, and password, users can quickly register and gain access to the application.



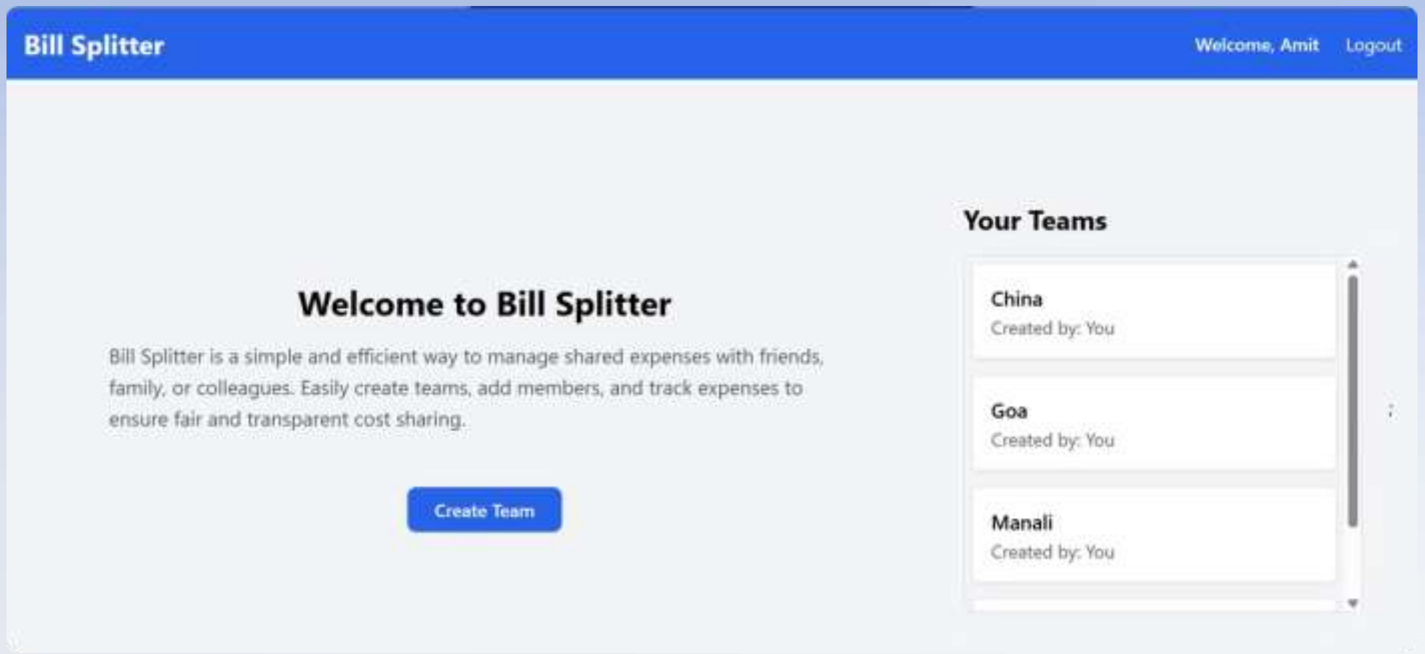
Login Page

The login page provides a simple and secure way for users to access their accounts. With a clean design and clear input fields, users can quickly enter their credentials and log in without hassle. Security is a priority, ensuring that authentication is handled safely while maintaining a seamless user experience. The straightforward process minimizes delays, allowing users to access their teams and manage expenses efficiently.



Team List

The **Team List** feature allows users to **view and manage all their teams** in one place. It ensures a smooth expense-tracking process by keeping everything organized and accessible



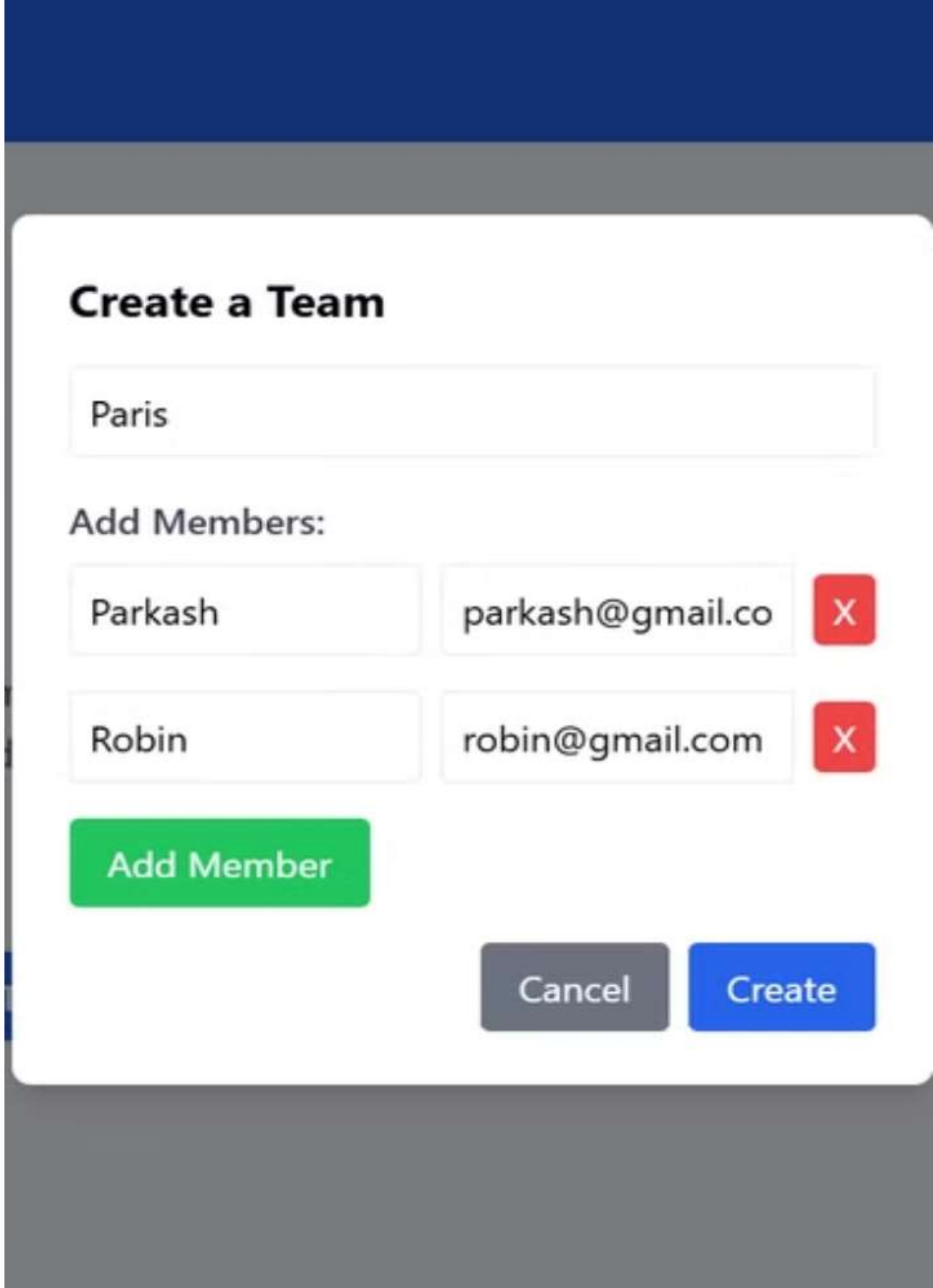
Create Your Team

Seamless Setup

Easily create a team from the **dashboard** after logging in. Our simple interface allows users to **enter a team name and add members** quickly, making the setup process hassle-free.

Customizable Settings

Define **team-specific expense** and manage **settlement permissions**, ensuring that only the team creator can **settle expenses** while others can request settlements.



Adding Expense

1 Quick & Easy Entry

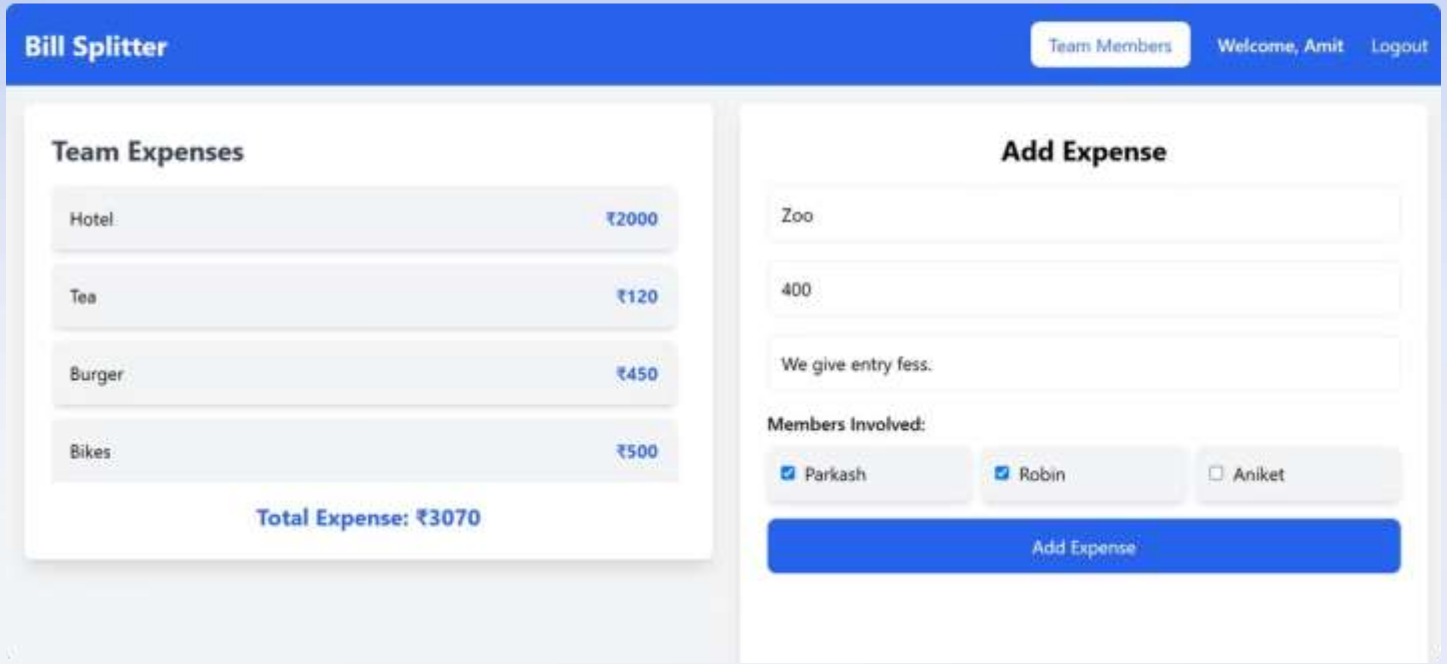
Effortlessly add expenses within a team by specifying the **amount, description, and members involved**. Our intuitive interface ensures a seamless process.

2 Flexible Expense Splitting

Choose how to split expenses – **equally among all members** or **customize shares** based on contributions.

3 Transparent Tracking

View a **detailed list of all expenses** within the team, ensuring clarity on **who paid, who owes, and pending settlements**



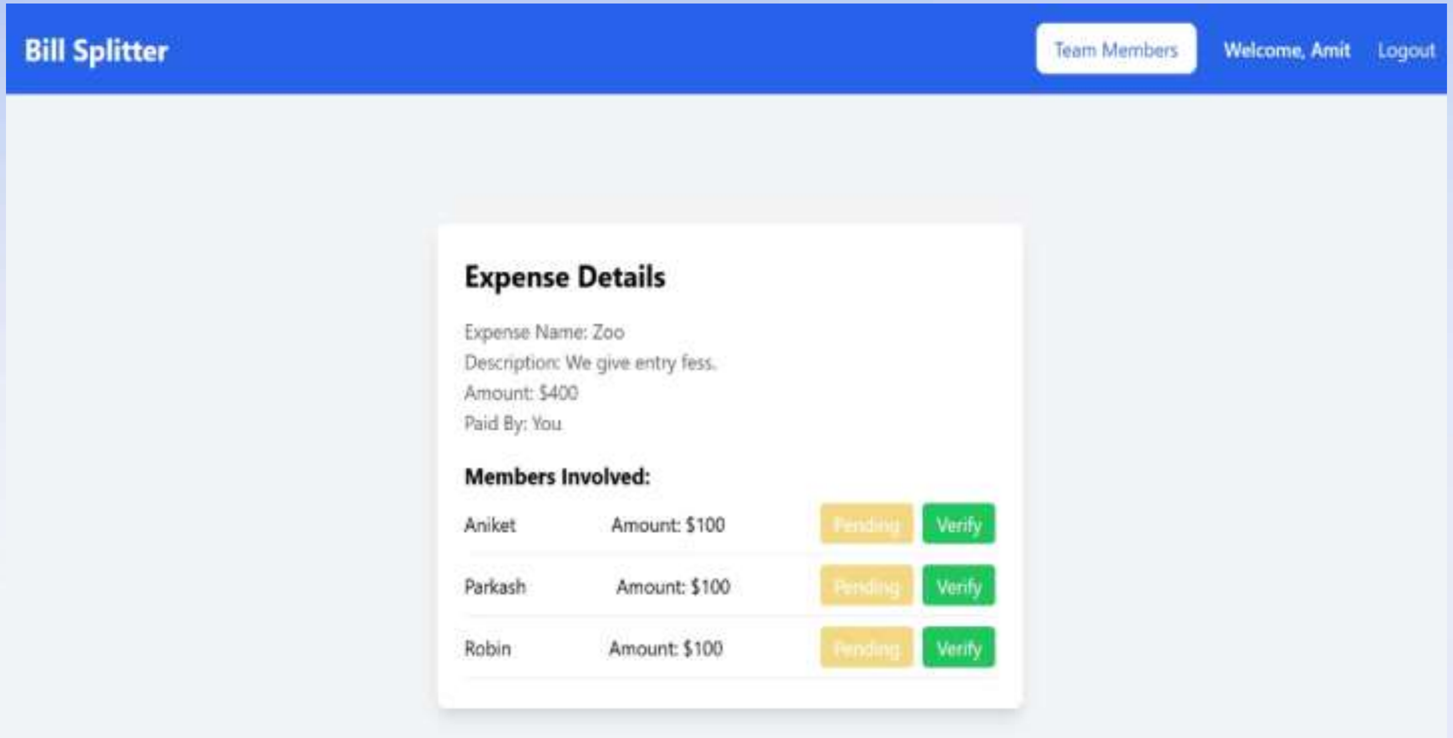
Detailed Expense Insights

Comprehensive Overview

Get a clear view of **all team expenses**, including **who paid, who owes, and the amount split among members**.

Track Pending & Settled Expenses

Easily monitor **pending payments** and **settled transactions** to maintain financial transparency within the team.



Streamlined Approval Workflows

Expense Submission

Users can **add expenses** by specifying the amount, description, and selecting involved members. **Receipts or additional details** can be attached for better tracking.

Review Process

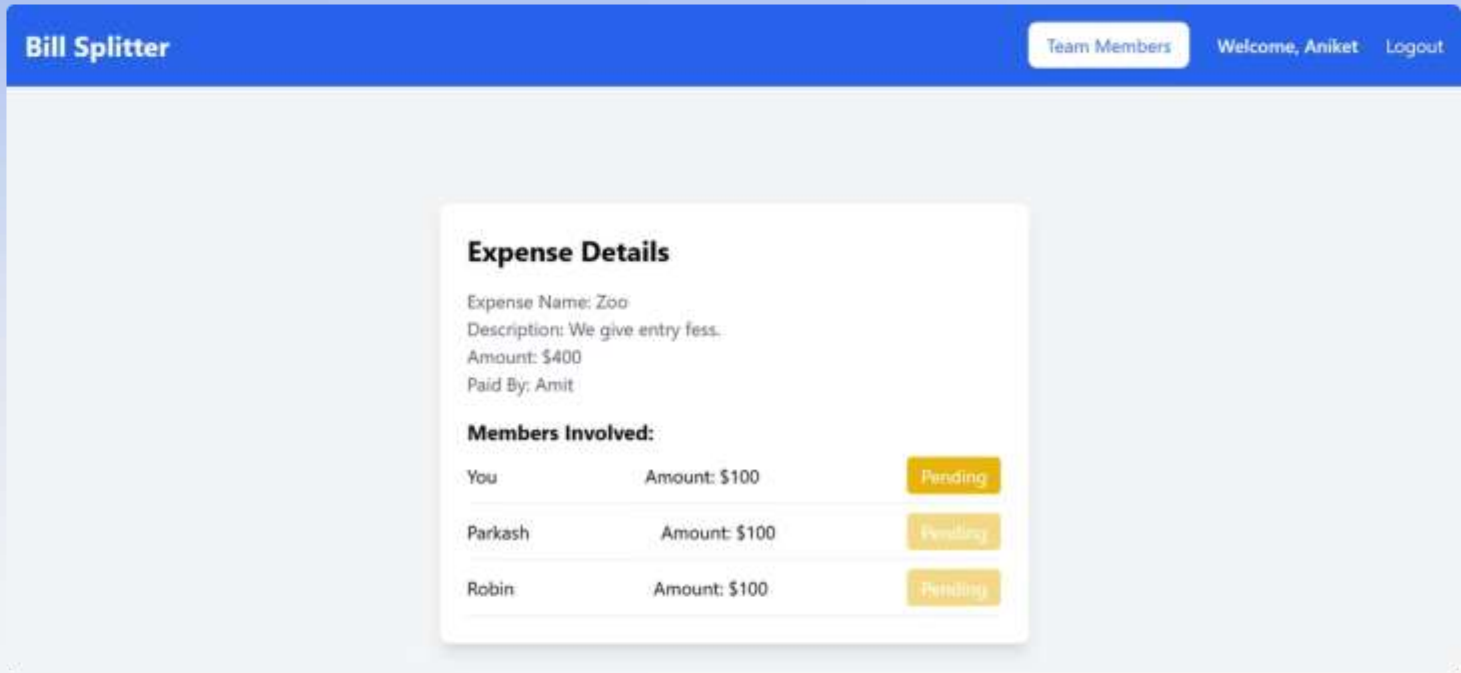
The **team creator** reviews all submitted expenses to ensure accuracy before approving settlements.

Approval or Rejection

Only the **team creator** can **approve or reject settlement requests**, while other members can request settlements.

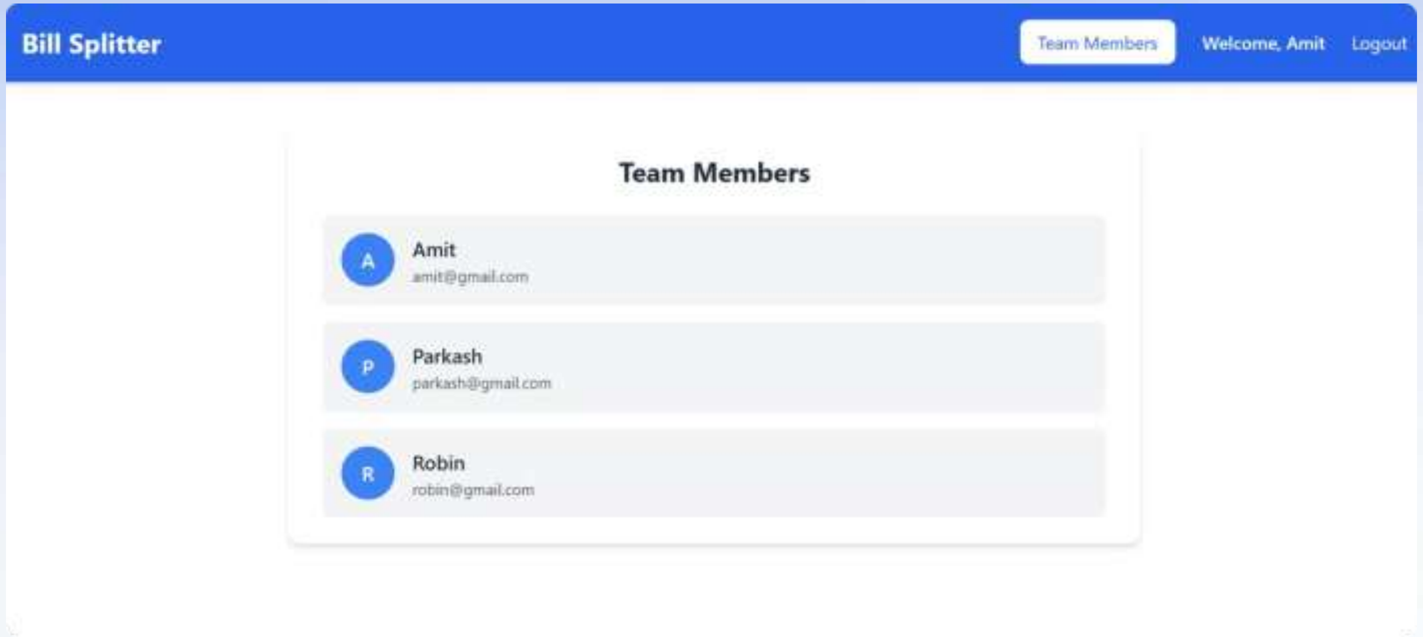
Tracking

All **submitted expenses, pending requests, and settled amounts** are logged, providing a **detailed expense history**



Team Members

The team members section displays a list of all members in a team, showing only their name and email. Users can view who is part of the team but cannot edit or manage other members. This ensures transparency while keeping the focus on expense tracking and management.



Thank You!

Thank you for taking the time to explore our team expense management app. We are confident that our solution will streamline your expense tracking process, improve transparency, and save you valuable time.