

PROJECT TITLE: EASYPARK

Team II (Batch - III)

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Synopsis

Project Summary

EasyPark is a convenient parking system designed to make parking easier in places like colleges and malls. It allows users to easily find, book, and pay for parking spots through a simple app. The system also helps administrators manage parking spaces efficiently, ensuring that all spots are used well. Users receive notifications about their bookings, and they can navigate directly to their parking spot using the app. For those in charge, EasyPark offers a dashboard to monitor parking usage and generate reports for better decision-making. Overall, it simplifies parking for both users and administrators.

Application Modules

1. User Authentication

- **Sign In/Sign Up:** Users can easily create a new account or log into an existing one to access the app's features. This ensures that their parking activities are personalized and secure.
- **Password Recovery:** If users forget their password, they can quickly recover it through a simple process, ensuring they always have access to their account.
- **Profile Management:** Users can update their personal information, such as their name, email, or phone number, to keep their account details accurate and up-to-date.

2. Parking Management:

- **Add, Edit, and Manage Parking Locations:** Administrators can add new parking locations or update existing ones by specifying the exact coordinates. This helps ensure that users always have access to accurate and up-to-date parking options.
- **Define Parking Spots:** Admins can specify which parking spots are available for different types of vehicles, such as bikes and cars. This helps users easily find the right spot for their vehicle.

3. Booking System:

- **View Available Parking Locations:** Users can browse through a list of parking locations and see which spots are currently available. This makes it easy to find a convenient place to park.
- **Select Parking Spot:** Users can choose a specific spot for their vehicle, whether it's a bike or a car. This ensures they get a spot that suits their needs.

- **Choose Time Slot and Date:** Users can select the exact time and date they need the parking spot. This flexibility helps them plan their parking around their schedule.

4. Billing and Payment:

- **Calculate Billing:** The app automatically calculates how much users need to pay based on how long they park. This ensures transparency and accuracy in billing.
- **Integrated Payment Gateway:** Users can pay for their parking securely through the app, using a trusted payment system. This makes the process quick and convenient.
- **Generate and Send Receipt:** After payment, users receive a receipt, either through email or within the app, confirming their booking. This gives them a record of their transaction.

5. Notifications:

- **Email and In-App Notifications:** Users receive notifications for important events, such as booking confirmations or reminders about their parking time. This keeps them informed and on track.

6. Booking Management:

- **View Bookings:** Users can easily see all their parking bookings, including those that are upcoming, currently in progress, or completed. This helps them keep track of their parking activities.
- **Cancel Bookings:** If plans change, users can cancel their parking bookings through the app. This flexibility allows them to adjust their reservations as needed.

7. Admin Dashboard:

- **View and Manage Transactions:** Administrators can monitor and manage all financial transactions related to parking bookings. This helps ensure that everything runs smoothly and efficiently.
- **Visualization of Parking Data:** Admins can view detailed information about parking usage, including which spots are most popular. This data helps them make informed decisions about managing parking resources.