Project Name: The ultimate bike rental experience.

Introduction:

The ultimate bike rental experience is your go-to place for bike rentals! It's designed for both admins managing the bikes and users looking to rent one easily.

Project description:

The ultimate bike rental experience is a comprehensive bike rental platform that connects users with a wide range of bikes available for rent. Admins can efficiently manage inventory, handle user accounts, and oversee rentals, ensuring a smooth experience for everyone. Users can easily browse, book, and enjoy their biking adventures, making it simple to explore the great outdoors

**Key Features and Functionalities**

* **Home Page**:
  + View available bikes for rent.
  + Apply coupons for discounts.
  + Spin a wheel for additional discount offers.
* **All Bikes Page**:
  + View a list of all available bikes.
  + Navigate to the bike detail page for more information.
  + Book a bike by selecting the start time and proceeding with payment.
* **User Dashboard**:
  + View and update user profile details.
* **My Rentals**:
  + View rentals under "Paid" and "Unpaid" tabs.
  + Pay for unpaid rentals directly from the list.
* **About Page**:
  + Learn about the platform's mission and vision.
  + View contact information and location details.

**Admin Features**

* **Bike Management**:
  + Create, update, and delete bike listings.
  + Manage bike returns and calculate rental costs.
* **User Management**:
  + Promote users to admin.
  + Delete user accounts.

### These features make the platform user-friendly and efficient for both regular users and admins Technology Stack

#### **Frontend:**

* **React**: For building user interfaces.
* **Redux Toolkit**: For state management.
* **RTK Query**: For handling data fetching and caching.
* **React Hook Form**: For managing form state and validation.
* **Ant Design (Antd)**: For pre-built UI components.
* **Tailwind CSS**: For utility-first styling.
* **Daisy UI**: For additional UI components based on Tailwind.

#### **Backend:**

* **Express**: For building the server and API endpoints.
* **MongoDB**: As the database for storing bike, user, and rental information.
* **Mongoose**: For object data modeling (ODM) with MongoDB.
* **MongoDB Aggregation**: For advanced data processing and querying.

#### **Other:**

* **TypeScript**: For type safety and better code maintainability across both frontend and backend.

### Installation Step Installation Steps for Bike Rental Project

1. **Clone the Repository**: Download the project by cloning it using Git. Navigate to the project directory.
2. **Setup Backend**:
   * Navigate to the backend folder.
   * Create a .env file to store environment variables like the MongoDB connection string and JWT secret.
   * Install necessary backend dependencies like Express, Mongoose, jsonwebtoken, etc.
   * Run the backend server using nodemon in development mode.
3. **Setup Frontend**:
   * Navigate to the frontend folder.
   * Create a .env file to store the API URL for connecting to the backend.
   * Install frontend dependencies like React, Redux Toolkit, RTK Query, Ant Design, Tailwind CSS, etc.
   * Run the frontend server to start the development environment.
4. **Run the Project**:
   * Start the backend and frontend servers using the respective npm run start:dev commands.
   * The backend will run on http://localhost:5000, and the frontend will run on http://localhost:5173.

### Configuration

PORT=5000

DATABASE\_URL=mongodb+srv://bike\_rental:T4dcezZ96MGo2U3h@cluster0.vthybgs.mongodb.net/?retryWrites=true&w=majority&appName=Cluster0

CREATE\_TOKEN\_SECRATE=dsfhgklsdfjjjjjjjjjjjjjjjjjjjjjjjj345432kfhjk

EXPIRES\_TOKEN=10d

NODE\_ENV=development

SALT=10