**Weekend Plan (Saturday & Sunday) to Achieve 30% Progress**

Since you're the most efficient team member and the others have exams, I'll distribute the workload in a **2:1:1 ratio**.

**Saturday**

**Sri Krishna**

**1. Backend Setup (FastAPI & PostgreSQL)**

* Set up a FastAPI project.
* Configure PostgreSQL and SQLAlchemy ORM.
* Create .env for database credentials.
* Implement **User Model** (Customer, Admin, Merchant).

**2. Basic User Authentication**

* Implement JWT-based authentication (login, signup, logout).
* Secure routes using authentication.

**3. API for Wallet Transactions**

* Implement **wallet top-up API**.
* Implement **wallet balance retrieval API**.
* Define database schemas for wallet, transactions, and users.

**Shashank**

**1. Database Schema Design**

* Design tables for users, wallets, transactions, and rewards.
* Set up foreign key constraints.
* Ensure basic indexing on frequently queried fields.

**Chakri**

**1. Frontend Setup (React)**

* Set up a **React project with Vite**.
* Install necessary packages (react-router-dom, axios, tailwind or material-ui).
* Create **basic UI for user authentication (login & signup forms).**
* Set up **React Context API for authentication state management**.

**Sunday**

**Sri Krishna**

**1. Purchase Transactions**

* Implement **purchase transaction API** (deduct from wallet, add to merchant account).
* Implement **reward point allocation logic**.
* Set up **triggers** for automatic reward point calculation.

**2. Rewards System**

* Implement **reward redemption API** (convert points to cashback/discount).
* Ensure **reward reversal** on refunds.
* Write basic test cases for rewards & transactions.

**Shashank**

**1. Stored Procedures & Triggers**

* Write **stored procedures for wallet transactions**.
* Write **triggers for automatic cashback & refunds**.

**Chakri**

**1. Connect Frontend to Backend**

* Use axios to call authentication APIs (signup & login).
* Display **wallet balance & transactions** on the frontend.
* Test **API calls via Postman and frontend integration**.

**By Monday:**

✅ **User authentication (backend & frontend)**  
✅ **Wallet transactions API working**  
✅ **Basic rewards system implemented**  
✅ **Stored procedures & triggers setup**  
✅ **Frontend can interact with authentication & wallet APIs**