



Mid-Level Full-Stack Engineer Assessment

Scenario:

An e-commerce store is creating a loyalty program where customers unlock achievements and earn badges for their purchases. Your task is to build a full-stack feature for this program.

Backend Tasks:

1. Achievements & Badges Logic:

- Implement the core logic to listen for user purchase events and unlock the relevant achievements and badges.
- When an achievement or a new badge is unlocked, a relevant event (AchievementUnlocked or BadgeUnlocked) should be fired.
- For the BadgeUnlocked event, trigger a cashback payment of 300 Naira. You can use a mock payment provider or a simple log to simulate this.

2. API Endpoint:

- Create a REST API endpoint (e.g., GET /api/users/{user}/achievements) that returns the following information for a given user:
 - unlocked_achievements (array of strings)
 - next_available_achievements (array of strings)
 - current_badge (string)
 - next_badge (string)
 - remaining_to_unlock_next_badge (integer)

Frontend Tasks:

1. Customer Dashboard:

- Create a responsive customer-facing web page (using React) that consumes the API endpoint you built.
- This page should display the user's unlocked achievements, their current badge, and the progress toward the next badge.
- The design should be clean and user-friendly.

Submitting:

- Submit a link to a GitHub repository containing your complete project.
- The repository should include clear instructions on how to set up and run the application (both front-end and back-end).
- Your project should have committed messages representing your progress.
- Submission is expected within 3 days of receipt of the assessment