Screening Test – Senior Full Stack Developer (SaaS HR Product)

⏳ **Submission Deadline: 5–6 hours**

📫 **Submission Format: GitHub repo link + README.md**

🧪 Scenario

You are building a **Leave Request Workflow** for our SaaS HR platform.

The workflow should allow:

- Employees to submit leave requests
- Managers to approve/reject requests

Use **mock data** for users (Employees & Managers) and leave balances. No need for a real database — in-memory data or JSON storage is fine.

📋 Candidate Tasks

🔹 1. Backend API

Build **basic APIs**:

- `POST /leave/apply` → employee applies for leave
- `GET /leave/pending` → manager views pending requests
- `POST /leave/approve/:id` → manager approves/rejects a request

Requirements:

- Validate dates (no past dates, no overlaps)

- Check leave balance before approval
- Ensure only "Manager" role can approve

◆ 2. Frontend

Build a small UI (React/Next.js or similar):

- Employee → form to apply for leave (with validation & feedback)
- Manager → dashboard with list of pending requests + approve/reject buttons

◆ 3. Role Handling

- Mock login for **Employee** and **Manager** (hardcoded users is fine)
- Show different UI based on role

◆ 4. Code Quality & Documentation

- Use clean architecture & reusable components
- Provide a `README.md` with:

  - Setup instructions
  - Assumptions
  - Brief explanation of your approach

◆ 5. Testing

- Add **unit tests** for one backend function (e.g., date validation or leave balance check)
- Add a simple **frontend test** for the leave form

◆ Bonus (Optional – 5 marks)

- Add a **monthly leave summary endpoint** (`GET /leave/summary`)
- Add TypeScript types for API responses

Best of luck!