Assignment: Employee Salary Management System

Objective:

Develop a Java-based web application to calculate and process employee salary payments. The application should use Angular for the frontend and Spring Boot for the backend.

Project Overview:

1. There are six employee grades/ranks:
   - Grade 1 (highest) → 1 employee
   - Grade 2 → 1 employee
   - Grade 3 → 2 employees
   - Grade 4 → 2 employees
   - Grade 5 → 2 employees
   - Grade 6 (lowest) → 2 employees

2. Each employee has the following details:
   - Employee ID (4-digit unique ID)
   - Name
   - Grade/Rank
   - Address
   - Mobile Number
   - Bank Account

3. The Bank Account includes:
   - Account Type (Savings/Current)
   - Account Name
   - Account Number
   - Current Balance
   - Bank and Branch Name

4. Salary Calculation:
   - The salary consists of the following components:
     - ✓ Basic Salary
     - ✓ House Rent → 20% of the basic salary
     - ✓ Medical Allowance → 15% of the basic salary
   - The basic salary of the lowest grade will be provided as input.
   - The basic salary of each higher grade is calculated as:
     - ✓ Basic Salary of Current Grade=Basic Salary of Previous Grade + 5000

5. Company Account and Salary Payment:
    - The company will have a main bank account with an initial balance (taken as input).
    - Salaries will be transferred from the company's account to employees' bank accounts.
    - If the company account runs out of money during salary processing, the system should provide an input option to add funds and then continue the salary payment.

Features & Functional Requirements:

Inputs:

- Basic salary of the lowest grade
- Initial balance of the company bank account
- Employee information

Tasks & Outputs:

- CRUD functionality for all entities.
- Employee ID should be 4 digits and unique
- Maintain proper entity relationships (One-to-Many, Many-to-One)
- Provide input validation (e.g., non-empty fields, valid phone number, valid bank details)
- Salary calculation for each employee based on the rules mentioned
- Transfer salary from the company account to employees' accounts
- Generate salary sheet (Display employee name, rank, and salary)
- Summary report (Total salary paid and remaining company balance)

Preferred Technology Stack:

- Java 11/17/21
- Spring Boot 3 and above, Spring Data JPA, Hibernate
- Maven
- MSSQL / PostgreSQL
- Angular (TypeScript)