

Hackathon Problem Statement:

Employee Management CLI Application

Objective:

Create a **Command Line Interface (CLI)** application in Python for managing employees in a company. This should demonstrate **OOP principles**, proper **modularization**, **file-based persistence**, and include **unit testing**.

Functional Requirements:

The CLI should support:

1. Add a new employee
2. View all employees
3. Search employee by ID
4. Delete an employee
5. Save and load data from Pickle file

Employee Details:

Each employee record should include:

- id (Unique, auto-generated)
- name
- department
- designation
- gross_salary
- tax
- bonus
- net_salary

Folder Structure

```
employee_mgmt/  
|  
├─ main.py  
├─ employee.py  
├─ employee_manager.py  
├─ storage.py  
├─ employees.json  
├─ tests/  
|   ├─ __init__.py  
|   ├─ test_employee.py  
|   ├─ test_employee_manager.py  
|   └─ test_storage.py
```

Assessment Criteria

Criteria	Weight
OOP Design (classes, objects)	30%
Functional CLI Implementation	20%
Clean Modular Code	20%
Unit Tests with Coverage	20%
Code Style and Documentation	10%