

Project 2

Employee Management System

You are tasked to build an employee management system for a small business.

The system allows the business to store and manage employee data, and perform tasks related to employee management, such as adding and removing employees, updating employee information, searching for employees by name or department, and calculating total salary expenses.

You will need to create one class for this project:

- Employee, which represents a single employee.



Employee Class

The employee class represents one employee.

Attributes

- `name: string`
- `job_title: string`
- `department: string`
- `salary: float`
- `hire_year: int`

Methods

- `__str__()`: return a string representation.
- `years_worked()`: return the total years this employee has worked here, based on the hire year.
- `total_expense()`: calculate the total salary expense for this employee, which is the salary multiplied by the years worked.
- `write_employees()`: Write your employee information to a text file.
- Add accessor and mutator methods for each attribute so a user doesn't need to access them directly.
- Be sure to use type hinting and a docstring in your class

