

# Object-Oriented Programming Lab#6, Spring 2019

## Today's Topics

- Class and Object
- Initialization of fields.
- Constructor
- Array of reference type

## Problems/Assignments

### Employee Record System

Create an Employee Record System for “UAP HR” department. Implement the system in such a way where user can 1) add new Employee to the system, 2) get the salary of any employee, 3) increase the salary of an employee and 4) display the list of Employee and their info. Each Employee is identified by **his/her name, employee id and position/designation**. Each employee is paid a fixed monthly **salary** regardless of the number of hours he/she worked.

What you need to do:

- 1) Create an **Employee** class which has **4 instance variables; name, id, designation and salary**.
  - a. Create a **constructor** that takes initial value for those 4 attributes and initializes those attributes.Create the **following 3 methods** as described
  - a. **void increaseSalary(double amt)**
    - inside the method the salary attributes need to be increase by **amt** amount.
  - b. **double getSalary()**
    - the method returns the salary.
  - c. **void display()**
    - this method displays the attributes in the format “Name:[name]; Id:[id]; Desig:[designation]; Salary:[salary]”.
- 2) Now create another class **UapCSE** to represent the CSE department which has a list of Employee. So, there will be one attribute of type Employee Array or ArrayList to represent the list of the employee [**Employee[] employees**]. Add the following methods to this class.
  - a. **void addNewEmployee(String n, String l, String d, double b)**
    - Create an **Employee** object using the parameter provided and add the object to **employees** array.
  - b. **void increaseSalary(String id, double amt)**
    - Find the Employee using the **findEmployee** method and call the **increaseSalary** method for that object.

**c. double getSalary(String id)**

- Find the Employee using the *findEmployee* method and call the *updateSalary* method for that object

**d. Employee findEmployee(String id)**

- Loop through the *employees* and find the **Employee** whose id matches with the parameter provided.

**e. void display()**

- Loop through the *employees* and call display of Employee class for each item.

1) Create an **application class** (that has the main method) named **"UAP"** which will have the **main** method.

- In the main method, display the following menu to user and take necessary action.
  - Input '1' to add a new Employee.
  - Input '2' to get Salary info of a specific Employee
  - Input '3' to increase the salary of an Employee.
  - Input '4' to display the list of the Employees.
  - Input '0' to exit the system.