

ASSIGNMENT 2

The purpose of this project is to calculate the salary payroll according to the profession of each staff member at the university with programming.

This members' job are Academicians (Faculty member and Research assistant), Officers, Employees (Full time and Part time) and Securities.

Because of each the salary of a staff member is different, algorithm should be written for each

I created superclasses and subclasses with using inheritance in this assignment. Because there were a lot of common attribute and methods in the codes.

These are the classes I created:

*Main

I called the readFile method two times and searching method a times.

*Personnel

It is the superclass all of them (except Main class).

-Attributes-

Week1, Week2, Week3, Week4(int): It used for the values of weekly working hours.

Year(int): It used for personnel's year of the start.

Job(String): It used for personnel's job.

Salary(double): It used for personnel's salary

-Methods-

ReadFile: This method is converted sent txt files to string array.

Searching: With using for loop, I got a row in the array that created in ReadFile methods respectively, separated it by split. I did the job check on the String array that created. According to this situation, I sent the methods in the job class (like Faculty member, Officer). Then it printed the values it finds to the txt file for each row.

Controlling: It used to assign values to variables (weeks, year, salary).

SeverancePay: According to Personnel's starting year, It calculated addition salary.

*Academician

This class is subclass of Personnel

-Methods-

ssBenefits: This method is used some of the basesalary for faculty members and research assistants.

-Faculty Member

This class is subclass of Academician

-Methods-

Calculating: This method calculates salary with process that differ by jobs

-Research Assistant

This class is subclass of Academician

-Methods-

Calculating: This method calculates salary with process that differ by jobs

*Officer

This class is subclass of Personnel

-Methods-

Calculating: This method calculates salary with process that differ by jobs

*Employee

This class is subclass of Personnel

I left this class empty because there is nothing in common between parttime and fulltime except in Personnel class.

*Parttime

This class is subclass of Employee

-Methods-

Calculating: This method calculates salary with process that differ by jobs

*Fulltime

This class is subclass of Employee

Attributes-

Hours(int): This variable is the maximum daily working hours for fulltime employees. This value is eight for chief, ten for worker. This value changes according to the job.

-Methods-

Calculating: This method calculates salary with process that differ by jobs

-Worker

This class is subclass of FullTime

-Methods-

Calculating: This method calculates salary with process that differ by jobs

-Chief

This class is subclass of FullTime

-Methods-

Calculating: This method calculates salary with process that differ by jobs

*Security

This class is subclass of Personnel

-Methods-

Calculating: This method calculates salary with process that differ by jobs

***The uml diagram of this assignment is as follows:

