

CPSC 50100 Assignment 6

1. With the **class** `Person`, you are to extend a subclass named, `PaidAdvisor` whose variables, `regularPayRate`, `specialPayRate`, `overtimePayRate`, and `hoursWorked` should be defined before their being used in the methods.

- (a) Build a subclass, `PaidAdvisor` besides `Person`.
- (b) `regularPayRate` is 25 dollars per an hour.
- (c) `specialPayRate` is 50 dollars per an hour and is calculated separately.
- (d) `overtimePayRate` is one and half time of the regular pay rate.
- (e) Whenever the worker works more than 30 hours, the overtime pay rate kicks in and the pay is calculated accordingly. However, special work hours are separately calculated. Say, you have worked 40 hours. Your system must be able to ask a separate question like, "Have you worked for a special session?" If so (say your special session hours are 5), you need to subtract the special hours from the total hours (35 total hours and 5 special session hours). Calculate the pay accordingly (maybe you can add a variable like `hoursSpecial?`).
- (f) Define the constructors that sets `regularPayRate/specialPayRate/overtimePayRate` and `hoursRegular/hoursSpecial` and 0 or the set values (e.g., `rate` or `hours`).
- (g) Define the method, `toString()`, that returns the wages based on the method, `calculatePay()`.
- (h) Define the method, `calculatePay()`, that calculates the multiplication of the pay rate (the regular pay rate and the overtime pay rate) and the hours worked.
- (i) Define the method, `getPayRate()`, that returns either of the pay rates (regular or overtime).

- (j) Define the method, `getHoursWorked()`, that returns the hours worked.
 - (k) Define the method, `setNameRateHours()`, that sets the name, rate and hours for the research consultant.
 - (l) After building all the parts as above, then build a program that asks the user to enter the hours and calculates the pay as the test program.
- **Use the class Person below.**

```
public class Person
{
    private String firstName; //store the first name
    private String lastName;  //store the last name
    public Person()           //Default constructor
    {
        firstName = "";
        lastName = "";
    }
    //Constructor with parameters
    public Person(String first, String last)
    {
        setName(first, last);
    }
    //Method to output the first name and last name
    public String toString()
    {
        return (firstName + " " + lastName);
    }
    //Method to set firstName and lastName
    public void setName(String first, String last)
    {
        firstName = first;
        lastName = last;
    }
    //Method to return the firstName.
    public String getFirstName()
    {
        return firstName;
    }
    //Method to return the lastName.
    public String getLastName()
    {
        return lastName;
    }
}
```