



**NEW YORK CITY COLLEGE OF TECHNOLOGY THE CITY UNIVERSITY OF NEW YORK**  
**Department of Computer Engineering Technology 300 Jay Street, Brooklyn, NY 11201-1909**

# **LAB REPORT**

**CET 3640 – OL30**

**(SOFTWARE FOR COMPUTER  
CONTROL)**

**LAB#5**

**JAVA PROGRAM INHERITANCE**

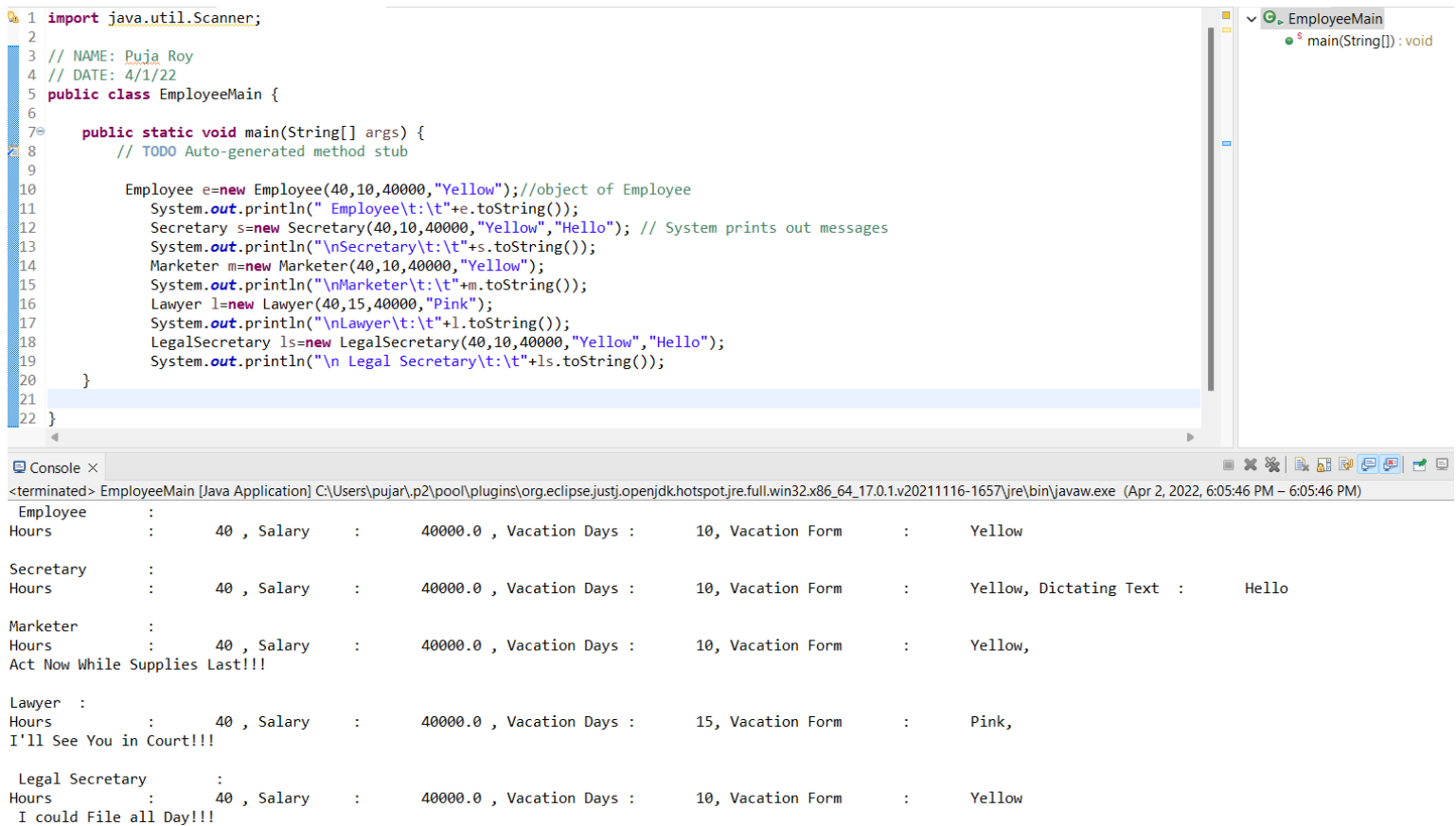
**Name: Puja Roy**

**Date: 4/1/22**

**Due Date: 4/2/22**

# DESCRIPTION OF THE LAB:

In this lab, I wrote a java program in Eclipse that executes work hours and other relevant job information of law firm employees. The output displays the job hours, salary, vacation days and vacation forms regarding the role of employees, secretaries, marketers, lawyers, and legal secretaries. I created 5 classes and a main file of the employees. I also created functions in the Java program that prints messages regarding the work information of the law firm employees. To add on, the programs consist of 5 classes that extend the other classes by inheriting methods and additional methods for the program to execute successfully.



The screenshot displays the Eclipse IDE with a Java project. The main editor shows the `EmployeeMain` class with a `main` method. The code creates instances of `Employee`, `Secretary`, `Marketer`, `Lawyer`, and `LegalSecretary`, each with specific attributes like hours, salary, vacation days, and vacation forms. The `main` method prints the details for each employee.

```
1 import java.util.Scanner;
2
3 // NAME: Puja Roy
4 // DATE: 4/1/22
5 public class EmployeeMain {
6
7     public static void main(String[] args) {
8         // TODO Auto-generated method stub
9
10        Employee e=new Employee(40,10,40000,"Yellow");//object of Employee
11        System.out.println(" Employee\t:t"+e.toString());
12        Secretary s=new Secretary(40,10,40000,"Yellow","Hello"); // System prints out messages
13        System.out.println("\nSecretary\t:t"+s.toString());
14        Marketer m=new Marketer(40,10,40000,"Yellow");
15        System.out.println("\nMarketer\t:t"+m.toString());
16        Lawyer l=new Lawyer(40,15,40000,"Pink");
17        System.out.println("\nLawyer\t:t"+l.toString());
18        LegalSecretary ls=new LegalSecretary(40,10,40000,"Yellow","Hello");
19        System.out.println("\n Legal Secretary\t:t"+ls.toString());
20    }
21
22 }
```

The console output shows the following details for each employee:

| Employee        | Hours | Salary  | Vacation Days | Vacation Form | Other Info                     |
|-----------------|-------|---------|---------------|---------------|--------------------------------|
| Employee        | 40    | 40000.0 | 10            | Yellow        |                                |
| Secretary       | 40    | 40000.0 | 10            | Yellow        | Dictating Text : Hello         |
| Marketer        | 40    | 40000.0 | 10            | Yellow        | Act Now While Supplies Last!!! |
| Lawyer          | 40    | 40000.0 | 15            | Pink          | I'll See You in Court!!!       |
| Legal Secretary | 40    | 40000.0 | 10            | Yellow        | I could File all Day!!!        |

```

1 import java.util.Scanner;
2
3 // NAME: Puja Roy
4 // DATE: 4/1/22
5 public class Employee {
6
7     // Declares the Member Data
8     protected int hrs;
9     protected int vd;//Vacation Days
10    protected double salary;
11    protected String vf;//Vacation Form
12    //default Constructor
13    public Employee ()
14    {
15        hrs=0;
16        vd=0;
17        salary=0;
18        vf="";
19    }
20    //Parameterized Constructor
21    public Employee (int h,int v,double s,String st)
22    {
23        hrs=h;
24        vd=v;
25        salary=s;
26        vf=st;
27    }
28    //Set Function for Employee hrs
29    public void sethrs(int i)
30    {
31        hrs=i;
32    }
33
34    //Set Function for Employee Vacation Days
35    public void setVD(int i)
36    {
37        vd=i;
38    }

```

```

1 import java.util.Scanner;
2
3 // NAME: Puja Roy
4 // DATE: 4/1/22
5 public class Secretary extends Employee {
6     private String dt;//Dictation Text
7     Secretary()
8     {
9     }
10    Secretary(int h,int v,double s,String st,String g)
11    {
12
13        super(h,v,s,st);// passing to super class constructor
14        dt=g;
15    }
16    public void setDT(String s) // Set function for Dictating text
17    {
18        dt=s;
19    }
20    public String getDT()
21    {
22        return(dt);
23    }
24    @Override
25    public String toString() // Prints out the messages
26    {
27        String s;
28        s="\nHours\t\t:hrs+ " , Salary\t\t:salary+ " , Vacation Days\t\t:vd + " , Vacation Form\t\t:vf+ " , Dictating Text\t\t:dt;
29        return s;
30    }
31 }
32

```

```

1 import java.util.Scanner;
2
3 // NAME: Pujja Roy
4 // DATE: 4/1/22
5 public class LegalSecretary extends Secretary {
6     LegalSecretary(int h,int v,double s,String st,String g) //Set function for the variables
7     {
8
9         super(h,v,s,st,g);
10    }
11    @Override
12    public String toString() // Prints out the messages
13    {
14        String s;
15        s="\nHours\t\t\t\t\t" +hrs+ " , Salary\t\t\t\t\t"+salary+ " , Vacation Days\t\t\t\t\t" +vd + " , Vacation Form\t\t\t\t\t"+vf+"\n I could File all Day!!!"
16        return s;
17    }
18 }
19
1
2 import java.util.Scanner;
3 // NAME: Pujja Roy
4 // DATE: 4/1/22
5 public class Lawyer extends Employee {
6     Lawyer (int h,int v,double s,String st) //Set function for the variables
7     {
8
9         super(h,v,s,st);
10    }
11    @Override
12    public String toString() // Prints out the messages
13    {
14        String s;
15        s="\nHours\t\t\t\t\t" +hrs+ " , Salary\t\t\t\t\t"+salary+ " , Vacation Days\t\t\t\t\t" +vd + " , Vacation Form\t\t\t\t\t"+vf+",\nI'll See You in Court!!"
16        return s;
17    }
18 }
19
1
2 import java.util.Scanner;
3 // NAME: Pujja Roy
4 // DATE: 4/1/22
5 public class Marketer extends Employee {
6     Marketer(int h,int v,double s,String st) //Set function to the variables
7     {
8
9         super(h,v,s,st);
10    }
11    @Override
12    public String toString() // Prints out the messages
13    {
14        String s;
15        s="\nHours\t\t\t\t\t" +hrs+ " , Salary\t\t\t\t\t"+salary+ " , Vacation Days\t\t\t\t\t" +vd + " , Vacation Form\t\t\t\t\t"+vf+", \nAct Now While Supplies
16        return s;
17    }
18 }
19

```

## UML Diagram:

