Assignment 5

Employee.java

```java
package paypolicy;

public class Employee {
        private int emp_id;
        private String emp_name;
        double pay;
        private double emp_basicpay=0;
        private PayPolicy payPolicy;
        public Employee(int emp_id, String emp_name, double emp_basicpay,
        PayPolicy payPolicy)
        {
                super();
                this.emp_id = emp_id;
                this.emp_name = emp_name;
                this.emp_basicpay = emp_basicpay;
                this.payPolicy = payPolicy;
        }

        public double getPay() {
                return pay;
        }
        public void setPay(double pay) {
                this.pay = pay;
        }
        public int getEmp_id() {
                return emp_id;
        }
        public void setEmp_id(int emp_id) {
                this.emp_id = emp_id;
        }
        public String getEmp_name() {
                return emp_name;
        }
        public void setEmp_name(String emp_name) {
                this.emp_name = emp_name;
        }
        public double getEmp_basicpay() {
                return emp_basicpay;
        }
        public void setEmp_basicpay(double emp_basicpay) {
        this.emp_basicpay = emp_basicpay;
        }
        public PayPolicy getPayPolicy() {
                return payPolicy;
        }
        public void setPayPolicy(PayPolicy payPolicy) {
                this.payPolicy = payPolicy;
        }
```

```java
        public void calculateGrosspay(){

                pay = this.getPayPolicy().calculate_salary(getEmp_basicpay());

        }


        @Override
        public String toString() {
                return "Employee [emp_id=" + emp_id + ", emp_name=" + emp_name
                                + ", pay=" + pay + ", emp_basicpay=" + emp_basicpay
                                + ", payPolicy=" + payPolicy + "]";
        }
        public void display()
        {
                System.out.println(this.toString());
        }
}
```

//Temporary.java

```java
package paypolicy;

public class Temporary extends PayPolicy{
public double calculate_salary(double basicpay)
{
        double temp = (basicpay * 40) / 100;
        temp = basicpay + temp;
        return temp;
}
}
```

//Trainee.java
```java
package paypolicy;

public class Trainee extends PayPolicy{
public double calculate_salary(double basicpay)
{
        double temp = basicpay;
        return temp;
}
}
```

//Permanent.java


```java
package paypolicy;

public class Permanant extends PayPolicy{
```

```java
public double calculate_salary(double basicpay)
{
        double temp;
        if(basicpay > 40000)
        {
                temp = (basicpay * 70) / 100;
                temp = basicpay + temp + 5000;
        }
        else
        {
                temp = (basicpay * 70) / 100;
                temp = basicpay + temp;
        }
        return temp;
        }
}


                //PayPolicy

package paypolicy;

        public abstract class PayPolicy {

        public abstract double calculate_salary(double basepay);
}



                //Test.java
package test;
import paypolicy.*;

public class Test {

        public static void main(String[] args) {
                Employee first=new Employee(1, "Snehal", 70000.00,new Trainee());
                first.calculateGrosspay();
                first.display();

                Employee second = new Employee(2, "Riddhi", 70000.00, new Temporary());
                second.calculateGrosspay();
                second.display();

                Employee third = new Employee(3, "Zayn", 70000.00, new Permanant());
                third.calculateGrosspay();
                third.display();
        }
}
```

Output:

Employee [emp_id=1, emp_name=Snehal, pay=70000.0, emp_basicpay=70000.0, payPolicy=paypolicy.Trainee@67ed13]
Employee [emp_id=2, emp_name=Riddhi, pay=98000.0, emp_basicpay=70000.0, payPolicy=paypolicy.Temporary@d03a00]
Employee [emp_id=3, emp_name=Zayn, pay=124000.0, emp_basicpay=70000.0, payPolicy=paypolicy.Permanent@900079]