<h1 style="text-align:center"><u>Assignment No -: 5</u></h1>

<u>Purpose</u>: Implement a Strategy design pattern .

*****************************BussinesLogic Package*****************************

1) Employee.java
 package ccoew.it.i2.BusinessLogic;

```java
public class Employee {

        private int emp_id;
        private String emp_name;
        private double emp_basicpay;
        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 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;
        }
        public double calculateGrosspay(){
                double pay;
                pay = this.getPayPolicy().calculate_salary(getEmp_basicpay());
```

```
            return pay;
        }
}
```

2)PayPolicy.java

```java
package ccoew.it.i2.BusinessLogic;

public abstract class PayPolicy {

        //public double gross_sal;
        public abstract double calculate_salary(double basepay);
}
```

3)Permanant.java

```java
package ccoew.it.i2.BusinessLogic;
import ccoew.it.i2.BusinessLogic.PayPolicy;

public class Permanant extends PayPolicy{

        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;
        }
}
```

4) Temporary.java

```java
package ccoew.it.i2.BusinessLogic;
import ccoew.it.i2.BusinessLogic.PayPolicy;

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

                        return temp;
        }
```

}

5)Trainee.java

```java
package ccoew.it.i2.BusinessLogic;
import ccoew.it.i2.BusinessLogic.PayPolicy;

public class Trainee extends PayPolicy{

        public double calculate_salary(double basicpay)
        {
                double temp = basicpay;
                return temp;
        }
}
```

***************************Client Package****************************

TestClient.java

```java
package ccoew.it.i2.Client;
import ccoew.it.i2.BusinessLogic.Employee;
import ccoew.it.i2.BusinessLogic.Permanant;
import ccoew.it.i2.BusinessLogic.Temporary;
import ccoew.it.i2.BusinessLogic.Trainee;

public class TestClient {

        /**
         * @param args
         */
        public static void main(String[] args) {

                Employee first = new Employee(1, "Suresh", 40000.00, new Trainee());
                Employee second = new Employee(2, "Ramesh", 50000.00, new Trainee());
                Employee third = new Employee(3, "Mahesh", 60000.00, new Trainee());

                double mySalary = first.calculateGrosspay();
                System.out.println("\n\tEmployee ID : "+first.getEmp_id());
                System.out.println("\tEmployee Name : "+first.getEmp_name());
                System.out.println("\tEmployee Basic Pay : "+first.getEmp_basicpay());
                System.out.println("\tGross salary : "+mySalary);

                second.setPayPolicy(new Temporary());
                mySalary= second.calculateGrosspay();

                System.out.println("\n\tEmployee ID : "+second.getEmp_id());
                System.out.println("\tEmployee Name : "+second.getEmp_name());
                System.out.println("\tEmployee Basic Pay : "+second.getEmp_basicpay());
                System.out.println("\tGross salary : "+mySalary);
```

```
			third.setPayPolicy(new Permanant());
			mySalary = third.calculateGrosspay();

			System.out.println("\n\tEmployee ID : "+third.getEmp_id());
			System.out.println("\tEmployee Name : "+third.getEmp_name());
			System.out.println("\tEmployee Basic Pay : "+third.getEmp_basicpay());
			System.out.println("\tGross salary : "+mySalary);
		}
}

/*
```

Output-

```
		Employee ID : 1
		Employee Name : Suresh
		Employee Basic Pay : 40000.0
		Gross salary : 40000.0

		Employee ID : 2
		Employee Name : Ramesh
		Employee Basic Pay : 50000.0
		Gross salary : 70000.0

		Employee ID : 3
		Employee Name : Mahesh
		Employee Basic Pay : 60000.0
		Gross salary : 107000.0


*/
```