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**Subject:- Advanced Java Programming Lab**

## **Experiment no.1**

**Aim:-** Implementing Program that are easily extensible demonstrating Polymorphic behavior.

### **Program no.1 :- A program using Override method in Java:-**

```
package com.AJPExperiments;
class bike{
    public void model()
    {
        System.out.println("We are bikes");
    }
}
class continentalGT extends bike{
    public void model()
    {
        System.out.println("ContinentalGT is model of Royal Enfield");
    }
}
class Dominor extends bike{
    public void model()
    {
        System.out.println("Dominor is model of Bajaj");
    }
}
class NinjaH2R extends bike{
    public void model()
    {
        System.out.println("NinjaH2R is model of Kawasaki");
    }
}

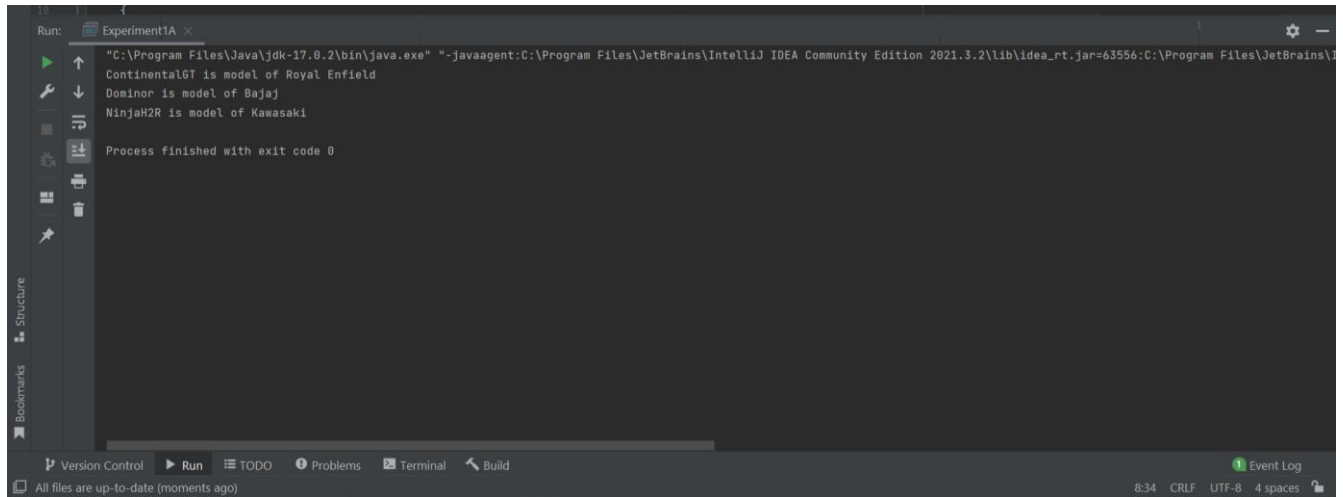
public class Experiment1A {
    public static void main(String[] args) {
        bike m;
        bike m1 = new continentalGT();
        m1.model();
    }
}
```

```

        bike m2 = new Dominor();
        m2.model();
        bike m3 = new NinjaH2R();
        m3.model();
    }
}

```

## Output:-



## Program no.2 :- Write a program to print rate of interest of some banks using overriding method.

```
package com.AJPExperiments;
```

```

class bank1{
    float interest() {
        return 0;
    }
}
class SBI extends bank1 {
    float interest() {
        return (28.0f);
    }
}
class ICICI extends bank1 {
    float interest() {
        return (24.0f);
    }
}
class BOI extends bank1 {
    float interest() {

```

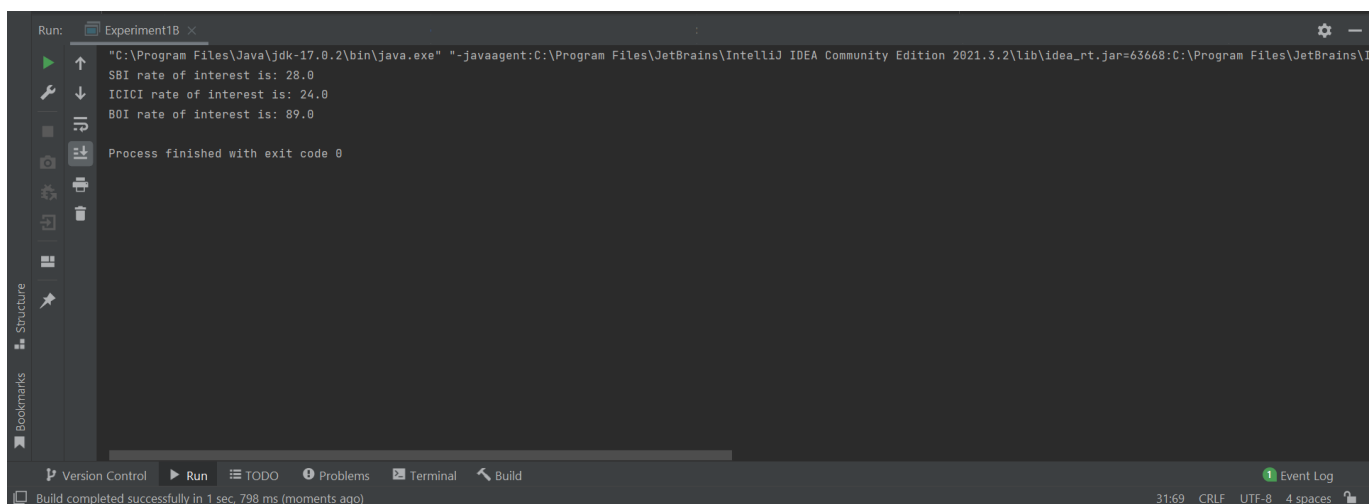
```

        return (89.0f);
    }
}

public class Experiment1B {
    public static void main(String[] args) {
        bank1 b;
        bank1 b1 = new SBI();
        System.out.println("SBI rate of interest is: "+b1.interest());
        bank1 b2 = new ICICI();
        System.out.println("ICICI rate of interest is: "+b2.interest());
        bank1 b3 = new BOI();
        System.out.println("BOI rate of interest is: "+b3.interest());
    }
}

```

## Output:-



The screenshot shows the Run console in IntelliJ IDEA. The output is as follows:

```

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=63668:C:\Program Files\JetBrains\I
SBI rate of interest is: 28.0
ICICI rate of interest is: 24.0
BOI rate of interest is: 89.0
Process finished with exit code 0

```

The status bar at the bottom indicates: Build completed successfully in 1 sec, 798 ms (moments ago). The bottom right corner shows: 31:69 CRLF UTF-8 4 spaces.

## Program no.3 :- Write a program using method overloading.

```
package com.AJPExperiments;
```

```

class overload{
    void demo (int a)
    {
        System.out.println("a:"+a);
    }
    void demo (int a, int b)
    {
        System.out.println("a & b:"+a);
        System.out.println(b);
    }
}

```

```

double demo (double a){
    System.out.println("double a: "+a);
    return a*a;
}

public class Experiment1C {
    public static void main(String[] args) {
        overload s1 = new overload();
        double result;
        s1.demo(8);
        s1.demo(28, 24);
        result = s1.demo(5.5);
        System.out.println("The result is:"+ result);
    }
}

```

## Output:-

