

Assignment 05

Aromal S K
22BAI10288

P1

Code :

```
class A {  
    int i;  
}  
  
class B extends A {  
    int i;  
  
    B(int a, int b) {  
        super.i = a;  
        i = b;  
    }  
  
    void show() {  
        System.out.println("i in superclass : " + super.i);  
        System.out.println("i in subclass : " + i);  
    }  
}  
  
class useSuper {  
    public static void main(String[] args) {  
        B subOb = new B(69, 42);  
  
        subOb.show();  
    }  
}
```

Output :

```
PS F:\Coding\Codes\Java\p1> & 'F:\Coding\Codes\Java\p1\bin' 'useSuper'
i in superclass : 69
i in subclass : 42
PS F:\Coding\Codes\Java\p1>
```

P2

Code :

```
class Vehicle {  
    int speed = 69;  
}  
  
class Bike extends Vehicle {  
    int speed = 100;  
    void display() {  
        System.out.println(super.speed);  
    }  
    public static void main(String[] args) {  
        Bike b = new Bike();  
        b.display();  
    }  
}
```

Output :

```
PS F:\Coding\Codes\Java\p1>  
ding\Codes\Java\p1\bin' 'Bike  
69  
PS F:\Coding\Codes\Java\p1>
```

P3

Code :

```
class A {
    A() {
        System.out.println("Inside A's Constructor ;D ");
    }
}

class B extends A {
    B() {
        System.out.println("Inside B's Constructor ;D");
    }
}

class C extends B {
    C() {
        System.out.println("Inside C's Constructor ;D");
    }
}

class callingCons {
    public static void main(String[] args) {
        C c = new C();
    }
}
```

Output:

```
PS F:\Coding\Codes\Java\p1> java -cp 'F:\Coding\Codes\Java\p1\bin' 'callingCons'
Inside A's Constructor ;D
Inside B's Constructor ;D
Inside C's Constructor ;D
PS F:\Coding\Codes\Java\p1>
```

P4

Code :

```
class Cars {
    void cars() {
        System.out.println("There are many Category of Cars....");
    }
}

class SuperCar extends Cars {
    void supercars() {
        System.out.println("One of those categories is Supercars....");
    }
}

class NissanGTR extends SuperCar {
    void gtr() {
        System.out.println("NISSAN GTR is a Super Car");
    }
}

class TestInheritance {
    public static void main(String[] args) {
        NissanGTR d = new NissanGTR();
        d.cars();
        d.supercars();
        d.gtr();
    }
}
```

Output :

```
PS F:\Coding\Codes\Java\p1> & 'F:\Coding\So
ding\Codes\Java\p1\bin' 'TestInheritance'
There are many Category of Cars....
One of those categories is Supercars....
NISSAN GTR is a Super Car
PS F:\Coding\Codes\Java\p1>
```

P5

Code :

```
class Bank {  
  
    double getRateOfInterest() {  
  
        return 0;  
  
    }  
}  
class SBI extends Bank {  
  
    double getRateOfInterest(){  
  
        return 6.9;  
  
    }  
}  
class ICICI extends Bank {  
  
    double getRateOfInterest() {  
  
        return 4.2;  
  
    }  
}  
class AXIS extends Bank {  
  
    double getRateOfInterest() {  
  
        return 10.6;  
  
    }  
}  
  
class Test {  
  
    public static void main(String[] args) {  
  
        SBI s = new SBI();  
        ICICI i = new ICICI();  
    }  
}
```

```
        AXIS a = new AXIS();  
        System.out.println("SBI Rate of Interest: "+s.getRateOfInterest() + "%");  
        System.out.println("ICICI Rate of Interest: "+i.getRateOfInterest() +  
"%");  
        System.out.println("AXIS Rate of Interest: "+a.getRateOfInterest() +  
"%");  
    }  
}
```

Output :

```
PS F:\Coding\Codes\Java\p1> java -cp 'F:\Coding\Codes\Java\p1\bin' 'Test'  
SBI Rate of Interest: 6.9%  
ICICI Rate of Interest: 4.2%  
AXIS Rate of Interest: 10.6%  
PS F:\Coding\Codes\Java\p1>
```