

### Question 5:- (Interface Bike Speed Gear)

```
import java.util.*;

interface Vehicle

{
    void changeGear(int a);
    void speedUp(int a);
    void applyBreaks(int a);
}

class Bicycle implements Vehicle
{
    int speed;
    int gear;
    public void changeGear(int newGear)
    {
        gear = newGear;
    }
    public void speedUp(int increment)
    {
        speed=speed+increment;
    }
    public void applyBreaks(int decrement)
    {
        speed=speed-decrement;
    }
    public void printStates()
    {
        System.out.println("Speed = "+speed+"gear = "+gear);
    }
}

class Bike implements Vehicle
```

```
{
int speed;
int gear;
public void changeGear(int newGear)
{
gear = newGear;
}
public void speedUp(int increment)
{
speed=speed+increment;
}
public void applyBreaks(int decrement)
{
speed=speed-decrement;
}
public void printStates()
{
System.out.println("Speed = "+speed+"gear = "+gear);
}
}

class StartVehicle
{
public static void main(String args[])
{
Bicycle bicycle = new Bicycle();
bicycle.changeGear(2);
bicycle.speedUp(3);
bicycle.applyBreaks(1);
System.out.println("Bicycle present state :");
bicycle.printStates();
Bike bike = new Bike();
```

```
bike.changeGear(1);  
bike.speedUp(4);  
bike.applyBreaks(3);  
bike.applyBreaks(1);  
System.out.println("Bike present state :");  
bike.printStates();  
}  
}
```