**EXPERIMENT NO :6**

import java.io.\*;

interface Vehicle {

void changeGear(int a);

void speedUp(int a);

void applyBrakes(int a);

}

class Bicycle implements Vehicle{

int speed;

int gear;

@Override

public void changeGear(int newGear){

gear = newGear;

}

@Override

public void speedUp(int increment){

speed = speed + increment;

}

@Override

public void applyBrakes(int decrement){

speed = speed - decrement;

}

public void printStates() {

System.out.println("speed: " + speed

+ " gear: " + gear);

}

}

class Bike implements Vehicle {

int speed;

int gear;

@Override

public void changeGear(int newGear){

gear = newGear;

}

@Override

public void speedUp(int increment){

speed = speed + increment;

}

@Override

public void applyBrakes(int decrement){

speed = speed - decrement;

}

public void printStates() {

System.out.println("speed: " + speed

+ " gear: " + gear);

}

}

class GFG {

public static void main (String[] args) {

Bicycle bicycle = newBicycle();

bicycle.changeGear(2);

bicycle.speedUp(3);

bicycle.applyBrakes(1);

System.out.println("Bicycle present state :");

bicycle.printStates();

Bike bike = new Bike();

bike.changeGear(1);

bike.speedUp(4);

bike.applyBrakes(3);

System.out.println("Bike present state :");

bike.printStates();

}

}

OUTPUT

Bicycle present state :

speed: 2 gear: 2

Bike present state :

speed: 1 gear: 1