Que-1) class Car{

private int year;

private String make;

private double speed;

Car(int year, String make, double speed){

this.year=year;

this.make=make;

this.speed=speed;

}

int getYear(){

return this.year;

}

String getMake(){

return this.make;

}

double getSpeed(){

return this.speed;

}

void accelerate(){

speed=speed+1;

}

}

class RaceTrack{

public static void main(String[] args){

Car c = new Car(2020,"Mercedes",25.00);

System.out.println("Year of manufacturing="+" "+c.getYear());

System.out.println("Name of the car="+" "+c.getMake());

System.out.println("Speed of the car="+" "+c.getSpeed());

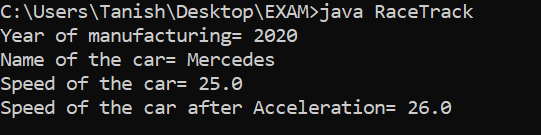
c.accelerate();

System.out.println("Speed of the car after Acceleration="+" "+c.getSpeed());

}

}

Output:



Que-2) import java.util.\*;

class Item{

int itemId;

String itemName;

Item(int itemId,String itemName){

this.itemId = itemId;

this.itemName = itemName;

}

Item(){}

void setitemId(int itemId){

this.itemId = itemId;

}

void setitemName(String itemName){

this.itemName = itemName;

}

public String toString(){

return this.itemId+" "+this.itemName ;

}

}

class namesort implements Comparator<Item>{

public int compare(Item I1,Item I2){

return I1.itemName.compareTo(I2.itemName);

}

}

class idsort implements Comparator<Item>{

public int compare(Item I1,Item I2){

return I2.itemId-(I2.itemId);

}

}

class Inventory{

static Item I = new Item();

static ArrayList<Item> list = new ArrayList<>();

public static void main(String[] args){

Scanner sc = new Scanner(System.in);

int choice;

Item I1 = new Item(101,"ABC");

Item I2 = new Item(102,"RST");

Item I3 = new Item(103,"XYZ");

Item I4 = new Item(104,"HMN");

Item I5 = new Item(105,"MNO");

list.add(I1);

list.add(I2);

list.add(I3);

list.add(I4);

list.add(I5);

do{

System.out.println("Enter your choice == ");

System.out.println("1) Add Item.\n2) Display complte inventory in sorted order of item as well as itemId.\n3) Remove Item.\n4) Exit");

choice = sc.nextInt();

switch(choice){

case 1:

System.out.println("Enter your details as follows");

System.out.println("Enter Item you want to add");

for(int i=1;i<1;i++){

System.out.println("Enter id of item");

int d=sc.nextInt();

I.setitemId(d);

System.out.println("Enter name of item");

sc.nextLine();

String ss=sc.nextLine();

I.setitemName(ss);

list.add(I);

}

System.out.println("Added items");

System.out.println(list);

break;

case 2:

System.out.println("Before sorting");

System.out.println(list);

System.out.println("sorting by id");

idsort n2 = new idsort();

Collections.sort(list,n2);

System.out.println(list);

System.out.println("sorting by name");

namesort n1 = new namesort();

Collections.sort(list,n1);

System.out.println(list);

break;

case 3:

System.out.println("List as follows");

System.out.println(list);

System.out.println("Enter index od item which you want to remove index start from 0");

int re = sc.nextInt();

list.remove(re);

System.out.println("List after removal");

System.out.println(list);

break;

case 4:

System.out.println("Thank you");

break;

}

}while(choice!=4);

}

}

Output:

