**1.1:Create a class Point2D , : for representing a point in x-y co-ordinate system.**

**1.2 Create a parameterized constructor to initialize x & y co-ords.**

**1.3 Add a method toString return string form of point's x & y co-ords**

**1.4 Create a tester class and test Point2D class.**

**1.5 Create a array to store 5 objects. Create menu driven program**

**1:show all 2:add new**

**package** Q\_1;

**public** **class** Point\_2D {

**private** **int** x;

**private** **int** y;

Point\_2D(){

};

Point\_2D(**int** x,**int** y)

{

**this**.x=x;

**this**.y=y;

}

@Override

**public** String toString() {

**return** "("+x+","+y+")";

}

}

**package** Q\_1;

**import** java.util.Scanner;

**public** **class** Main\_Point\_2D {**static** **public** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

**int** ch, index=0;

Point\_2D[] p = **new** Point\_2D[5];

**do** {

System.***out***.println("\n1.Show Element 2.Add Element 3.Exit");

ch = sc.nextInt();

**boolean** status=**false**;

**switch** (ch) {

**case** 1: {

**for**(**int** i=0;i<p.length;i++) {

**if**(p[i]!=**null**)

System.***out***.println("Point"+(i+1)+p[i]);

**else**

**break**;

}

**if**(index==0)

System.***out***.println("Array is empty!!!");

//

**break**;

}

**case** 2:

{ **if**(index<p.length)

{

System.***out***.println("Enter the (x,y) coordinates:- ");

Point\_2D pnt=**new** Point\_2D(sc.nextInt(),sc.nextInt());

p[index]=pnt;

index++;

}

**else**

System.***out***.println("Array is full!!!");

**break**;

}

**case** 3:

System.***out***.println("Exiting...");

**break**;

}

} **while** (ch != 3);

sc.close();

}

}

2.1:Create Showroom application for Vehicle management

2.2:create a class with data members(id,name,color,price)

2.3 create constructor to initialize data member

2.4 add disscount as static data member in Vehicle class

2.5 use static block to assign.

2.6 create getter setter and override toString()(hint:show disccount)

2.7 create tester class....create array to store 10 vechile...create menu driven program 1:show all 2:add vehicle...3:edit color 4:edit price 5:remove

LOGIC CLASS

package Q\_2;

import java.util.Scanner;

// LOGIC FOR SHOW DETAILS

public class logic {

static Scanner sc = new Scanner(System.in);

int ch = 0;

static int index = 0;

Vehicle\_Showroom vehicle = new Vehicle\_Showroom();

static Vehicle\_Showroom[] v = new Vehicle\_Showroom[10];

public static void show() {

for (int i = 0; i < v.length; i++) {

if (v[i] != null)

System.out.println("\nVehicle No. " + (i + 1) + "\n" + v[i]);

}

if (index == 0)

System.out.println("Array is empty!!!");

// or

// System.out.println(Arrays.deepToString(v));

// to print array contents

}

//LOGIC FOR ADD VEHICLE

public static void add() {

if (index < v.length) {

System.out.println("Enter Id Name Colour Price");

// int id=sc.nextInt();

// System.out.println("id done");

// String name=sc.next();

// System.out.println("name done");

// double price=sc.nextDouble();

// System.out.println("price done");

// String colour=sc.nextLine();

// System.out.println("colour done");

Vehicle\_Showroom vs = new Vehicle\_Showroom(sc.nextInt(), sc.next(), sc.next(), sc.nextDouble());

System.out.println("Data entered successfully!!!");

// System.out.println(vs);

v[index] = vs;

index++;

}

}

//LOGIC FOR EDIT PRICE

public static void edit\_price() {

boolean status = false;

System.out.println("To get the price of vehicle,enter the id :- ");

int temp\_id = sc.nextInt();

for (int i = 0; i < v.length; i++) {

if (v[i].getId() == temp\_id) {

System.out.println("Enter the new price:- ");

v[i].setPrice(sc.nextDouble());

System.out.println("Price Changed Successfully!!!");

status = true;

break;

} else {

status = false;

}

}

if (status == false)

System.out.println("Vehicle id not found!!!");

}

//LOGIC FOR EDIT COLOUR

public static void edit\_colour() {

boolean status = false;

System.out.println("To edit the colour of vehicle,enter the id :- ");

int temp\_id = sc.nextInt();

for (int i = 0; i < v.length; i++) {

if (v[i].getId() == temp\_id) {

System.out.println("Enter the new colour:- ");

v[i].setColour(sc.next());

System.out.println("Colour Changed Successfully!!!");

status = true;

break;

} else {

status = false;

}

}

if (status == false)

System.out.println("Vehicle id not found!!!");

}

//LOGIC FOR REMOVING ELEMENT

public static void remove() {

boolean status = false;

if (index == 0) {

System.out.println("Array is empty!!!");

// break;

}

System.out.println("To remove the vehicle,Enter the id :- ");

int temp\_id = sc.nextInt();

for (int i = 0; i < v.length; i++) {

if (v[i].getId() == temp\_id) {

v[i] = null;

System.out.println("Vehicle Removed successfully!!!");

status = true;

break;

} else {

status = false;

}

}

if (status == false)

System.out.println("Vehicle id not found!!!");

}

}

VEHICLE CLASS

**package** Q\_2;

**public** **class** Vehicle\_Showroom {

**private** **int** id;

**private** String name, colour;

**private** **double** price;

**public** **static** **int** *discount*;

// public static int discount=price\*0.1;

Vehicle\_Showroom(**int** id, String name, String colour, **double** price) {

**this**.id = id;

**this**.name = name;

**this**.price = price;

**this**.colour = colour;

}

**public** Vehicle\_Showroom() {

**super**();

}

**static** {

*discount*=1000;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getColour() {

**return** colour;

}

**public** **void** setColour(String colour) {

**this**.colour = colour;

}

**public** **double** getPrice() {

**return** price;

}

**public** **void** setPrice(**double** price) {

**this**.price = price;

}

**public** **int** getId() {

**return** id;

}

**public** String toString()

{

**return** "\nVehicle Id : "+id+"\nName : "+name+"\nColour : "+colour+"\nPrice : "+price;

}

}

MAIN CLASS

package Q\_2;

import java.util.Arrays;

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int ch = 0, index = 0;

do {

System.out.println("\n1.Show All 2.Add vehicle 3.Edit Price 4.Edit Colour 5.Remove 6.Exit");

System.out.println("Enter your choice :-");

ch = sc.nextInt();

switch (ch) {

case 1:

logic.show();

break;

case 2:

logic.add();

break;

case 3:

logic.edit\_price();

break;

case 4:

logic.edit\_colour();

break;

case 5:

logic.remove();

break;

case 6:

System.out.println("Exiting...");

System.exit(1);

default:

System.out.println("Enter valid choice");

}

} while (ch != 6);

}

}















