tax calculation application

package tax;

import java.util.ArrayList;

import java.util.Scanner;

import java.util.\*;

import java.util.Collection;

public class project {

static ArrayList<Property\_2> *arrlist* = new ArrayList<Property\_2>();

static ArrayList<Vehicle2> *data* = new ArrayList<Vehicle2>();

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

public static void main(String[] args) {

*login*();

}

public static void login() {

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

String Admin = "sonika";

int Security = 1234;

System.***out***.println("+----------------------------+");

System.***out***.println("|WELCOME TO TAX CALCULATION APP|");

System.***out***.println("+----------------------------+");

System.***out***.println("PLEASE LOGIN TO CONTINUE");

System.***out***.print("Username");

String Username =sc.next();

System.***out***.print("Password ");

int Password =sc.nextInt();

if (Username.equals(Admin)&& Password==Security) {

*options*();

}

else {

System.***out***.println("please Enter valid Userdetails");

}

}

static void options() {

int len = 4;

System.***out***.println(" 1. PROPERTY TAX\n 2. VEHICLE TAX\n 3. TOTAL\n 4. EXIT");

System.***out***.println("\nEnter your choice:\t");

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

int options = sc.nextInt();

for(int j=1;j<=len;j++){

if(options==j){

switch (options) {

case 1 :

*property*();

break;

case 2 :

*vehicle*();

break;

case 3 : *total*();

break;

case 4 : System.***out***.println("Thanks visit again");

break;

}

}

}

}

static void property() {

int length = 4;

System.***out***.println(" 1. ADD PROPERTY DETAILS \n 2. CALCULATE PROPERTY TAX \n 3. DISPLAY ALL PROPERTY \n 4. BACK TO MAIN MENU");

System.***out***.println("\nEnter your choice:\t");

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

int option = sc.nextInt();

for(int j=1;j<=length;j++){

if(option==j){

switch (option) {

case 1 :

System.***out***.println("Enter the property details");

System.***out***.print("Enter the base value of land");

double basevalueofland = sc.nextDouble();

System.***out***.print("Enter the build\_up area of land");

double area = sc.nextDouble();

System.***out***.print("Enter the age of land in years");

int ageofProp = sc.nextInt();

System.***out***.print("Is the land located in the city (yes-y ,No-n)");

char isInCity = sc.next().charAt(0);

Property\_2 property = new Property\_2(basevalueofland,area,ageofProp,isInCity);

*arrlist*.add(property);

*property*();

break;

case 2 :

double Tax;

for (Property\_2 pr : *arrlist* ) {

try {

if (pr.isInCity=='y'){

pr.Tax = (pr.area \* pr.ageofProp \* pr.basevalueofland) + (1/2 \* pr.area);

}

if(pr.isInCity=='n') {

pr.Tax=pr.area \* pr.ageofProp \* pr.basevalueofland;

}

}catch (Exception e) {

System.***out***.println("enter valid input");

}

}

System.***out***.println("Tax calculated successfully");

*property*();

break;

case 3 :

System.***out***.println("Display All Properties");

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

System.***out***.println("basevalueofland\t\t area\t\t ageofProp\t\t isInCity\t\t Tax");

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

for(Property\_2 pr : *arrlist*) {

System.***out***.println(pr.basevalueofland+"\t\t\t " +pr.area+"\t\t "+pr.ageofProp+"\t\t "+pr.isInCity+"\t\t "+pr.Tax);

}

*property*();

break;

case 4 : System.***out***.println("Back to main menu");

*options*();

break;

}

}

}

}

public static void vehicle(){

int length = 4;

System.***out***.println(" 1. ADD VEHICLE DETAILS \n 2. CALCULATE VEHICLE TAX \n 3. DISPLAY ALL VEHICLE \n 4. BACK TO MAIN MENU");

System.***out***.println("\nEnter your choice:\t");

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

int option = sc.nextInt();

for(int j=1;j<=length;j++){

if(option==j){

switch (option) {

case 1 :

*addvehicle*();

*vehicle*();

break;

case 2 :

*calculateVehicleTax*();

*vehicle*();

break;

case 3 :

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

System.***out***.println("\nREGISTRATION NO.\tBRAND\tMAX. VELOCITY\tNO. OF SEATS\t\tVEHICLE TYPE\t\tPURCHASE COST\t\tVEHICLE TAX");

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

*displayAllVehicles*();

*vehicle*();

break;

case 4 :

System.***out***.println("Back to main menu");

*options*();

}

}

}

}

static void addvehicle(){

System.***out***.println("\nENTER THE VEHICLE DETAILS -");

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

System.***out***.print("ENTER THE VEHICLE REGISTRATION NUMBER - ");

String regNo = sc.next();

System.***out***.print("ENTER BRAND OF THE VEHICLE - ");

String brand = sc.next();

System.***out***.print("ENTER THE MAXIMUM VELOCITY OF THE VEHICLE(KMPH) - ");

int velocity = sc.nextInt();

System.***out***.print("ENTER CAPACITY (NUMBER OF SEATS) OF THE VEHICLE - ");

int capacity = sc.nextInt();

System.***out***.println("CHOOSE THE TYPE OF THE VEHICLE -");

System.***out***.println("1. PETROL DRIVEN");

System.***out***.println("2. DIESEL DRIVEN");

System.***out***.println("3. CNG/LPG DRIVEN");

System.***out***.print("Choose the option: ");

int typeOption = sc.nextInt();

String type = "";

switch (typeOption) {

case 1:

type = "PETROL";

break;

case 2:

type = "DIESEL";

break;

case 3:

type = "CNG/LPG";

break;

default:

System.***err***.println("Invalid vehicle type. Defaulting to PETROL.");

type = "PETROL";

}

System.***out***.print("ENTER THE PURCHASE COST OF THE VEHICLE - ");

double purchaseCost = sc.nextDouble();

Vehicle2 vehicle = new Vehicle2(regNo, brand, velocity, capacity, type, purchaseCost);

*data*.add(vehicle);

}

static void calculateVehicleTax() {

System.***out***.println("\nCalculating vehicle tax...");

for (Vehicle2 vehicle : *data*) {

double taxRate = 0.0;

switch (vehicle.type) {

case "PETROL":

taxRate = 0.10;

break;

case "DIESEL":

taxRate = 0.11;

break;

case "CNG/LPG":

taxRate = 0.12;

break;

}

vehicle.vehicleTax = vehicle.velocity + vehicle.capacity + (taxRate \* vehicle.purchaseCost);

}

System.***out***.println("Vehicle tax calculation completed.");

}

static void displayAllVehicles() {

for (Vehicle2 vehicle : *data*) {

System.***out***.println(vehicle.regNo + "\t\t\t" + vehicle.brand + "\t\t" + vehicle.velocity + "\t\t" +

vehicle.capacity + "\t\t" + vehicle.type + "\t\t\t" + vehicle.purchaseCost +

"\t\t\t" + vehicle.vehicleTax);

}

}

static void total() {

double propertyTotal = 0.0;

double vehicleTotal = 0.0;

for (Property\_2 pr : *arrlist* ) {

propertyTotal += pr.Tax;

}

for (Vehicle2 vehicle : *data*) {

vehicleTotal += vehicle.vehicleTax;

}

double Total = propertyTotal+vehicleTotal;

int Total2 = *arrlist*.size()+*data*.size();

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

System.***out***.println("\nPARTICULAR:\t\t Quantity: \t\tTAX:");

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

System.***out***.println("PROPERTIES"+ " \t\t " +*arrlist*.size()+"\t\t\t" + propertyTotal );

System.***out***.println("Vehicles"+ " \t\t " +*data*.size()+"\t\t\t" + vehicleTotal );

System.***out***.println("Total"+ " \t\t\t " +Total2+"\t\t\t" +Total );

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

}

}

package tax;

public class Property\_2 {

double basevalueofland;

char isInCity;

int ageofProp;

double area;

double Tax;

public Property\_2(double basevalueofland, double area ,int ageofProp ,char isInCity ) {

super();

this.basevalueofland = basevalueofland;

this.isInCity = isInCity;

this.ageofProp = ageofProp;

this.area = area;

}

}

package tax;

public class Vehicle2 {

String regNo;

String brand;

int velocity;

int capacity;

String type;

double purchaseCost;

double vehicleTax;

Vehicle2(String regNo, String brand, int velocity, int capacity, String type, double purchaseCost) {

this.regNo = regNo;

this.brand = brand;

this.velocity = velocity;

this.capacity = capacity;

this.type = type;

this.purchaseCost = purchaseCost;

}

}