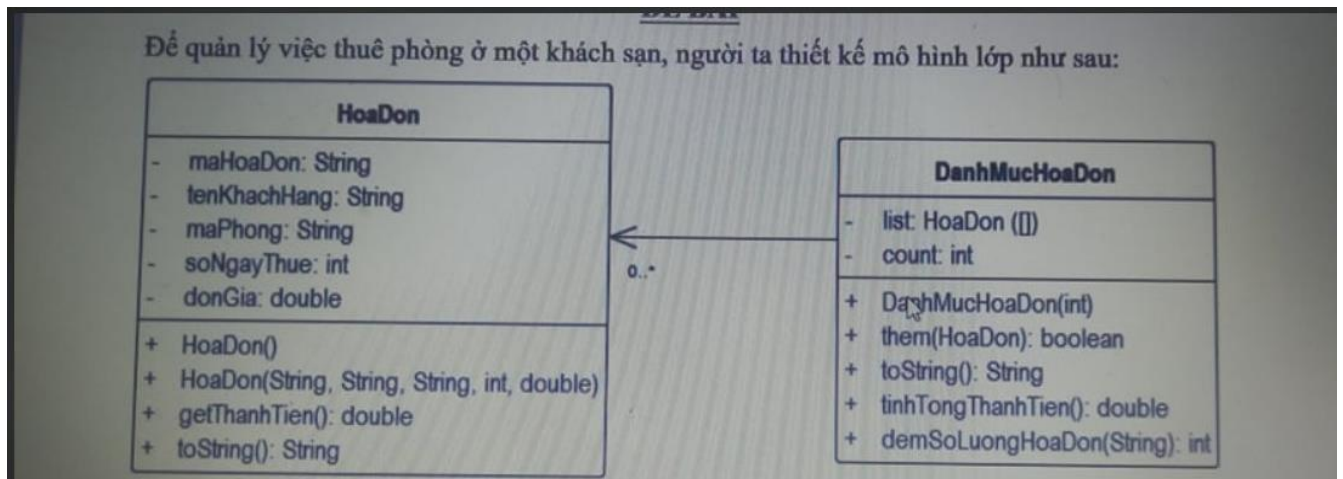


De 1



```
HoaDon.java x DanhMucHoaDon.java Test.java
1 package del;
2 import java.lang.String;
3 import java.text.DecimalFormat;
4 public class HoaDon {
5     public String maHoaDon;
6     public String tenKhachHang;
7     public String maPhong;
8     public int soNgayThue;
9     public double donGia;
10    public String getMaHoaDon() {
11        return maHoaDon;
12    }
13    public void setMaHoaDon(String maHoaDon) {
14        if(maHoaDon.isEmpty()){
15            this.maHoaDon = "Chua xac dinh !";
16        }else
17            this.maHoaDon = maHoaDon;
18    }
19    public String getTenKhachHang() {
20        return tenKhachHang;
21    }
22    public void setTenKhachHang(String tenKhachHang) {
23        if(tenKhachHang.isEmpty()){
24            this.tenKhachHang = "Chua xac dinh !";
25        }else
26            this.tenKhachHang = tenKhachHang;
27    }
28    public String getMaPhong() {
29        return maPhong;
30    }
31    public void setMaPhong(String maPhong) {
32        if(maPhong.isEmpty()){
33            this.maPhong = "Chua xac dinh !";
34        }else
35            this.maPhong = maPhong;
36    }
37    public int getSoNgayThue() {
38        return soNgayThue;
39    }
40    public void setSoNgayThue(int soNgayThue) {
41        if(soNgayThue > 0)
42            this.soNgayThue = soNgayThue;
43    }
}
```

```

35         this.maPhong = maPhong;
36     }
37     public int getSoNgayThue() {
38         return soNgayThue;
39     }
40     public void setSoNgayThue(int soNgayThue) {
41         if(soNgayThue > 0)
42             this.soNgayThue = soNgayThue;
43     }
44     public double getDonGia() {
45         return donGia;
46     }
47     public void setDonGia(double donGia) {
48         if(donGia > 0)
49             this.donGia = donGia;
50     }
51
52     public HoaDon() {
53         this("xxx", "xxx", "xxx", 1, 1);
54     }
55     public HoaDon(String maHoaDon, String tenKhachHang, String maPhong, int soNgayThue, double donGia) {
56         super();
57         setMaHoaDon(maHoaDon);
58         setTenKhachHang(tenKhachHang);
59         setMaPhong(maPhong);
60         setSoNgayThue(soNgayThue);
61         setDonGia(donGia);
62     }
63     public double getThanhTien ()
64     {
65         if(this.soNgayThue > 7)
66             return (this.soNgayThue * this.donGia - (this.donGia * 0.2) - (this.donGia * 0.2) ) ;
67         else
68             return this.soNgayThue * this.donGia;
69     }
70     @Override
71     public String toString() {
72         DecimalFormat df = new DecimalFormat("#,##0");
73         return String.format("%7s %-15s %8s %16d %15s %15s\n", maHoaDon, tenKhachHang,
74             maPhong, soNgayThue, df.format(donGia), df.format(getThanhTien()));
75     }
76 }
77 }

```

*HoaDon.java *DanhMucHoaDon.java × Test.java

```
1 package de1;
2
3 import java.text.DecimalFormat;
4 import java.util.Arrays;
5 public class DanhMucHoaDon {
6     public HoaDon[] list;
7     public int count;
8
9     public DanhMucHoaDon(int n) {
10         this.count = 0;
11         this.list = new HoaDon[n];
12     }
13
14     public boolean them (HoaDon hd) {
15         for (int i = 0; i < count; i++)
16             if (list[i].getMaHoaDon() == hd.getMaHoaDon())
17                 return false;
18         if (count >= list.length)
19             return false;
20         list[count] = hd;
21         count++;
22         return true;
23     }
24
25 }
26
27     public double tinhTongThanhTien() {
28         double tien = 0.00;
29         for (int i = 0; i < count; i++) {
30             tien += list[i].getThanhTien();
31         }
32         return tien;
33     }
34     public int demSoLuongHoaDon (String x) {
35         int temp=0;
36         for (int i = 0; i < count; i++) {
37             if(list[i].getMaPhong().equalsIgnoreCase(x) ) {
38                 temp++;
39             }
40         }
41         return temp;
42     }
43 }
```

```
44 @Override
45 public String toString() {
46     DecimalFormat df = new DecimalFormat("#,##0 VND");
47     System.out.printf("%-4s %-5s %-20s %-10s %-17s %-13s %-10s\n",
48         "STT", "Ma HD", "Ten KH", "Ma Phong", "So Ngay o",
49         "Don Gia", "Thanh Tien");
50     String dsItem = "";
51     String temp;
52     for (int i = 0; i < count; i++) {
53         if (i < 10)
54             temp = " ";
55         else
56             temp = "";
57         dsItem += " " + temp + (i + 1) + list[i] ;
58     }
59     return String.format("%s", dsItem);
60 }
61 }
62
63 }
```

```

1 package del;
2
3 import java.text.DecimalFormat;
4 import java.util.Scanner;
5
6 public class Test {
7     public static void main(String[] args) {
8         DanhMucHoaDon hd = new DanhMucHoaDon(5);
9         hd.them(new HoaDon("111", "Quoc Dai", "A11", 5, 200000));
10        hd.them(new HoaDon("112", "Jun Pham", "A22", 9, 200000));
11        hd.them(new HoaDon("113", "Ngo Kien Huy", "B55", 5, 300000));
12        hd.them(new HoaDon("114", "Hoang Vu", "B11", 2, 500000));
13        hd.them(new HoaDon("115", "Phuoc Thinh", "A11", 9, 300000));
14        System.out.println(hd);
15
16        DecimalFormat df = new DecimalFormat("#,##0 VND");
17        System.out.print("Tong tien cua tat ca hoa don: ");
18        System.out.println(df.format(hd.tinhTongThanhTien()));
19
20        Scanner sc = new Scanner(System.in);
21        System.out.print("Nhap ma phong: ");
22        String x = sc.nextLine();
23        System.out.print("So luong hoa don co ma phong: ");
24        System.out.print(hd.demSoLuongHoaDon(x));
25
26    }
27 }
28

```

Console ×

Test (13) [Java Application] C:\Users\VANANH\Downloads\eclipse-jee-2021-09-R-win32-x86_64\eclipse\plugins\org.eclip

| STT | Ma HD | Ten KH | Ma Phong | So Ngay o | Don Gia | Thanh Tien |
|-----|-------|--------------|----------|-----------|---------|------------|
| 1 | 111 | Quoc Dai | A11 | 5 | 200.000 | 1.000.000 |
| 2 | 112 | Jun Pham | A22 | 9 | 200.000 | 1.720.000 |
| 3 | 113 | Ngo Kien Huy | B55 | 5 | 300.000 | 1.500.000 |
| 4 | 114 | Hoang Vu | B11 | 2 | 500.000 | 1.000.000 |
| 5 | 115 | Phuoc Thinh | A11 | 9 | 300.000 | 2.580.000 |

Tong tien cua tat ca hoa don: 7.800.000 VND

Nhap ma phong:

<terminated> Test (13) [Java Application] C:\Users\VANANH\Downloads\eclipse-jee-2021-09-R-win32-x86_64\eclipse\p

| | | | | | | |
|---|-----|--------------|-----|---|---------|-----------|
| 2 | 112 | Jun Pham | A22 | 9 | 200.000 | 1.720.000 |
| 3 | 113 | Ngo Kien Huy | B55 | 5 | 300.000 | 1.500.000 |
| 4 | 114 | Hoang Vu | B11 | 2 | 500.000 | 1.000.000 |
| 5 | 115 | Phuoc Thinh | A11 | 9 | 300.000 | 2.580.000 |

Tong tien cua tat ca hoa don: 7.800.000 VND

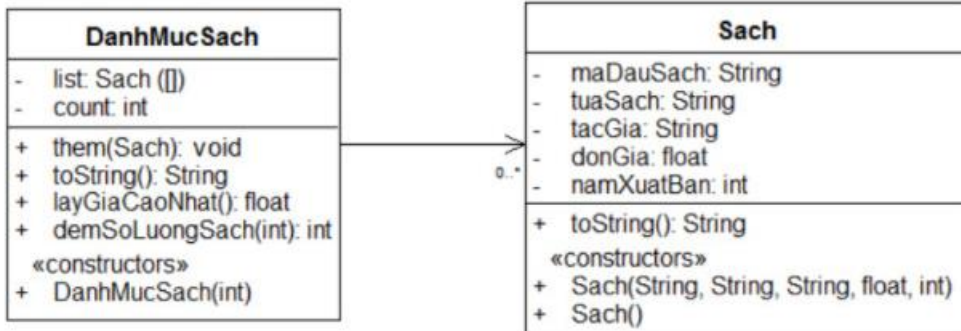
Nhap ma phong: A11

So luong hoa don co ma phong: 2

De 2

ĐỀ BÀI

Để quản lý việc nhập sách ở một cửa hàng bán sách, người ta thiết kế mô hình lớp như sau:



Cài đặt cho mô hình trên với các mô tả như sau:

```
Sach.java x  DanhMucSach.java  Test.java
1 package de2;
2
3 import java.text.DecimalFormat;
4
5 public class Sach {
6     public String maDauSach;
7     public String tuaSach;
8     public String tacGia;
9     public float donGia;
10    public int namXuatBan;
11    public String getMaDauSach() {
12        return maDauSach;
13    }
14    public void setMaDauSach(String maDauSach) {
15        if(maDauSach.isEmpty()){
16            this.maDauSach = "---";
17        }else
18            this.maDauSach = maDauSach;
19    }
20    public String getTuaSach() {
21        return tuaSach;
22    }
23    public void setTuaSach(String tuaSach) {
24        if(tuaSach.isEmpty()){
25            this.tuaSach = "---";
26        }else
27            this.tuaSach = tuaSach;
28    }
29    public String getTacGia() {
30        return tacGia;
31    }
```

```

Sach.java x DanhMucSach.java Test.java
41 public void setDocGia(float donGia) {
42     if(donGia > 0)
43         this.docGia = donGia;
44 }
45 public int getNamXuatBan() {
46     return namXuatBan;
47 }
48 public void setNamXuatBan(int namXuatBan) {
49     if(namXuatBan <= 2021)
50         this.namXuatBan = namXuatBan;
51 }
52
53 public Sach() {
54     this("----", "----", "----", 1, 2021);
55 }
56 public Sach(String maDauSach, String tuaSach, String tacGia, float docGia, int namXuatBan) {
57     super();
58     setMaDauSach(maDauSach);
59     setTuaSach(tuaSach);
60     setTacGia(tacGia);
61     setDocGia(docGia);
62     setNamXuatBan(namXuatBan);
63 }
64 @Override
65 public String toString() {
66     DecimalFormat df = new DecimalFormat("#,##0");
67     return String.format("%5s %-25s %-20s %-10s %-10d", maDauSach, tuaSach,
68         tacGia, df.format(docGia), namXuatBan);
69 }
70
71

```

```

Sach.java *DanhMucSach.java x Test.java
1 package de2;
2
3 import java.text.DecimalFormat;
4 import java.util.Arrays;
5
6 import de1.HoaDon;
7 public class DanhMucSach {
8     public Sach[] list;
9     public int count;
10
11     public DanhMucSach(int n) {
12         this.count = 0;
13         this.list = new Sach[n];
14     }
15 /**
16     public boolean them (Sach s) {
17         for (int i = 0; i < count; i++)
18             if (list[i].getMaDauSach() == s.getMaDauSach())
19                 return false;
20         if (count >= list.length)
21             return false;
22         list[count] = s;
23         count++;
24         return true;
25     }
26 */ public void them(Sach s) {
27     for (int i = 0; i < list.length; i++) {
28         if(list[i] == null){
29             list[i] = s;
30             break;

```

```

31     }
32     if(list[i] != null){
33         count++;
34     }
35     if(count == list.length)
36         System.out.println("Danh sach day ko the them !");
37 }
38
39 }
40
41 public int demSoLuongSach (int x) {
42     int temp=0;
43     for (int i = 0; i < count; i++) {
44         if(list[i].getNamXuatBan() == (x) ) {
45             temp++;
46         }
47     }
48     return temp;
49 }
50
51
52 public float layGiaCaoNhat() {
53     float max = 0;
54     for (int i = 0; i < count; i++) {
55         max = list[i].getDonGia() > max ? list[i].getDonGia() : max;
56     }
57     return max;
58 }
59 }

```

```

Sach.java *DanhMucSach.java Test.java
48     return temp;
49 }
50
51
52 public float layGiaCaoNhat() {
53     float max = 0;
54     for (int i = 0; i < count; i++) {
55         max = list[i].getDonGia() > max ? list[i].getDonGia() : max;
56     }
57     return max;
58 }
59 }
60 @Override
61 public String toString() {
62     DecimalFormat df = new DecimalFormat("#,##0 VND");
63     System.out.printf("%-5s %-2s %-25s %-20s %-10s %-10s\n", "STT", "Ma", "Tua Sach", "Tac Gia",
64         "Don Gia", "Nam XB");
65     String thongTinSach = "";
66     String temp;
67     for (int i = 0; i < count; i++) {
68         if (i < 10)
69             temp = " ";
70         else
71             temp = "";
72         thongTinSach += " " + temp + (i + 1) + list[i] + "\n";
73     }
74
75     return String.format("%s", thongTinSach);
76 }
77 }
78

```

```

Sach.java *DanhMucSach.java Test.java x
1 package de2;
2 import java.util.Scanner;
3 import java.text.DecimalFormat;
4 public class Test {
5
6     public static void main(String[] args) {
7         DanhMucSach ds = new DanhMucSach (10);
8         ds.them(new Sach("111","Tay du ky", "Ngo Thua An", 290000,2015));
9         ds.them(new Sach("112","Mat Biec", "Nguyen Nhat Anh", 45000,2000));
10        ds.them(new Sach("113","Truyen co tich Grim", "Jacod grim", 940000,2018));
11
12        // Xuat Danh muc sach
13        System.out.println(ds);
14        // Lay gia sach cao nhat
15        DecimalFormat df = new DecimalFormat("#,##0 VND");
16        System.out.print("Gia sach cao nhat : ");
17        System.out.println(df.format(ds.layGiaCaoNhat()));
18        // so luong Sach xuất bán nam x
19        Scanner sc = new Scanner(System.in);
20        System.out.print("Nhập nam XB : ");
21        int x = sc.nextInt();
22        System.out.print("So luong sach xuất bán : ");
23        System.out.print(ds.demSoLuongSach(x));
24
25
26    }
27
28 }
29

```

Test (14) [Java Application] C:\Users\VANANH\Downloads\eclipse-jee-2021-09-R-win32-x86_64\eclipse\p

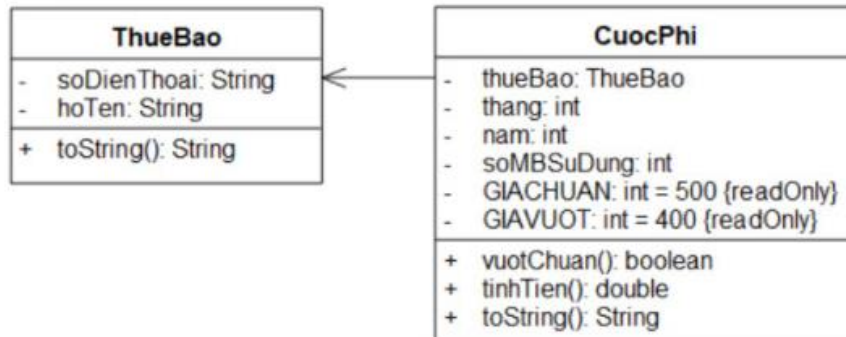
| STT | Ma Tua Sach | Tac Gia | Don Gia | Nam XB |
|-----|-------------------------|-----------------|---------|--------|
| 1 | 111 Tay du ky | Ngo Thua An | 290.000 | 2015 |
| 2 | 112 Mat Biec | Nguyen Nhat Anh | 45.000 | 2000 |
| 3 | 113 Truyen co tich Grim | Jacod grim | 940.000 | 2018 |

Gia sach cao nhat : 940.000 VND

Nhập nam XB :

De 3

Để quản lý việc thanh toán cước phí hàng tháng theo số megabyte sử dụng cho các thuê bao điện thoại, người ta thiết kế mô hình lớp như sau:



Cài đặt cho mô hình trên với các mô tả như sau:

1. [2 điểm] Cài đặt lớp **ThueBao**, trong lớp này có:

```
ThueBao.java × Test.java CuocPhi.java
1 package de3;
2
3 public class ThueBao {
4     public String soDienThoai;
5     public String hoTen;
6     public String getSoDienThoai() {
7         return soDienThoai;
8     }
9     public void setSoDienThoai(String soDienThoai) {
10         if(soDienThoai.isEmpty()){
11             this.soDienThoai = "un-known";
12         }else
13             this.soDienThoai = soDienThoai;
14     }
15     public String getHoTen() {
16         return hoTen;
17     }
18     public void setHoTen(String hoTen) {
19         if(hoTen.isEmpty()){
20             this.hoTen = "un-known";
21         }else
22             this.hoTen = hoTen;
23     }
24     public ThueBao() {
25         this("un-know", "un-know");
26     }
27     public ThueBao(String hoTen, String soDienThoai) {
28         super();
29         setHoTen(hoTen);
30         setSoDienThoai(soDienThoai);
31     }
}
```

```

ThueBao.java × Test.java CuocPhi.java
9 public void setSoDienThoai(String soDienThoai) {
10     if(soDienThoai.isEmpty()){
11         this.soDienThoai = "un-known";
12     }else
13         this.soDienThoai = soDienThoai;
14 }
15 public String getHoTen() {
16     return hoTen;
17 }
18 public void setHoTen(String hoTen) {
19     if(hoTen.isEmpty()){
20         this.hoTen = "un-known";
21     }else
22         this.hoTen = hoTen;
23 }
24 public ThueBao() {
25     this("un-know", "un-know");
26 }
27 public ThueBao(String hoTen, String soDienThoai) {
28     super();
29     setHoTen(hoTen);
30     setSoDienThoai(soDienThoai);
31 }
32 @Override
33 public String toString() {
34     // TODO Auto-generated method stub
35     return this.hoTen + "(" + this.soDienThoai + ")";
36 }
37
38 }
39

```

```

ThueBao.java Test.java CuocPhi.java ×
1 package de3;
2
3 import java.text.DecimalFormat;
4
5 public class CuocPhi {
6     public ThueBao thueBao;
7     public int thang;
8     public int nam;
9     public int soMBSuDung;
10    public int GIACHUAN = 500;
11    public int GIAVUOT = 400;
12
13    public ThueBao getThueBao() {
14        return thueBao;
15    }
16    public void setThueBao(ThueBao thueBao) {
17        this.thueBao = thueBao;
18    }
19    public int getThang() {
20        return thang;
21    }
22    public void setThang(int thang) {
23        if(thang >= 1 && thang <=12)
24            this.thang = thang;
25    }
26    public int getNam() {
27        return nam;
28    }
29    public void setNam(int nam) {
30        Calendar cal = Calendar.getInstance();
31        if (nam <= cal.get(Calendar.YEAR)){

```

```

ThueBao.java  Test.java  CuocPhi.java ×
32         this.nam = nam;
33     }else{
34         this.nam = 0;
35     }
36 }
37 public int getSoMBSuDung() {
38     return soMBSuDung;
39 }
40 public void setSoMBSuDung(int soMBSuDung) {
41     if(soMBSuDung >= 0)
42         this.soMBSuDung = soMBSuDung;
43 }
44
45 public int getGIACHUAN() {
46     return GIACHUAN;
47 }
48 public int getGIAVUOT() {
49     return GIAVUOT;
50 }
51 public CuocPhi() {
52     this(new ThueBao(),0,0,0);
53 }
54
55 public CuocPhi(ThueBao thueBao, int thang, int nam, int soMBSuDung) {
56     super();
57     setThueBao(thueBao);
58     setThang(thang);
59     setNam(nam);
60     setSoMBSuDung(soMBSuDung);
61 }

```

```

ThueBao.java  Test.java  CuocPhi.java ×
54
55 public CuocPhi(ThueBao thueBao, int thang, int nam, int soMBSuDung) {
56     super();
57     setThueBao(thueBao);
58     setThang(thang);
59     setNam(nam);
60     setSoMBSuDung(soMBSuDung);
61 }
62
63 public boolean vuotChuan() {
64     if(soMBSuDung > 200) {
65         return true;
66     }
67     return false;
68 }
69 public double tinhTien() {
70     if(vuotChuan()) {
71         return 200*GIACHUAN+((getSoMBSuDung() -200)*GIAVUOT);
72     }
73     else {
74         return getSoMBSuDung() *500;
75     }
76 }
77
78 @Override
79 public String toString() {
80     DecimalFormat df = new DecimalFormat("#,##0");
81     return String.format("%-30s %d/%4d %15d %15s",thueBao.toString(),thang,nam,soMBSuDung,df.format(tinhTien()));
82 }
83 }
84

```

ThueBao.java Test.java × CuocPhi.java

```
1 package de3;
2
3
4 public class Test {
5     static void tieuDe() {}
9     public static void main(String[] args) {
10         tieuDe();
11         ThueBao[] dsThueBao = new ThueBao[2];
12         dsThueBao[0] = new ThueBao("Pham Thi Tuyen","0522831046");
13         dsThueBao[1] = new ThueBao("Nguyen Minh Quan","0339424070");
14         CuocPhi[] danhSach = new CuocPhi[5];
15         danhSach[0] = new CuocPhi(dsThueBao[0], 1, 2018, 200);
16         danhSach[1] = new CuocPhi(dsThueBao[1], 2, 2018, 100);
17         for (int i = 0; i < danhSach.length; i++) {
18             System.out.println(danhSach[i].toString());
19
20         }
21         /**ThueBao tp1 = new ThueBao("Anh","0111111111");
22         ThueBao tp2 = new ThueBao("Tran Van Anh","0000000000");
23         CuocPhi cp1 = new CuocPhi(tp1, 1,2018,200);
24         CuocPhi cp2 = new CuocPhi(tp2, 2,2018,100);
25         System.out.println(cp1);
26         System.out.println(cp2);*/
27
28     }
29 }
30
```

Console ×

<terminated> Test (15) [Java Application] C:\Users\VANANH\Downloads\eclipse-jee-2021-09-R-w

| Ten thue bao | Thang/nam | So MB su dung | Thanh tien |
|------------------------------|-----------|---------------|------------|
| Pham Thi Tuyen(0522831046) | 1/2018 | 200 | 100.000 |
| Nguyen Minh Quan(0339424070) | 2/2018 | 100 | 50.000 |