

CSE212
SOFTWARE DEVELOPMENT METHODOLOGIES
SPRING 2024
LABWORK 3 - SECTION 1 & 2

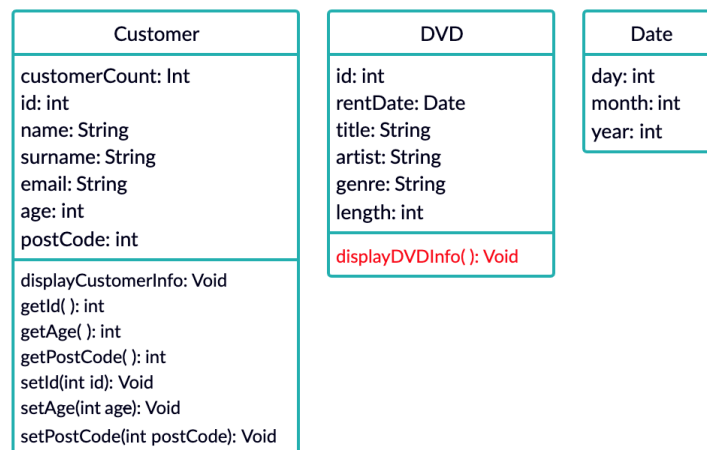
Below, you can find the description of your labwork for today. You can also find the expected output of this code in the Application Walkthrough section.

You are going to improve your Rental System on top of your previous week's labwork.

Remember the classes you have created the previous week. This week, you should create the following Java-style arrays:

```
Customer[] customerArray  
DVD[] dvdArray
```

Furthermore, you need accept a **DVD** without a *genre* when creating a new object of **DVD** class. If the *genre* is not specified, its default value will be "Other". Also, *rentDate* should be declared but **not** instantiated until the DVD is rented out.



When user starts your application, it should prompt the user with the following menu:

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer information
5. Display DVD information
6. Display number of customers.
0. Exit

When the user selects the **1st option**, they should be prompted to enter the relevant information for a new **Customer** object. The created object should then be added to the **customerArray**.

When the user selects the **2nd option or 3rd option**, they should be prompted to enter the relevant information for a new **DVD** object. The created object should then be added to the **dvdArray**. (Hint: Think about constructor overloading where one constructor contains a genre field while the other one does not.)

When the user selects the **4th option**, they should be asked to enter customer **id**, which is already an attribute in the Customer class. The program should search the **customerArray** to find the customer with the given **id**. If the customer exists, then the program should display the related customer's *id*, *name*, *surname*, *age*, *postcode* and *email*. If a customer with the given *id* is not found then the program should give an error and return to the main menu.

When the user selects **5th option**, they should be asked to enter DVD **id**, which is already an attribute in the DVD class. The program should search the **dvdArray** to find the DVD with the given **id**. If the DVD exists, then the program should display the related DVD's *id*, *title*, *genre*, *artist* and *length*. If a DVD with the given *id* is not found then the program should give an error and return to the main menu.

Application Walkthrough

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

1

Enter id

1000

Enter name

John

Enter surname

Blake

Enter age

34

Enter postal code

34724

Enter email

johnblake@gmail.com

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

1

Enter id

1001

Enter name

Mary

Enter surname

Jane

Enter age

20

Enter postal code

34555

Enter email

mary_jane@yahoo.com

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

2

Enter id

10

Enter title

The Lord of the Rings: The Fellowship of the Ring

Enter artist

Elijah Wood

Enter length

178

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

3

Enter genre

Thriller

Enter id

11

Enter title

Parasite

Enter artist

Song Kang-ho

Enter length

132

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

4

Enter customer id

2000

Customer with the given id is not found.

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

4

Enter customer id

1000

id:1000

name:John

surname:Blake
age:34
postal code:34724
email:johnblake@gmail.com

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

5

Enter DVD id

20

DVD with the given id is not found.

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

5

Enter DVD id

11

id:11

title:Parasite

artist:Song Kang-ho

genre:Thriller

length(in minutes):132

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

5

Enter DVD id

10

id:10

title:The Lord of the Rings: The Fellowship of the Ring

artist:Elijah Wood

genre:Other

length(in minutes):178

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information
5. Display DVD Information
6. Display number of customers.
0. Exit

6

Number of Customers:2

1. Create a new Customer
2. Create a new DVD
3. Create a new DVD with genre
4. Display Customer Information

- 5. Display DVD Information
- 6. Display number of customers.
- 0. Exit

0