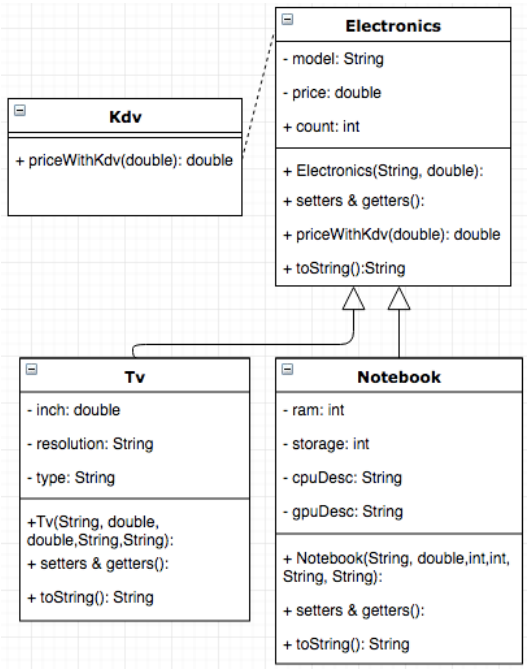
ATILIM UNIVERSITY
CMPE318 – Java Programming
2017 – 2018 Spring
Assignment I

Instructor: Güler Kalem
Assistants: Buğra Yener Şahinoğlu, Furkan Kurtaran
Date posted: 27.3.2018
Due date: 4.4.2018, 23:55

You're asked to design a shopping store which sells electronic devices. In this homework you'll create 4 classes. One of them will be used as main class. General structure of the project is given below as UML diagram:



You need to create a base class called Electronics, derive Notebook and TV classes and implement Kdv interface. You're going to create an array of Electronics objects inside of your main method. Your classes should be able to do:

Electronics Class:

- It should have a private String variable called model to hold the created objects model.
- It should have a private double variable called price to hold the created objects price.
- It should have an integer variable called count to count number of items created.
- It should have a constructor that takes parameters and do the assignment operations.
- It should have the necessary getters&setters methods for the variables.
- You should implement priceWithKdv(int) method that returns the final price.
- You should override the toString( ) method that returns the model and price.

Notebook Class:

- Notebook class should be extended from Electronics class.

- It should have private int variables called ram and storage to hold the notebook objects ram&storage values accordingly.
- It should have private String variables called CpuDesc and GpuDesc to hold the notebook objects CPU and GPU description accordingly.
- It should have a constructor that takes parameters and do the assignment operations.
- It should have the necessary getters&setters methods for the variables.
- You should override the toString( ) method acording to the output.

TV Class:

- Notebook class should be extended from Electronics class
- It should have private String variables called inch, resolution, type to hold the TV objects inch value, resolution value and type.
- It should have the necessary getters&setters methods for the variables.
- You should override the toString( ) method according to the output.

Kdv Interface:

- It should be implemented by Electronics class.
- It should have the declaration of priceWithKdv(double) method.

You need to see the following output after implementing the main part:

```
How many items you want to add?2
Which item do you want to add (1 for TV/2 for Notebook)?1
Enter inch:20
Enter resolution:4K
Enter type:LED
Enter model:Samsung
Enter price:3000
1 item added to the store.
Which item do you want to add (1 for TV/2 for Notebook)?2
Enter ram:8
Enter storage:500
Enter model:Asus
Enter price:3000
Enter cpu:i7
Enter gpu:Nvidia
2 item added to the store.
Items in the store:
Item[0]: Samsung costs 3540.0TL and has following features:LED TV, 20.0 inch, 4K resolution
Item[1]: Asus costs 3540.0TL and has following features:8 GB RAM, 500 GB storage, i7 CPU, Nvidia GPU
```

NOTES:

- Upload your homework to Moodle as a **single file**. (Give your first and last name as the file name: **aliVeli.java**). Also, at the beginning of your program and as a program comment, write your name and your surname.
- Format your output according to the sample run.
- Cheating will NOT be tolerated. Special software will be used to verify if the submitted homework is your original work or copied from someone/somewhere else. If any case of cheating is detected, at any time, **you will get ZERO from your homework.**
- You should use indentation and comment in your code.
- Late homeworks will NOT be graded.