

LAB211 Assignment

Type:	Long Assignment
Code:	J1.L.P0007
LOC:	400
Slot(s):	N/A

Title

Phone management in a store.

Background

Mr. Hoa has a phone shop, so Mr. Hoa wants to build a phone management software with the following basic functions such as: add, search, remove. The program must be designed so that adding a new phone is easy. Let's build your idea based OOP model.

Program Specifications

You are required to develop a Java program that shows the following menu:

Welcome to HKT Store - @ 2021 by <Student ID - Student Name >

Select the options below:

1. Add a phone
2. Search a phone by model
3. Remove the phone by model
4. Print the phone list in the descending order of Model
5. Quit

Each menu choice should invoke an appropriate function to perform the selected menu item. Your program must display the menu after each task and wait for the user to select another option until the user chooses to quit the program. Each phone has the following information: model (**cannot be modified, cannot be duplicated**), CPU, RAM, primary camera, screen-size, price, color, brand. Use collection to store the phones.

Function details

1. Function 1: Show menu 50Loc

The program displays a menu and asks users to input an option from 1 to 5.

2. Function 2: Build the data structure 50Loc

- Classes, abstract classes, and interfaces are required in this project.
- Using only one collection to store phone is required.

3. Function 3: Add a phone to the list 50Loc

- This function allows to add the new a phone to the collection.
 - User inputs new phone's information
 - The model cannot be duplicated. Other information must be validated.
- After the phone had added, the program asks whether you want to continue adding another phone or return to the menu.

4. Function 4: Search a phone by model 50Loc



- User inputs the model want to search.
 - The program shows all phone information that has name contain the search string.
 - If no phone is existed, the screen shows message "This phone Model does not exist".
- The program should be to options that ask whether the user wants to continue searching for another model or return to the menu.

5. Function 5: Remove the phone by model 100Loc

- User can remove any phone in the collection by Model.
 - Before the phone is removed, the program must show confirm message to user.

- Process of this function should be shown success or fail status.
- The program should be allowed user selecting option to returning to the menu.
- 6. Function 6: Print the phone -50Loc**
 - The program will print the phone list in the descending order of Model.
 - The program should be allowed user returning to the menu.
- 7. Function 7: Store the phone list to text file- 50 Loc**
 - The user enters the file name you want to save.
 - The program will save all information of the phone in the store to the file.
 - Process of this function should be shown success or fail status.
 - The program should be allowed user selecting option to returning to the menu.

Guidelines

-  The requirements of the assignment can be more flexible depending on your instructor.
-  The instructor will explain the requirement on the first slot of the assignment.