

# LAB 211 Assignment

Type:  
Code:  
LOC:  
Slot(s):

Long Assignment  
J1.L.P0002  
450  
N/A

## Title

The Hotel Management - Read and Write File.

## Background

- Mr. Dung wants to design a program to manage his hotels in HCM city. The hotels have properties. **Every hotel has properties** as
  - **Hotel\_id**, Hotel\_Name, Hotel\_Room\_Available, Hotel\_Address, Hotel\_Phone, Hotel\_Rating.
- This management program needs to have primary functions such as: **printing hotel data, search Hotel, add a hotel, edit a hotel, sort Hotels by Hotel\_Name.**
- Hotel information is **stored** in a **text or binary file** (named Hotel.dat).
- Let's build your idea based **OO model**. You are expected to employ features such as **abstraction, polymorphism, encapsulation, and inheritance** during the analysis and design process. This requirement is obligatory and must be satisfied for all students.

## Program Specifications

Designing a hotel management program which has basic functions such as:

- 1) Load data from file to program
- 2) Adding new Hotel.
- 3) Checking exits Hotel.
- 4) Updating Hotel information.
- 5) Deleting Hotel.
- 6) Searching Hotel.
  - 6.1 Searching by Hotel\_id.
  - 6.2 Searching by Hotel\_Address.
- 7) Displaying a hotel list (descending by Hotel\_Name).
- 8) Save data to file
- 9) Others Quit.

**\*\*\*Note: Students have to add some sample data of the hotel for the first time, like below:**

Hotel_id	Hotel_Name	Hotel_Room_Available	Hotel_Address	Hotel_Phone	Hotel_Rating
H01	Seraton	10	189 Ung Van Khiem, Ward 25, Binh Thanh District, Ho Chi Minh City	0911796099	4 star
H02	VinStar	5	200 Ung Van Khiem, Ward 25, Binh Thanh District, Ho Chi Minh City	0918940111	5 star
H03	OutString	7	300 D1, Ward 24, Binh Thanh District, Ho Chi Minh City	0988940222	6 star
H04	Betigar	8	189 Duong Quang Ham, Ward 5, Go Vap District, Ho Chi Minh City	0977940100	3 star

## Features:

This system has a main menu to ask users to select functions:

- ✓ **Function 0: Create Menu for program - 50 LOC**
- ✓ **Function 1: Load data from file to program – 25 LOC**
  - Load data from file to program ( At least 4 Hotels are available in the file).
- ✓ **Function 2: Add new hotel - 50 LOC**
  - The information is inputted from the keyboard, such as: Hotel\_id, Hotel\_Name, Hotel\_Room\_Available, Hotel\_Address, Hotel\_Phone, Hotel\_Rating.
  - Remember to the constraints must be checked.
  - Show a message after adding new hotel information: success or fail.
  - Ask continuously create a new hotel or go back to the main menu.
- ✓ **Function 3: Check to exist hotel– 50 LOC**
  - The system will check the ID\_Hotel inputted by user.
  - A message “Exist Hotel” should be displayed in the case the ID\_Hotel exists.
  - Otherwise, the message “No Hotel Found!” will be display.
  - This system will ask user whether he/she wants to go back to the main menu.
- ✓ **Function 4: Update hotel information – 50 LOC**
  - Require enter the Hotel’s id\_Hotel.
  - If the hotel does not exist, the notification “Hotel does not exist”. Otherwise, user can start input new information of hotel and update.
  - If new information is blank, then not change old information.
  - Then system must print out the result of the updating.
  - After updating, the program returns to the main screen.
- ✓ **Function 5: Delete hotel – 50 LOC**
  - User can delete any hotel base on id\_hotel inpputed by user.
  - Before the delete system must show confirm message with a message as “Do you ready want to delete this hotel”.
  - Show the result of the delete: success or fail.

- After delete, the program returns to the main screen.

✓ **Function 6: Search hotel**

Create a submenu that allows the user to select way to search: search by Hotel\_id or Hotel\_name.

**6.1: Search by Hotel\_Id – 50 LOC**

- User input hotel\_id want to search.
- The system will search id of hotel and return hotel that has hotel\_id same the search string.

**6.2: Search by Hotel\_Address – 50 LOC**

- The user enters address of hotel.
- The system will search address of hotel and returns all hotel that has hotel\_address contain with the search string.
- Show result: all information of hotel (descending by hotel\_room\_available) .

✓ **Function 7: Displaying a hotel list (descending by Hotel\_Name) – 50 LOC.**

- The system will show this list of hotels.
- Show result list: all information of hotel (descending by hotel\_name).
- Show data as table

✓ **Function 8: Save to file – 25 LOC.**

- Save data from program to file.

✓ **Function 9: Exit the program.**

- The above specifications are only basic information.
- You must perform a requirements analysis step and build the application according to real requirements.
- The lecturer will explain the requirement only once on the first slot of the assignment.

The End