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**

   o Load data from file to program (At least 4 Hotels are available in the file).

✓ **Function 2: Add new hotel - 50 LOC**

   o The information is inputted from the keyboard, such as: Hotel_id, Hotel_Name, Hotel_Room_Available, Hotel_Address, Hotel_Phone, Hotel_Rating.

   o Remember to the constraints must be checked.

   o Show a message after adding new hotel information: success or fail.

   o Ask continuously create a new hotel or go back to the main menu.

✓ **Function 3: Check to exist hotel– 50 LOC**

   o The system will check the ID_Hotel the first that is stored in the file.

   o A message "Exist Hotel" should be displayed in the case the ID_Hotel exists.

   o Otherwise, the message "No Hotel Found!" will be display.

   o This system will ask user whether he/she wants to go back to the main menu.

✓ **Function 4: Update hotel information – 50 LOC**

   o Require enter the Hotel's id_Hotel.

   o If the hotel does not exist, the notification "Hotel does not exist". Otherwise, user can start input new information of hotel and update.

   o If new information is blank, then not change old information.

   o Then system must print out the result of the updating.

   o After updating, the program returns to the main screen.

✓ **Function 5: Delete hotel – 50 LOC**

   o User can delete any hotel base on id_hotel inpputed by user.

   o Before the delete system must show confirm message with a message as "Do you ready want to delete this hotel".

   o Show the result of the delete: success or fail.

      o   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

      o   User input hotel_id want to search.

      o   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

      o   The user enters address of hotel.

      o   The system will search address of hotel and returns all hotel that has hotel_address contain with the search string.

      o   Show result: all information of hotel (descending by hotel_room_available) .

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

    o   The system will show this list of hotels.

    o   Show result list: all information of hotel (descending by hotel_name).

    o   Show data as table

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

    o   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