LAB211 Assignment

Type:	**Short Assignment**
Code:	**J1.S.P0073**
LOC:	**100**
Slot(s):	**2**

Title

Program to manage expense, name Handy Expense

Background

(Project detached from TTS)

Program Specifications

Write a file processing program using to manage expense, named Handy Expense

Display menu:

1. Add an expense
2. Display all expenses
3. Remove an expense
4. Exit

Selection of users:

1. If the user chooses 1, add an expense. Each expense includes **ID (int), date (String), number (double), content (String).** Which ID is increased automatically (i.e. expense ID = last expense ID + 1), the first expense ID: 1.

2. If the user chooses 2, The program displays a list of data as follows:

ID	Date	Amount of money	Content
1	11-Apr-2009	100	Tuition fee
2	20-Apr-2009	250	Rent house
3	30-Apr-2009	200	Food

Total: 550

3. If the user chooses 3, prompt user to input the ID program expenses should be deleted, if non existent ID, display a message: "Delete an expense fail".

4. If the user chooses 4, exit program.

Function details:

Function 1: Display a menu and ask users to select an option.

- Users run the program. The program prompts users to select an option.
- Users select an option, perform **Function 2**.

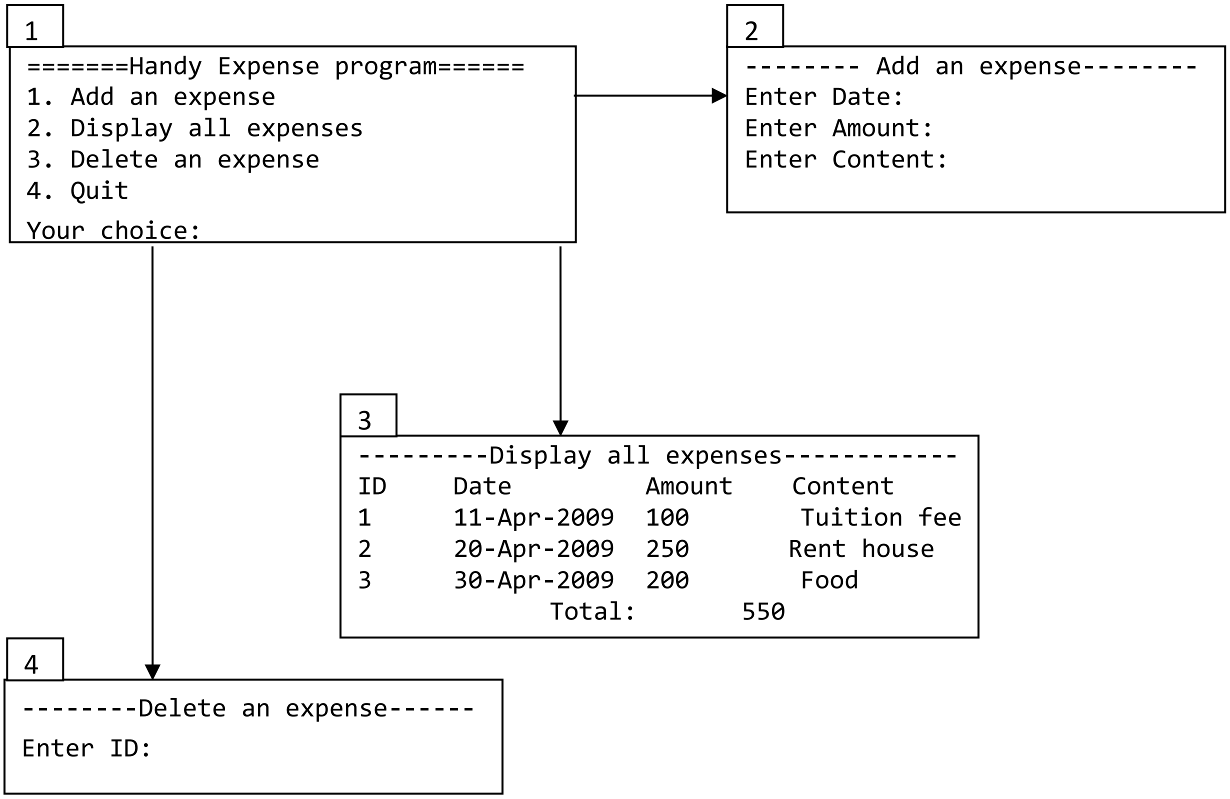
Function 2: Perform function based on the selected option.

- Option 1: Add an expense
  - Prompt users input information of the expense (ID, Date, Quantity, Content)
  - ID auto increase, ID = ID Max + 1 in the next time.
- Option 2: Display all expenses
  - Display the list of the expenses and total all the inputted expense amount
- Option 3: Delete an expense

- ○ Prompt users input expense ID of the expense they want to delete.
- ○ If ID does not exist, display on the screen: "Delete an expense fail"
- ○ If ID existed, delete and display on the screen :”Delete an expense successful”

- Option 4: Exit program.

Expectation of User interface:



```
=======Handy Expense program======
1. Add an expense
2. Display all expenses
3. Delete an expense
4. Quit
Your choice:
```

```
-------- Add an expense--------
Enter Date:
Enter Amount:
Enter Content:
```

```
---------Display all expenses------------
ID     Date          Amount    Content
1      11-Apr-2009   100        Tuition fee
2      20-Apr-2009   250       Rent house
3      30-Apr-2009   200        Food
             Total:       550
```

```
--------Delete an expense------
Enter ID:
```

Guidelines

Student implement methods
addExpense
displayAll
deleteExpense
in startup code.

Example:

Function 1: Add the expense.

- Implement function: public boolean addExpense(List<Expense> list, Date date, double amount, String content)
    - Input:
        - list: list of all expense.
        - date: date/month/year.
        - amount: amount of money.
        - content: Content.
    - Return values: Add expense status.

Function 2: Display list of expenses.

- Implement function: public void displayAll(List<Expense> list)
    - Input:
        - list: list of all expenses
    - Return values: void.

Function 3: Delete an expense

- Implement function: public boolean deleteExpense(List<Expense> list, Expense exp)
    - Input:
        - list: list all the expense.
        - Exp: The expense that users want to delete.
    - Return values: Delete the expense status.