

11) In this project, we will apply the concept of objected oriented programming and create a class called `account` that represents a bank account. It should contain the following information in the **private section**:

- Name of the owner (string)
- The current amount of money in the account (double)
- The monthly interest rate (double)

In the **public section**, we can use a constructor to create a new account and use the get functions to access the encapsulated information.

Furthermore, the following actions can be performed to a bank account. Write functions within the class `account` to perform these actions.

- withdraw an amount of money
- deposit an amount of money
- pay the monthly interest

In the main program, we will first ask the user to input the necessary information. A new bank account of the class `account` is created by the constructor using these information. Then the program will perform actions according to the sentinel values. After each action that changes the amount of money, the updated amount will be displayed. Notice that the program won't stop until the user enter an 'E'. Sample:

```
Enter the name of account owner: Chan Tai Man
Enter the current amount of money: 130000
Enter the monthly interest rates: 0.002
What would you like to do? (W: withdraw / D: deposit / P:
pay the monthly interest / E: exit)
Enter your action : W
Enter the amount to withdraw: 10000
Done, the account now has $120000
Enter your action: D
Enter the amount to deposit: 30000
Done, the account now has $150000
Enter your action: P
Done, the account now has $150300
Enter your action: E
Bye bye!
```