

Write a Java class **Account** to represent a bank account as per the following UML diagram, class Account has the following

**Attributes:**

**number:** int. Account number

**name:** String

**balance:** double

**type:** String. if account type is “Personal” there is no fees for transactions

If type is “Business” then you must deduct fee for the transactions. (deposit and withdraw) Fee is 50 SR or 2.5% of the transaction amount whichever is greater.

**Methods:**

+ **Account()**

+ **Account**(number:int, name:String, balance:double, type: String)

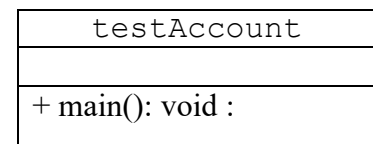
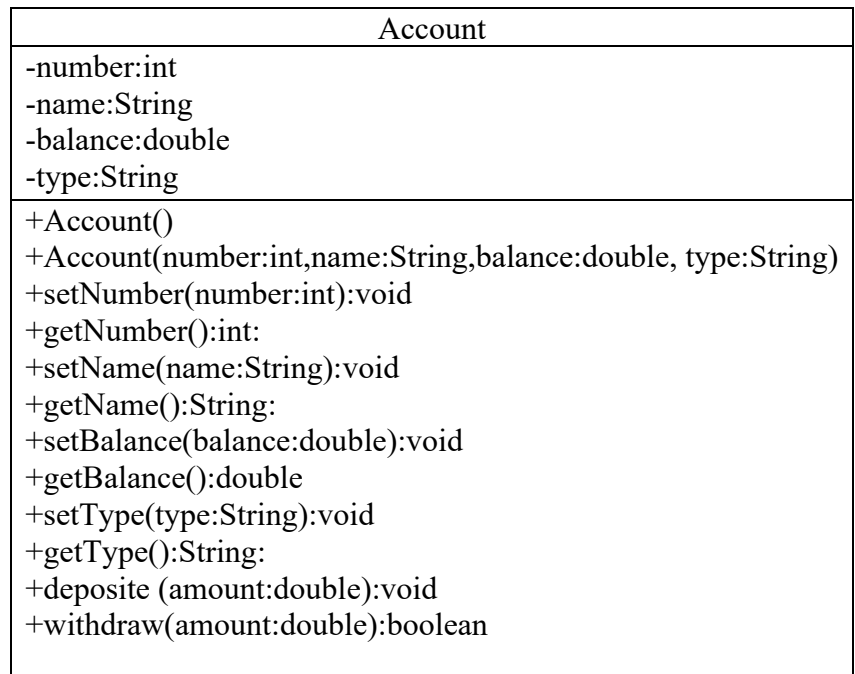
+ **setters/getters**

+ **withdraw**(amount:double):boolean. If there is enough money to cover the amount (and fee, if any) then decrease the balance by the transaction amount (and fee, if any) and return true. If there isn't enough money, display an appropriate message and return false.

+ **deposit** (amount:double):void. Increase the balance by the transaction amount. Minimum deposit is 100 SR. If amount is less than 100 do not deposit and print a message. (remember if type is business you should take fee).

Write a main class called testAccount that will do the following:

- Create account object.
- Read the account details from user.
- Print the following menu:
  1. Deposit
  2. Withdraw
  3. Show Balance
  4. Exit
- Repeat until user exits.



```
Please enter account number, name, balance and type: 11 Fahad 9000 Business
Choose your transaction:
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 6
Wrong input try again
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 2
Enter the amount you want to withdraw: 1000
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 3
Account number:11 For Mr.Fahad has balance of : 7950.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 1
Enter the amount you want to deposit: 1000
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 3
Account number:11 For Mr.Fahad has balance of : 8900.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 2
Enter the amount you want to withdraw: 8900
The balance is not enough! cannot withdraw!
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 3
Account number:11 For Mr.Fahad has balance of : 8900.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit:
> 4
Goodbye
```

```
Please enter account number, name, balance and type: 20 Hamad 9000 Personal
Choose your transaction:
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 3
Account number:20 For Mr.Hamad has balance of : 9000.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 1
Enter the amount you want to deposit: 2000
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 3
Account number:20 For Mr.Hamad has balance of : 11000.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 2
Enter the amount you want to withdraw: 11000
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 3
Account number:20 For Mr.Hamad has balance of : 0.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 1
Enter the amount you want to deposit: 20
No deposit! amount less than 100.
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 3
Account number:20 For Mr.Hamad has balance of : 0.0
1)Deposit      2)Withdraw    3)Show balance    4)Exit
> 4
Goodbye
```