

Bank Account Management System

1. Create **Account Class** with 4 fields, 2 methods and 1 parameterized Constructors (Class)

Field Name	Field Type	Modifier
accountNum	String	default
accountOwner	String	default
balance	double	default

Method Name	Return Type	Parameter
performPayment	void	amount:double
performDeposit	void	amount:double

Constructor Parameter
accountNum:String, accountOwner:String, balance:double

2. Create an Account object and run performWithdraw and performDeposit methods in **App Class** and display the balance of the object. (Class and Object)
3. Create **DebitAccount** and **CreditAccount** Class and extends from Account Class and add additional fields as below(Inheritance)

Field Name	Field Type	Modifier	Class
password	String	Default	DebitAccount
bonusPoint	Int	Default	CreditAccount
limit	Double	Default	CreditAccount

4. Override performPayment and performDeposit methods in CreditAccount Class. Add limit checking and bonusPoint calculation for both methods. (Method Override)
5. Overload performPayment and performDeposit methods in DebitAccount Class with additional password checking for both methods. (Method Overload)
6. Create an CreditAccount and DebitAccount object but declared as Account Class type and run performPayment and performDeposit methods in App Class and display balance of both objects. (Polymorphism)
7. Create an ArrayList with Account type and save all three objects. (Polymorphism)
8. Create required tables and perform CRUD operations using JDBC
9. Create method to display menu all available actions and system will take choice based on input from console and perform the selected actions. Menu should look like below:

```

Welcome to Standard Chartered Bank.
Please enter your choice
1 for Add new account
2 for Display all accounts
3 for Display account by ID
4 for Perform payment
5 for Perform deposit
6 for Delete selected account
7 for Exit the bank application

```

10. The add account should look like below

```

1
Please enter account details
Enter account type(Credit or Debit):
debit
Enter account number:
202
Enter account owner:
customer01
Enter balance:
3000
Enter password:
password

```

```

1
Please enter account details
Enter account type(Credit or Debit):
credit
Enter account number:
201
Enter account owner:
customer01
Enter balance:
30000
Enter limit:
50000
Account has been successfully added!

```

11. Display all accounts should display all accounts

```

2
CreditAccount [bonusPoint=30000, limit=50000.0, accountNum=201, balance=30000.0, accountOwner=customer01]
DebitAccount [password=password, accountNum=202, balance=3000.0, accountOwner=customer01]

```

12. Display account by Id should display account with the given Id.

```

3
Please enter the account id:
202
DebitAccount [password=password, accountNum=202, balance=3000.0, accountOwner=customer01]

```

13. Perform payment should check the type of the account and perform payment accordingly.

```

4
Please enter the account id:
201
Please enter the amount:
3000

```

```

4
Please enter the account id:
202
Please enter the amount:
200
Enter the password
password

```

14. Perform deposit should check the type of the account and perform payment accordingly

5	
Please enter the account id:	5
202	Please enter the account id:
Please enter the amount:	201
400	Please enter the amount:
Enter the password	4000
password	

15. Delete selected account should delete account based on the Id.

```
6
Please enter the account id:
202
Account has been deleted successfully!
```