**Day 13 Task :**

**Functional Specification:**

1. **Credit Balance**
   1. The user can choose to credit or add balance to his\her account.
   2. But the credited balance should always be positive.
2. **Debit Balance**
   1. The user can choose to debit balance from his\her account.
   2. The amount to be debited should be less than the available balance.
   3. And the amount should also be less than Rs. 30000.
3. **Mini Statement**
   1. Print the last five transactions made by the user.
   2. The mini statement should also display the date and time and the amount credited or debited.
4. **Account Summary(Passbook)**
   1. Print all the transactions made by the user till now.
   2. It should print the amount transferred with date and time and remaining balance.

**Technical Specification:**

1. **Credit Balance**
   1. To implement this a function is made that reads input from user, the amount to be credited.
   2. A conditional statement is used to check that input entered by user is positive.
2. **Debit Balance**
   1. To implement this a function is made that reads input from user, the amount to be debited.
   2. A conditional statement is used to check that input entered is less than the current available balance.
   3. A conditional statement is used to check that input entered is less than Rs. 30000.
3. **Mini Statement**
   1. To implement this a ArrayList of Strings is used to store transaction amount, time, date .
   2. A function is created to print the last five elements of the ArrayList by converting ArrayList into an array.
4. **Account Summary(Passbook)**
   1. To implement this a ArrayList of Strings is used to store transaction amount, time, date and description.
   2. A function is created to print all elements of the ArrayList.

**Collections used**

1. **Hash Map**

A hash map is used to store <AccountNumber,Account> Hash Map stores the values as given by the user and does not automatically sorts them and Account Number can be used retrieve the object of class Account.

1. **ArrayList<String>**

An array list is used to store mini statement i.e, transaction amount, time and date. An ArrayList is used as it is easier to use and it is not automatically sorted.

1. **ArrayList<String>**

An array list is used to store Account Summary i.e, transaction amount, time, date and description. An ArrayList is used as it is easier to use and it is not automatically sorted.

**Improvements Made**

* I have added a module pincheck() that provides authentication by asking user to enter the pin.
* Now mini statement also prints the remaining balance in the account after transaction.
* Now the program also prints passbook.