



Bank Management System

By:

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Why Bank Management System?

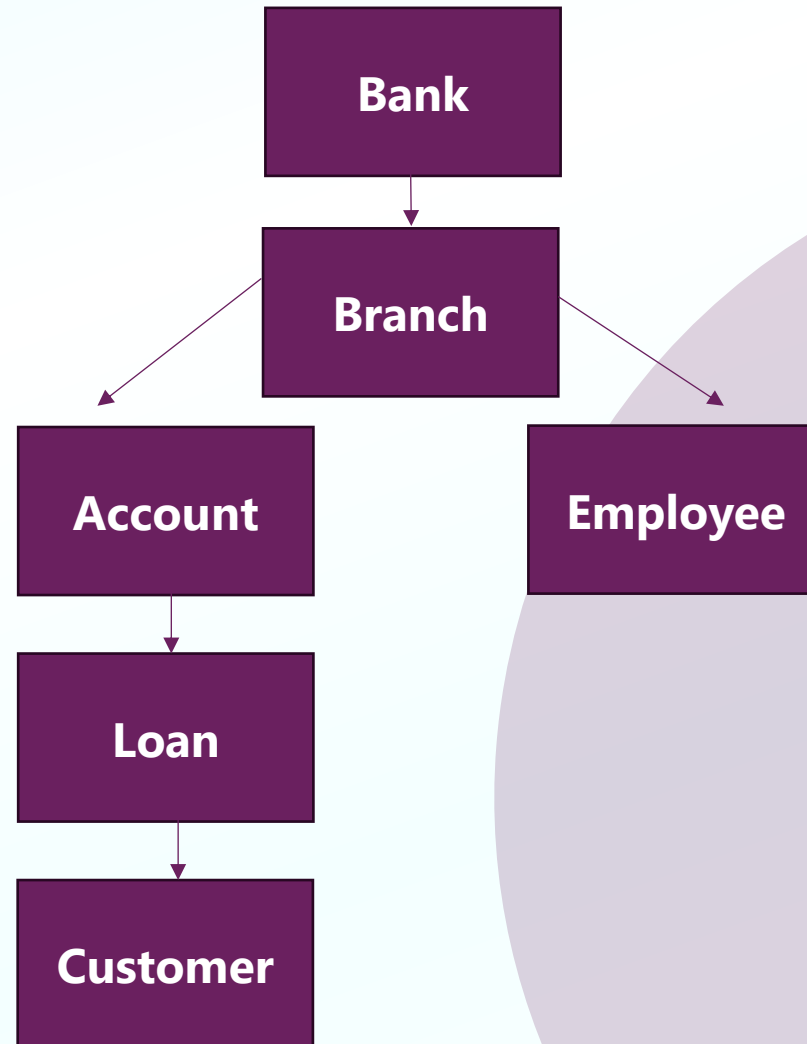
is a web-based application or mobile app used for paying financial institutions for the services they provide to the Bureau of the Fiscal Service. BMS also provides analytical tools to review, and approve compensation, budgets, and outflows.

What did I do to end the system?

- Searching in the beginning.
- Brain Storming on paper.



Bank Management System is consisting of 6 classes



Class Bank



```
1 import 'dart:io';
2
3 class Bank {
4   String _bankName = 'Elgamal Bank';
5   List<String> _bankBranchs = ['Cairo', 'Giza', 'Alexandria'];
6   List<String> _egyptCities = [
7     'Assiut', 'Aswan', 'Beheira', 'Bani Suef', 'Dakahlia', 'Damietta', 'Fayyoun',
8     'Gharbiya', 'Helwan', 'Ismailia', 'Kafr El Sheikh', 'Luxor', 'Marsa Matrouh',
9     'Monofiya', 'Minya', 'New Valley', 'North Sinai', 'Port Said', 'Qalioubiya',
10    'Qena', 'Red Sea', 'Sharqiya', 'Sohag', 'South Sinai', 'Suez', 'Tanta'
11  ];
12   late String _answerOfAddingBranch;
13   late String _answerOfRemovingBranch;
14
15   addBranch() {
16     print('Which is the place do you to add banch of ${_bankName} ,sir?');
17     print(_egyptCities);
18     _answerOfAddingBranch = stdin.readLineSync()!;
19     _bankBranchs.add(_answerOfAddingBranch);
20     print(_bankBranchs);
21     print('-----');
22   }
23
24   removeBranch() {
25     print('Which is the banch do you want to remove ,sir?');
26     print(_bankBranchs);
27     _answerOfRemovingBranch = stdin.readLineSync()!;
28     _bankBranchs.remove(_answerOfRemovingBranch);
29     print(_bankBranchs);
30     print('-----');
31   }
32
33   getAllBranches() {
34     print('All bank branchs are : ${_bankBranchs}');
35   }
36 }
```

Class Bank Result

Which is the place do you to add banch of Elgamal Bank ,sir?

[Assiut, Aswan, Beheira, Bani Suef, Daqahliya, Damietta, Fayyoun, Gharbiya, Helwan, Ismailia, Kafr El Sheikh, Luxor, Marsa Matrouh , Monofiya, Minya, New Valley, North Sinai, Port Said, Qalioubiya, Qena, Red Sea, Sharqiya, Sohag, South Sinai, Suez, Tanta]

Dakahlia

[Cairo, Giza, Alexandria, Dakahlia]

Which is the banch do you want to remove ,sir?

[Cairo, Giza, Alexandria, Dakahlia]

Giza

[Cairo, Alexandria, Dakahlia]

All bank branchs are : [Cairo, Alexandria, Dakahlia]

Class Branch



```
2  import 'dart:io';
3  import 'Bank.dart';
4
5  class Branch extends Bank {
6      List _departmentsInBranch = [
7          'Administration',
8          'Supervising',
9          'IT',
10         'Workers',
11         'Secretary',
12         'Technical Support',
13         'Staff'
14     ];
15
16     getDepatment() {
17         print('Which is deparment ypu are in it? ');
18         print(_departmentsInBranch);
19         String _answer = stdin.readLineSync()!;
20         print('Congratulations, you are in $_answer department');
21     }
22 }
```

Class Employee



TEAMWORK

```
2  import 'dart:io';
3  import 'Branch.dart';
4
5  class Employee extends Branch {
6      late String _answerOfname;
7      late String _answerOfEmail;
8      late String _answerOfPassword;
9      late int _answerOfId;
10
11     @override
12     getDepatment() {
13         return super.getDepatment();
14     }
15
16     addAccount() {
17         print('Enter your full name ,sir?');
18         _answerOfname = stdin.readLineSync()!;
19         print('Enter your national id ,sir?');
20         _answerOfId = int.parse(stdin.readLineSync()!);
21         print('Enter your e-mail@elgamelbank.banchDepartment.eg ,sir?');
22         _answerOfEmail = stdin.readLineSync()!;
23         print('Enter your personal password ,sir?');
24         _answerOfPassword = stdin.readLineSync()!;
25         print(
26             'Your information are :\nName : $_answerOfname\nNational ID : $_answerOfId\nE-mail : $_answerOfEmail');
27         print('-----');
28     }
29
30     removeAccount() {
31         print('Enter your e-mail@elgamelbank.eg ,sir?');
32         _answerOfEmail = stdin.readLineSync()!;
33         print('Enter your personal password ,sir?');
34         _answerOfPassword = stdin.readLineSync()!;
35         print('Now!! you are deleted your account');
36         print('-----');
37     }
38 }
```

Class Employee Result

```
Which is depatment you are in it?  
[Administration, Supervising, IT, Workers, Secretary, Technical Support, Staff]  
Administration  
Congratulations, you are in Administration department  
-----  
Enter your full name ,sir?  
Mohamed Elgamal  
Enter your national id ,sir?  
30204551302077  
Enter your e-mail@elgamalbank.banchDepartment.eg ,sir?  
mohamed@elgamalbank.administration.eg  
Enter your personal password ,sir?  
wqwnkljecwba3223@  
Your information are :  
Name : Mohamed Elgamal  
National ID : 30204551302077  
E-mail : mohamed@elgamalbank.administration.eg  
-----  
Enter your e-mail@elgamalbank.eg ,sir?  
mohamed@elgamalbank.administration.eg  
Enter your personal password ,sir?  
wqwnkljecwba3223@  
Now!! you are deleted your account  
-----
```


Class Account



```
1  import 'dart:io';
2  import 'Branch.dart';
3
4  class Account extends Branch {
5      String _accountName;
6      double _balance;
7      List _fees = ['dollar', 'euro', 'egp', 'sar', 'aed'];
8
9      Account(this._accountName, this._balance);
10
11     debitAccount(double amount) {
12         if (amount > 0 && amount <= _balance) {
13             _balance -= amount;
14             print(
15                 "$_accountName debited \${amount.toStringAsFixed(2)}. New balance: \${_balance.toStringAsFixed(2)}");
16         } else {
17             print("Invalid debit amount or insufficient funds.");
18         }
19         print('-----');
20     }
21
22     creditAccount(double amount) {
23         if (amount > 0) {
24             _balance += amount;
25             print(
26                 "$_accountName credited \${amount.toStringAsFixed(2)}. New balance: \${_balance.toStringAsFixed(2)}");
27         } else {
28             print("Invalid credit amount.");
29         }
30         print('-----');
31     }
32 }
```

Class Account - 2



```
33 changeFees() {
34     print('Which is type of fees do you have? :');
35     print(_fees);
36     String _answerOfHavingFees = stdin.readLineSync()!.toLowerCase();
37     if (_answerOfHavingFees == 'egp') {
38         print('Which is type of fees do you want to exchange to :');
39         String _answerOfExchanging = stdin.readLineSync()!.toLowerCase();
40         print('Write the amount of fees :');
41         double _answerOfAmount =
42             double.parse(stdin.readLineSync()!.toLowerCase());
43         if (_answerOfExchanging == 'dollar') {
44             _answerOfAmount *= 40;
45             print(_answerOfAmount);
46         } else if (_answerOfExchanging == 'sar') {
47             _answerOfAmount *= 10;
48             print(_answerOfAmount);
49         } else if (_answerOfExchanging == 'euro') {
50             _answerOfAmount *= 42;
51             print(_answerOfAmount);
52         } else if (_answerOfExchanging == 'aed') {
53             _answerOfAmount *= 10.5;
54             print(_answerOfAmount);
55         }
56     }
57     print('-----');
58 }
59 }
```

Class Loan



```
1  import 'dart:io';
2  import 'Account.dart';
3
4  class Loan extends Account {
5      List _loanTypes = [
6          'Personal Loans',
7          'Auto Loans',
8          'Student Loans',
9          'Mortgage Loans',
10         'Home Equity Loans',
11         'Credit-Builder Loans',
12         'Debt Consolidation Loans',
13         'Payday Loans'
14     ];
15     late String _answerLoan;
16
17     Loan(super.accountName, super.balance);
18
19     getLoan() {
20         print('Which loan do you want ?');
21         print(_loanTypes);
22         _answerLoan = stdin.readLineSync()!;
23         print('Loan: $_answerLoan');
24         print('-----');
25     }
26 }
```

Class Customer



```
5 class Customer extends Loan {
6     late String _customerName;
7     late String _phoneNumber;
8
9     Customer(super.accountName, super.balance, this._phoneNumber);
10
11     addAccount() {
12         print('Enter your full name ,sir?');
13         String _answerOfname = stdin.readLineSync()!;
14         print('Enter your national id ,sir?');
15         int _answerOfId = int.parse(stdin.readLineSync()!);
16         print('Enter your e-mail@elgambank.banchDepartment.eg ,sir?');
17         String _answerOfEmail = stdin.readLineSync()!;
18         print('Enter your personal password ,sir?');
19         String _answerOfPassword = stdin.readLineSync()!;
20         print(
21             || 'Your information are :\nName : $_answerOfname\nNational ID : $_answerOfId\nE-mail : $_answerOfEmail');
22     }
23
24     @override
25     getLoan() {
26         return super.getLoan();
27     }
28
29     @override
30     creditAccount(double amount) {
31         return super.creditAccount(amount);
32     }
33
34     @override
35     debitAccount(double amount) {
36         return super.debitAccount(amount);
37     }
38
39     @override
40     changeFees() {
41         return super.changeFees();
42     }
43 }
```

Class Customer Result

```
Enter your full name ,sir?
Mohamed Elgamal
Enter your national id ,sir?
30204551302077
Enter your e-mail@elgambank.banchDepartment.eg ,sir?
mohamed@elgambank.administration.eg
Enter your personal password ,sir?
wqwnkljecwba3223@
-----
Your information are :
Name : Mohamed Elgamal
National ID : 30204551302077
E-mail : mohamed@elgambank.administration.eg
-----
Which loan do you want ?
[Personal Loans, Auto Loans, Student Loans, Mortgage Loans, Home Equity Loans, Credit-Builder Loans, Debt Consolidation Loans, Payday Loans]
Student Loans
Loan: Student Loans
-----
Mohamed elgamal credited $2000.00. New balance: $3000.00
-----
Mohamed elgamal debited $2000.00. New balance: $1000.00
-----
Which is type of fees do you have? :
[dollar, euro, egp, sar, aed]
egp
Which is type of fees do you want to exchange to :
sar
Write the amount of fees :
1500
15000.0
-----
```

If you have any
question...
please keep it for
yourself
I'm not Google.

Thank you 😊

