

Banking App Program using HashMap Screenshots

1. Add Accounts & View All Accounts

BankingApp.java

```
1 package com.indium.bankingapp;
2
3 import java.util.Collection;
4
5 public class BankingApp {
6     private static Scanner in;
7     private static AccountService accountService;
8
9     public static void main(String[] args) {
10         in = new Scanner(System.in);
11         // accountService = new AccountServiceArrayListImpl();
12         // accountService = new AccountServiceHashMapImpl();
13         // accountService = new AccountServiceHashSetImpl();
14         // accountService = new AccountServiceLinkedListImpl();
15         // accountService = new AccountServiceTreeMapImpl();
16         // accountService = new AccountServiceTreeSetImpl();
17         System.out.print("Welcome to Banking Application!");
18         while (true) {
19             System.out.println("\n");
20             System.out.println("1. Add Accounts");
21             System.out.println("2. View All Accounts");
22             System.out.println("3. View Account");
23             System.out.println("4. Update Account");
24             System.out.println("5. Delete Account");
25             System.out.println("6. Exit");
26             System.out.print("Enter the option: ");
27
28             int option = 0;
29             option = Integer.parseInt(in.next());
30             switch (option) {
31                 case 1:
32                     addAccount();
33                     System.out.println("Account has been added successfully");
34                     break;
35                 case 2:
36                     viewAllAccounts();
37                     break;
38                 case 3:
39                     System.out.print("Enter the Account Id: ");
40                     int id = in.nextInt();
41                     Account acc = viewAccount(id);
42                     printHeader();
43                     printDetail(acc);
44                     break;
45                 case 4:
46                     updateAccount();
47                     System.out.println("Account has been updated successfully");
48                     break;
49                 case 5:
50                     deleteAccount();
51                     System.out.println("Account has been deleted successfully");
52                     break;
53                 case 6:
54                     System.exit(0);
55             }
56         }
57     }
58
59     private void addAccount() {
60         System.out.print("Enter Account Name: ");
61         String name = in.next();
62         System.out.print("Enter Account Type: ");
63         String type = in.next();
64         System.out.print("Enter Account Balance: ");
65         double balance = in.nextDouble();
66         System.out.print("Is Account Active (Enter true or false): ");
67         boolean active = in.nextBoolean();
68         accountService.addAccount(new Account(name, type, balance, active));
69     }
70
71     private void viewAllAccounts() {
72         System.out.println("\n");
73         System.out.println("Id\t\t\tName\t\t\tType\t\t\tBalance\t\t\tIs Active");
74         for (Account acc : accountService.getAllAccounts()) {
75             System.out.println(acc.getId() + "\t\t\t" + acc.getName() + "\t\t\t" + acc.getType() + "\t\t\t" + acc.getBalance() + "\t\t\t" + acc.isActive());
76         }
77     }
78
79     private Account viewAccount(int id) {
80         return accountService.getAccount(id);
81     }
82
83     private void printHeader() {
84         System.out.println("\n");
85         System.out.println("Id\t\t\tName\t\t\tType\t\t\tBalance\t\t\tIs Active");
86     }
87
88     private void printDetail(Account acc) {
89         System.out.println("\n");
90         System.out.println("Id\t\t\tName\t\t\tType\t\t\tBalance\t\t\tIs Active");
91         System.out.println(acc.getId() + "\t\t\t" + acc.getName() + "\t\t\t" + acc.getType() + "\t\t\t" + acc.getBalance() + "\t\t\t" + acc.isActive());
92     }
93
94     private void updateAccount() {
95         System.out.print("Enter the Account Id to be updated: ");
96         int id = in.nextInt();
97         System.out.print("Enter Account Name: ");
98         String name = in.next();
99         System.out.print("Enter Account Type: ");
100        String type = in.next();
101        System.out.print("Enter Account Balance: ");
102        double balance = in.nextDouble();
103        System.out.print("Is Account Active (Enter true or false): ");
104        boolean active = in.nextBoolean();
105        accountService.updateAccount(id, new Account(name, type, balance, active));
106    }
107
108    private void deleteAccount() {
109        System.out.print("Enter the Account Id to be deleted: ");
110        int id = in.nextInt();
111        accountService.deleteAccount(id);
112    }
113}
```

Console

BankingApp (4) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justi.openjdk
Welcome to Banking Application!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 1
Enter Account Name: SS Tella
Enter Account Type: Savings
Enter Account Balance: 1232
Is Account Active (Enter true or false): true
Account has been added successfully!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 1
Enter Account Name: Steffy
Enter Account Type: Savings
Enter Account Balance: 1232
Is Account Active (Enter true or false): true
Account has been added successfully!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 2

Id	Name	Type	Balance	Is Active
1	SS Tella	Savings	1232.0	true
2	Steffy	Savings	1232.0	true

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit

2. View Account, Update Account and Delete Account

BankingApp.java

```
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5 public class BankingApp {
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25             System.out.println("6. Exit");
26             System.out.print("Enter the option: ");
27
28             int option = 0;
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30             switch (option) {
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38                 case 3:
39                     System.out.print("Enter the Account Id: ");
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43                     printDetail(acc);
44                     break;
45                 case 4:
46                     updateAccount();
47                     System.out.println("Account has been updated successfully");
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49                 case 5:
50                     deleteAccount();
51                     System.out.println("Account has been deleted successfully");
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53                 case 6:
54                     System.exit(0);
55             }
56         }
57     }
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59     private void addAccount() {
60         System.out.print("Enter Account Name: ");
61         String name = in.next();
62         System.out.print("Enter Account Type: ");
63         String type = in.next();
64         System.out.print("Enter Account Balance: ");
65         double balance = in.nextDouble();
66         System.out.print("Is Account Active (Enter true or false): ");
67         boolean active = in.nextBoolean();
68         accountService.addAccount(new Account(name, type, balance, active));
69     }
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71     private void viewAllAccounts() {
72         System.out.println("\n");
73         System.out.println("Id\t\t\tName\t\t\tType\t\t\tBalance\t\t\tIs Active");
74         for (Account acc : accountService.getAllAccounts()) {
75             System.out.println(acc.getId() + "\t\t\t" + acc.getName() + "\t\t\t" + acc.getType() + "\t\t\t" + acc.getBalance() + "\t\t\t" + acc.isActive());
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79     private Account viewAccount(int id) {
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83     private void printHeader() {
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88     private void printDetail(Account acc) {
89         System.out.println("\n");
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91         System.out.println(acc.getId() + "\t\t\t" + acc.getName() + "\t\t\t" + acc.getType() + "\t\t\t" + acc.getBalance() + "\t\t\t" + acc.isActive());
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94     private void updateAccount() {
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100        String type = in.next();
101        System.out.print("Enter Account Balance: ");
102        double balance = in.nextDouble();
103        System.out.print("Is Account Active (Enter true or false): ");
104        boolean active = in.nextBoolean();
105        accountService.updateAccount(id, new Account(name, type, balance, active));
106    }
107
108    private void deleteAccount() {
109        System.out.print("Enter the Account Id to be deleted: ");
110        int id = in.nextInt();
111        accountService.deleteAccount(id);
112    }
113}
```

Console

BankingApp (4) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justi.openjdk
Enter the option: 3
Enter the Account Id: 1

Id	Name	Type	Balance	Is Active
1	SS Tella	Savings	1232.0	true

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 4
Enter the Account Id to be updated: 2
Enter Account Name: Hadi
Enter Account Type: Savings
Enter Account Balance: 1232
Is Account Active (Enter true or false): true
Account has been updated successfully!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 5
Enter the Account Id to be deleted: 1
Account has been deleted successfully!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 2

Id	Name	Type	Balance	Is Active
2	Hadi	Savings	1232.0	true

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit

3. Exit Option

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20             System.out.println("1. Add Accounts");
21             System.out.println("2. View All Accounts");
22             System.out.println("3. View Account");
23             System.out.println("4. Update Account");
24             System.out.println("5. Delete Account");
25             System.out.println("6. Exit");
26             System.out.print("Enter the option: ");
27
28             int option = 0;
29             option = Integer.parseInt(in.next());
30             switch (option) {
31                 case 1:
32                     addAccount();
33                     System.out.println("Account has been added successfully");
34                     break;
35                 case 2:
36                     viewAllAccounts();
37                     break;
38                 case 3:
39                     System.out.print("Enter the Account Id: ");
40                     int id = in.nextInt();
41                     Account acc = viewAccount(id);
42                     printHeader();
43                     printDetail(acc);
44                     break;
45                 case 4:
46                     updateAccount();
47             }
48         }
49     }
50 }
```

Console

```
BankingApp (4) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk
Enter the Account Id to be updated: 2
Enter Account Name: Hadi
Enter Account Type: Savings
Enter Account Balance: 1232
Is Account Active(Enter true or false): true
Account has been updated successfully!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 5
Enter the Account Id to be deleted: 1
Account has been deleted successfully!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 2

Id      Name  Type      Balance  Is Active
2       Hadi  Savings   1232.0   true

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 6
Thank you!!!

1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Exit
Enter the option: 6
Thank you!!!
```