Banking App Program using Collections with Stats Screenshots

1. Add Accounts & View All Accounts

```
Console X
                                                                                                                                                                                                                                                                                                                                                BankingApp (5) [Java Application] E\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk Welcome to Banking Application!
               3⊕ import java.util.Collection;
                                                                                                                                                                                                                                                                                                                                                 1. Add Accounts
                                                                                                                                                                                                                                                                                                                                                1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Print Statistics
           public class BankingApp {
private static Scanner in;
                                          private static AccountService accountService;
                                         public static void main(String[] args) {
                                                                                                                                                                                                                                                                                                                                                6. Print Statistics
7. Exit
Enter the option: 1
Enter Account Name: Stella
Enter Account Type: Savings
Enter Account Balance: 100000
Is Account Active(Enter true or false): true
Account has been added successfully!
                                                          in = new Scanner(System.in);
accountService = new AccountServiceHashMapImpl();
System.out.print("Welcome to Banking Application!");
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                                                          System.out.print("Welcome to Banking Application
while (true) {
    System.out.println("\n");
    System.out.println("1. Add Accounts");
    System.out.println("2. View All Accounts");
    System.out.println("3. View Account");
    System.out.println("4. Update Account");
    System.out.println("5. Delete Account");
    System.out.println("6. Print Statistics");
    System.out.println("7. Exit");
    System.out.println("7. Exit");
    System.out.println("8. Print Statistics");
    System.out.println("7. Exit");
    System.out.println("8. Exit");
    System.out.println("9. Exit");
    System.out.prin
                                                                                                                                                                                                                                                                                                                                                1. Add Accounts
                                                                                                                                                                                                                                                                                                                                                1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Print Statistics
7. Exit
                                                                            // Get option from user
int option = 0;
                                                                                                                                                                                                                                                                                                                                                7. Exit
Enter the option: 1
Enter Account Name: Steffy
Enter Account Type: Savings
Enter Account Balance: 200000
Is Account Active(Enter true or false): true
Account has been added successfully!
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                                                                            try {
                                                                           try {
    option = Integer.parseInt(in.next());
} catch (NumberFormatException e) {
    System.out.println("Invalid option. Please enter valicontinue;
                                                                           try {
   switch (option) {
                                                                                                                                                                                                                                                                                                                                                 1. Add Accounts
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                                                                                                                                                                                                                                                                                                                                                1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Print Statistics
7. Exit
                                                                                                               addAccount();
System.out.println("Account has been added succesbreak;
                                                                                             case 2:
                                                                                                             viewAllAccounts();
                                                                                                                                                                                                                                                                                                                                                7. Exit
Enter the option: 1
Enter Account Name: Hadi
Enter Account Type: Current
Enter Account Balance: 400000
Is Account Active(Enter true or false): true
Account has been added successfully!
                                                                                                            break;
                                                                                             case 3:
                                                                                                            System.out.print("Enter the Account Id: ");
int id = in.nextInt();
Account acc = null;
                                                                                                            try {
    acc = viewAccount(id);
```

```
🔝 BankingApp.java 🗡
                                                                               Console X
   package com.indium.bankingapp;
                                                                          A BankingApp (5) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.hu
   3⊕ import java.util.Collection;
                                                                              1. Add Accounts
                                                                              2. View All Accounts
 12 public class BankingApp {
                                                                              3. View Account
         private static Scanner in;
                                                                              4. Update Account
         private static AccountService accountService;
 14
                                                                              5. Delete Account
                                                                              6. Print Statistics
  16⊖
         public static void main(String[] args) {
                                                                              7. Exit
  17
             in = new Scanner(System.in);
                                                                              Enter the option: 1
             accountService = new AccountServiceHashMapImpl():
 18
                                                                              Enter Account Name: Eliza
             System.out.print("Welcome to Banking Application!");
 19
                                                                              Enter Account Type: Current
 20
             while (true) {
                                                                              Enter Account Balance: 500000
                 System.out.println("\n");
 21
                                                                              Is Account Active(Enter true or false): true
                 System.out.println("1. Add Accounts");
 22
                                                                              Account has been added successfully!
 23
                 System.out.println("2. View All Accounts");
 24
                 System.out.println("3. View Account");
                 System.out.println("4. Update Account");
 25
                                                                              1. Add Accounts
                 System.out.println("5. Delete Account");
 26
                                                                              2. View All Accounts
  27
                 System.out.println("6. Print Statistics");
                                                                              3. View Account
 28
                 System.out.println("7. Exit");
                                                                              4. Update Account
 29
                 System.out.print("Enter the option: ");
                                                                              5. Delete Account
  30
                                                                              6. Print Statistics
                 // Get option from user
  31
                                                                              7. Exit
 32
                 int option = 0;
                                                                              Enter the option: 2
 33
                 try {
                     option = Integer.parseInt(in.next());
  34
                                                                                 Тd
                                                                                               Name Type
                                                                                                                  Ralance
                                                                                                                                Ts Active
                 } catch (NumberFormatException e) {
 35
                                                                                             Stella Savings
                                                                                  1
                                                                                                                100000.0
                                                                                                                                 true
                     System.out.println("Invalid option. Please enter vali
  36
                                                                                             Steffy Savings
                                                                                                                200000.0
                                                                                  2
                                                                                                                                 true
 37
                     continue;
                                                                                                                400000.0
                                                                                  3
                                                                                               Hadi Current
                                                                                                                                 true
  38
                                                                                  4
                                                                                              Eliza Current
                                                                                                                500000.0
                                                                                                                                 true
  39
                 try {
```

2. View Account & Update Account

```
Console ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         🔑 BankingApp.java 🗵
                  package com.indium.bankingapp:
                                                                                                                                                                                                                                                                                            BankingApp (5) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.he
               ⊕ import java.util.Collection;
                                                                                                                                                                                                                                                                                            1. Add Accounts
2. View All Accounts
3. View Account
4. Update Account
5. Delete Account
6. Print Statistics
        12 public class BankingApp {
                                 private static AccountService;
private static AccountService;
                                 public static void main(String[] args) {
   in = new Scanner(System.in);
   accountService = new AccountServiceHashMapImpl();
   System.out.print("Welcome to Banking Application!");
                                                                                                                                                                                                                                                                                                      Exit
                                                                                                                                                                                                                                                                                            7. Exit
Enter the option: 3
Enter the Account Id: 1
                                                System.out.print("Welcome to Banking Application
while (true) {
    System.out.println("\n");
    System.out.println("1. Add Accounts");
    System.out.println("2. View All Accounts");
    System.out.println("3. View Account");
    System.out.println("4. Update Account");
    System.out.println("5. Delete Account");
    System.out.println("6. Print Statistics");
    System.out.println("7. Exit");
    System.out.println("7. Exit");
    System.out.println("8. Print Statistics");
    System.out.println("9. Exit");
    System.out.prin
                                                                                                                                                                                                                                                                                                                                                Name Type
Stella Savings
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Is Active
                                                                                                                                                                                                                                                                                                                                                                                                                               Balance
                                                                                                                                                                                                                                                                                                                                                                                                                       100000.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     true
                                                                                                                                                                                                                                                                                             1. Add Accounts
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                                                                                                                                                                                                                                                                                             2. View All Accounts
3. View Account
                                                                                                                                                                                                                                                                                              4. Update Account
                                                                                                                                                                                                                                                                                             5. Delete Account
                                                                                                                                                                                                                                                                                           5. Delete Account
6. Print Statistics
7. Exit
Enter the option: 4
Enter the Account Id to be updated: 2
Enter Account Name: Juli
Enter Account Type: Savings
Enter Account Balance: 60000
Is Account Active(Enter true or false): true
Account has been updated successfully!
                                                               // Get option from user
int option = 0;
                                                               try {
        33
34
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37
                                                              try {
    option = Integer.parseInt(in.next());
} catch (NumberFormatException e) {
    System.out.println("Invalid option. Please enter valid continue;
                                                                                                                                                                                                                                                                                             Account has been updated successfully!
        38
39
40
41
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                                                                                                                                                                                                                                                                                             1. Add Accounts
2. View All Accounts
3. View Account
                                                              try {
   switch (option) {
                                                                                                                                                                                                                                                                                            4. Update Account
5. Delete Account
6. Print Statistics
7. Exit
Enter the option: 2
                                                                             case 1:
                                                                                            addAccount();
        43
                                                                                System.out.println("Account has been added succesting break; case 2:
        44
                                                                                            viewAllAccounts();
                                                                                                                                                                                                                                                                                                                                                  Name Type
Stella Savings
Juli Savings
Hadi Current
                                                                                                                                                                                                                                                                                                       Td
                                                                                                                                                                                                                                                                                                                                                                                                                              Ralance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ts Active
        48
                                                                                            break;
                                                                                                                                                                                                                                                                                                                                                                                                                      100000.0
600000.0
400000.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     true
true
                                                                              case 3:
        49
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                                                                                           System.out.print("Enter the Account Id: ");
int id = in.nextInt();
Account acc = null;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      true
                                                                                                                                                                                                                                                                                                                                                       Eliza Current
        53
54
                                                                                            try {
                                                                                                                                                                                                                                                                                             1. Add Accounts
2. View All Accounts
                                                                                                            acc = viewAccount(id);
                                                                                            } catch (InputMismatchException e) {
```

3. Delete Account, Print Statistics & Exit

```
Console ×
🕖 BankingApp.java 🗡
                                                                                                                                                                                                                   BankingApp (5) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.hot
              package com.indium.bankingapp;
                                                                                                                                                                                                                     1. Add Accounts
          ⊕ import java.util.Collection;
                                                                                                                                                                                                                     2. View All Accounts
                                                                                                                                                                                                                    3. View Account
     12 public class BankingApp {
                                                                                                                                                                                                                  4. Update Account
5. Delete Account
                         private static Scanner in;
private static AccountService accountService;

    Print Statistics
    Exit

                          public static void main(String[] args) {
                                                                                                                                                                                                                    Enter the option: 5
Enter the Account Id to be deleted:
                                    in = new Scanner(System.in);

accountService = new AccountServiceHashMapImpl();

System.out.print("Welcome to Banking Application!");
                                                                                                                                                                                                                    Account has been deleted successfully!
     19
                                   System.out.print("Welcome to Banking Application
while (true) {
    System.out.println("\n");
    System.out.println("1. Add Accounts");
    System.out.println("2. View All Accounts");
    System.out.println("3. View Account");
    System.out.println("4. Update Account");
    System.out.println("5. Delete Account");
    System.out.println("6. Print Statistics");
    System.out.println("7. Exit");
    System.out.println("7. Exit");
    System.out.println("8. Print Statistics");
    Syst
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21
22
23
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25
                                                                                                                                                                                                                    1. Add Accounts
                                                                                                                                                                                                                    2. View All Accounts
3. View Account
4. Update Account
                                                                                                                                                                                                                   5. Delete Account
                                                                                                                                                                                                                    6. Print Statistics
7. Exit
     26
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                                                                                                                                                                                                                    Enter the option: 6
                                                                                                                                                                                                                    a] No of accounts which has balance more than 1 lac
b] Show no of account by account type
c] Show no of accounts by account type with sorting
                                               // Get option from user
                                              int option = 0;
try {
                                                                                                                                                                                                                    dl Show avg balance by account type
                                                                                                                                                                                                                    e] list account ids whose account name contains given name
Enter an option: a
a] No of accounts which has balance more than 1 lac: 2
                                                          option = Integer.parseInt(in.next());
      35
36
37
                                              } catch (NumberFormatException e) {
    System.out.println("Invalid option. Please enter vali
                                                          continue;
     38
39
40
                                                                                                                                                                                                                    2. View All Accounts
                                                          switch (option) {
                                                                                                                                                                                                                    3. View Account
    41
                                                                                                                                                                                                                    4. Update Account
5. Delete Account
                                                          case 1:
    42
43
44
45
46
47
                                                                    addAccount();
                                                                                                                                                                                                                     6. Print Statistics
                                                                    System.out.println("Account has been added succes
                                                                                                                                                                                                                     7. Exit
                                                                    break;
                                                          case 2:
                                                                                                                                                                                                                     a] No of accounts which has balance more than 1 lac
                                                                    viewAllAccounts();
                                                                                                                                                                                                                    b] Show no of account by account type
c] Show no of accounts by account type with sorting
d] Show avg balance by account type
    48
                                                                    break;
    49
50
51
                                                          case 3:
                                                                    System.out.print("Enter the Account Id: ");
int id = in.nextInt();
                                                                                                                                                                                                                     e] List account ids whose account name contains given name
                                                                                                                                                                                                                    Enter an option: b
b] Show no of account by account type: {Savings=2, Current=1}
                                                                    Account acc = null;
                                                                    try {
```

```
■ Console ×
🕖 BankingApp.java 🗵
       package com.indium.bankingapp;
                                                                                                                           BankingApp (5) [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjd
                                                                                                                           1. Add Accounts
     3 mport java.util.Collection;
                                                                                                                            2. View All Accounts
                                                                                                                           3. View Account
  12 public class BankingApp {
                                                                                                                           4. Update Account
              private static Scanner in;
private static AccountService accountService;
  13
                                                                                                                           5. Delete Account
   14
                                                                                                                           6. Print Statistics
                                                                                                                            7. Exit
              public static void main(String[] args) {
  16⊖
                                                                                                                           Enter the option: 6
                     in = new Scanner(System.in);
accountService = new AccountServiceHashMapImpl();
                                                                                                                            a] No of accounts which has balance more than 1 lac
  18
                                                                                                                           bl Show no of account by account type
   19
                     System.out.print("Welcome to Banking Application!");
                                                                                                                            c] Show no of accounts by account type with sorting
                     while (true) {
  20
                           System.out.println("\n");
System.out.println("1. Add Accounts");
                                                                                                                           dl Show avg balance by account type
  21
                                                                                                                            e] List account ids whose account name contains given name
  22
                                                                                                                           Enter an option: c
                           System.out.println("2. View All Accounts");
System.out.println("3. View Account");
  23
                                                                                                                           c] Show no of accounts by account type with sorting: {Current=1, Savings=2}
  24
                           System.out.println("4. Update Account");
System.out.println("5. Delete Account");
  25
  26
27
                                                                                                                           1. Add Accounts
                           System.out.println("6. Print Statistics");
System.out.println("7. Exit");
                                                                                                                           2. View All Accounts
  28
                                                                                                                           3. View Account
   29
                           System.out.print("Enter the option: ");
                                                                                                                           4. Update Account
   30
                                                                                                                           5. Delete Account
   31
                           // Get option from user
                                                                                                                           6. Print Statistics
   32
33
                           int option = 0;
                                                                                                                            7. Exit
                           try {
                                                                                                                           Enter the option: 6
                           option = Integer.parseInt(in.next());
} catch (NumberFormatException e) {
   34
35
                                                                                                                            a] No of accounts which has balance more than 1 lac
                                                                                                                           bl Show no of account by account type
                                 System.out.println("Invalid option. Please enter valicontinue;
   36
37
                                                                                                                               Show no of accounts by account type with sorting
                                                                                                                           dl Show avg balance by account type
   38
                                                                                                                            e] List account ids whose account name contains given name
                           try {
   39
                                                                                                                           Enter an option: d
   40
                                 switch (option) {
                                                                                                                           d] Show avg balance by account type: {Savings=350000.0, Current=500000.0}
  41
  42
                                       addAccount():
  43
                                                                                                                           1. Add Accounts
                                        System.out.println("Account has been added succes
                                                                                                                           2. View All Accounts
  45
                                       break:
                                                                                                                           3 View Account
   46
                                 case 2:
                                                                                                                           4. Update Account
                                       viewAllAccounts();
  47
                                                                                                                           5. Delete Account
   48
                                       break;
                                                                                                                           6. Print Statistics
  49
                                 case 3:
                                                                                                                           7. Exit
                                       System.out.print("Enter the Account Id: ");
  50
                                                                                                                           Enter the option: 6
                                       int id = in.nextInt();
Account acc = null;
  51
52
                                                                                                                           a] No of accounts which has balance more than 1 lac
b] Show no of account by account type
   53
                                       try {
                                                                                                                            c] Show no of accounts by account type with sorting
                                             acc = viewAccount(id);
   54
                                                                                                                           d] Show avg balance by account type
                                       } catch (InputMismatchException e) {
                                                                                                                            ■ Console ×

    ■ BankingApp,java ×
                                                                                                                           BankingApp (5) [Java Application] E\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk
Enter the option: 6
         package com.indium.bankingapp;
                                                                                                                           Enter the option: 6
al No of accounts which has balance more than 1 lac
b] Show no of account by account type
c] Show no of accounts by account type with sorting
d] Show any balance by account type
e] List account ids whose account name contains given name
       mport java.util.Collection;
    12 public class BankingApp {
               private static AccountService accountService;
                                                                                                                           Enter an option: d
                                                                                                                           dl Show avg balance by account type: {Savings=350000.0. Current=500000.0}
               public static void main(String[] args) {
                     lic static void main(String[] args) {
   in = new Scanner(System.tn);
   accountService = new AccountServiceHashMapImpl();
   System.out.print("Welcome to Banking Application!");
   while (true) {
        System.out.println("\n");
        System.out.println("2. View All Accounts");
        System.out.println("2. View All Account");
        System.out.println("3. View Account");
        System.out.println("4. Update Account");
        System.out.println("5. Delete Account");
        System.out.println("6. Print Statistics");
        System.out.println("7. Exit");
        System.out.println("7. Exit");
        System.out.println("Enter the option: ");
}
    18
19
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22
                                                                                                                           2. View All Accounts
3. View Account
                                                                                                                          3. View Account
4. Update Account
5. Delete Account
6. Print Statistics
7. Exit
Enter the option: 6
a] No of accounts which has balance more than 1 lac
b) Show no of account by account type
c] Show no of accounts by account type with sorting
d) Show avg balance by account type
e] List account ids whose account name contains given name
Enter an option: e
Enter the name: li
e] List account ids whose account name contains given name: [2, 4]
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46
47
                            // Get option from user
int option = 0;
                            try {
                                   {
option = Integer.parseInt(in.next());
                           } catch (NumberFormatException e) {
   System.out.println("Invalid option. Please enter vali
                                  continue:

    View All Accounts
    View Account

                           try {
   switch (option) {
                                                                                                                           4. Update Account
5. Delete Account
6. Print Statistics
7. Exit
                                  case 1:
                                        addAccount();
System.out.println("Account has been added succes
                                                                                                                           Enter the option: 7
                                                                                                                           Thank you!!!
                                         break;
                                  case 2:
                                        viewAllAccounts();
                                                                                                                           1. Add Accounts
2. View All Accounts
3. View Account
                                       break;
    48
49
50
51
52
53
54
                                  case 3:
                                        s 3:
System.out.print("Enter the Account Id: ");
int id = in.nextInt();
Account acc = null;
                                                                                                                           4. Update Account
5. Delete Account
6. Print Statistics
7. Exit
Enter the option:
                                        try {
                                               acc = viewAccount(id):
                                        } catch (InputMismatchException e) {
```