

ASSIGNMENT 1

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Fundamentals Of Java Programming

BCA (AI & DATA SCIENCE)

- Problem Statement:

Design and implement a banking application that allows users to manage their bank accounts through various operations such as creating accounts, depositing money, withdrawing money, and viewing account details. The application should incorporate the concepts of Java features, control structures, arrays, and strings as per the syllabus.

- Code:

```
1- import java.util.Scanner;
2
3- public class BankingSystem {
4     // Action constants
5     static final int ADD_MONEY = 1;
6     static final int WITHDRAW_MONEY = 2;
7     static final int CHECK_WALLET = 3;
8     static final int EXIT_APP = 4;
9
10    public static void main(String[] args) {
11        Scanner scan = new Scanner(System.in);
12        int wallet = 18745; // Starting amount
13        int action;
14
15        do {
16            System.out.println("\n--- BankingSystem Menu ---");
17            System.out.println(ADD_MONEY + ". Add Money");
18            System.out.println(WITHDRAW_MONEY + ". Withdraw Money");
19            System.out.println(CHECK_WALLET + ". Check Wallet");
20            System.out.println(EXIT_APP + ". Quit");
21            System.out.print("Choose option: ");
22            action = scan.nextInt();
23
24            switch (action) {
25                case ADD_MONEY:
26                    System.out.print("Enter amount to add: ");
27                    int add = scan.nextInt();
28                    wallet += add;
29                    System.out.println(add + " added successfully.");
30                    break;
31
32                case WITHDRAW_MONEY:
33                    System.out.print("Enter amount to withdraw: ");
34                    int take = scan.nextInt();
35                    if (take <= wallet) {
36                        wallet -= take;
37                        System.out.println(take + " withdrawn.");
```

```

38     } else {
39         System.out.println("Not enough amount to be withdrawn.");
40     }
41     break;
42
43     case CHECK_WALLET:
44         System.out.println("Current Wallet Balance: " + wallet);
45         break;
46
47     case EXIT_APP:
48         System.out.println("Session ended. Thank you!");
49         break;
50
51     default:
52         System.out.println("Invalid input. Try again.");
53     }
54 } while (action != EXIT_APP);
55
56 scan.close();
57 }
58 }

```

- Output:

```

--- BankingSystem Menu ---
1. Add Money
2. Withdraw Money
3. Check Wallet
4. Quit
Choose option: 1
Enter amount to add: 4500
4500 added successfully.

--- BankingSystem Menu ---
1. Add Money
2. Withdraw Money
3. Check Wallet
4. Quit
Choose option: 3
Current Wallet Balance: 23245

--- BankingSystem Menu ---
1. Add Money
2. Withdraw Money
3. Check Wallet
4. Quit
Choose option:

```