

ASSIGNMENT-8

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Q.1. Pooja would like to transaction X amount from a Banking application. The application only accepts the transaction if Pooja's account balance has enough cash to perform the transaction (including bank charges). For each successful withdrawal the bank charges Rs 100. An application requires to perform this operation for that Pooja wants to login with username and password. Application accepts password from the following constraint:

- At least 1 letter between [a-z]**
- At least 1 number between [0-9]**
- At least 1 letter between [A-Z]**
- At least 1 character from [\$#@]**

Minimum length of password: 6

-Maximum length of password: 12

Construct a program in Java to perform above operations in Banking application: check Login, transaction Details.

Ans: -

```
import java.util.Scanner;

public class BankingApplication {

    private static final int BANK_CHARGES = 100;
    private static int balance = 1000;
    private static Scanner scanner = new Scanner(System.in);
    private static String username = "pooja";
    private static String password = "Pooja@123";
    public static void main(String[] args) {
        boolean isLoggedIn = login();
```

```
if (isLoggedIn) {
    displayMenu();
}
else {
    System.out.println("Invalid username or password. Exiting...");
    System.exit(0);
}
}

private static boolean login() {
    System.out.print("Enter your username: ");
    String enteredUsername = scanner.nextLine();
    System.out.print("Enter your password: ");
    String enteredPassword = scanner.nextLine();
    return enteredUsername.equals(username) &&
enteredPassword.equals(password);
}

private static void displayMenu() {
    System.out.println("Welcome to the Banking Application");
    System.out.println("1. Check Balance");
    System.out.println("2. Withdraw Money");
    System.out.println("3. Deposit Money");
    System.out.println("4. Transfer Money");
    System.out.println("5. Exit");
    System.out.print("Enter your choice: ");
    int choice = scanner.nextInt();
    switch(choice)
{
```

```
case 1:
    checkBalance();
    break;
case 2:
    withdrawMoney();
    break;
case 3:
    depositMoney();
    break;
case 4:
    transferMoney();
    break;
case 5:
    System.out.println("Thank you for using our Banking Application");
    System.exit(0);
    break;
default:
    System.out.println("Invalid choice. Please try again.");
    displayMenu();
}
}
private static void checkBalance() {
    System.out.println("Your current balance is: " + balance);
    displayMenu();
}
private static void withdrawMoney() {
    System.out.println("Enter the amount you want to withdraw: ");
    int amount = scanner.nextInt();
```

```
int totalAmount = amount + BANK_CHARGES;
if (totalAmount > balance) {
    System.out.println("Insufficient balance!");
} else {
    balance -= totalAmount;
    System.out.println("Your transaction was successful. Your new balance is:
" + balance);
}
displayMenu();
}

private static void depositMoney() {
    System.out.println("Enter the amount you want to deposit: ");
    int amount = scanner.nextInt();
    balance += amount;
    System.out.println("Your deposit was successful. Your new balance is: " +
balance);
    displayMenu(); }

private static void transferMoney() {
    System.out.println("Enter the recipient's account number: ");
    int recipientAccountNumber = scanner.nextInt();
    System.out.println("Enter the amount you want to transfer: ");
    int amount = scanner.nextInt();
    int totalAmount = amount + BANK_CHARGES;
    if (totalAmount > balance) {
        System.out.println("Insufficient balance!");
    }
else {
    balance -= totalAmount;
```



```

        System.out.println("Your transfer was successful. Your new balance is: " +
balance);
    }
    displayMenu();
}
}

```

OUTPUT

```

PROBLEMS 18 OUTPUT DEBUG CONSOLE TERMINAL
Enter your username: pooja
Enter your password: Pooja@123
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 1
Your current balance is: 1000
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 2
Enter the amount you want to withdraw:
500
Your transaction was successful. Your new balance is: 400
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 3
Enter the amount you want to deposit:
5000
Your deposit was successful. Your new balance is: 5400
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 4
Enter the recipient's account number:
9576
Enter the amount you want to transfer:
2000
Your transfer was successful. Your new balance is: 3300
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 1
Your current balance is: 3300
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 2
Enter the amount you want to withdraw:
1500
Your transaction was successful. Your new balance is: 1700
Welcome to the Banking Application
1. Check Balance
2. Withdraw Money
3. Deposit Money
4. Transfer Money
5. Exit
Enter your choice: 5
Thank you for using our Banking Application
PS D:\VS CODE\JAVA PROGRAM\ASSIGNMENT>

```