

APPENDIX

(Coding)

1. Main Class

```
Import java.util.ArrayList;
Import java.util.Scanner;
```

```
Class BankAccount
```

```
    { Private double
    balance;
    Private ArrayList<String> transactionHistory;
```

```
    Public BankAccount(double initialBalance)
    {Balance = initialBalance;
    transactionHistory = new ArrayList<>();
    }
```

```
// Method to transfer money to a phone number
```

```
Public boolean transferMoney(double amount, String phoneNumber)
    {If (amount > 0 && amount <= balance)
    { Balance -= amount;
    transactionHistory.add("Transferred $" + amount + " to phone number: " +
phoneNumber);
    return true;
    }
    System.out.println("Insufficient balance or invalid amount.");
    Return false;
    }
```

```
// Method to view transaction history
```

```
Public void viewTransactionHistory() {
    If (transactionHistory.isEmpty())
    { System.out.println("No transactions
yet.");
    } else {
    For (String transaction : transactionHistory)
    {System.out.println(transaction);
    }
    }
}
```

// Method to pay bill

```
Public void payBill(String subscriptionName, String email, double amount)
{
    If (amount > 0 && amount <= balance)
    {
        Balance -= amount;
        transactionHistory.add("Paid $" + amount + " for subscription: " +
subscriptionName + " (Email: " + email + ")");
    }
    else {
        System.out.println("Insufficient balance or invalid amount.");
    }
}
```

// Method to check balance

```
Public double getBalance() {
    Return balance;
}
}
```

Public class Main {

Public static void main(String[] args)

```
{
    Scanner scanner = new
Scanner(System.in);
```

// Create a new bank account with an initial balance of \$1000

```
BankAccount account = new BankAccount(10000000.0);
```

// Menu loop

```
While (true) {
    System.out.println("\n----- Banking Application-----");
    System.out.println("1. Transfer Money");
    System.out.println("2. View Transaction History");
    System.out.println("3. Pay Bill");
    System.out.println("4. Exit");
    System.out.print("Enter your choice: ");
```

```
Int choice = scanner.nextInt();
```

```
Scanner.nextLine(); // Consume newline
```

Switch (choice)

{Case 1:

// Transfer Money using phone number

```
System.out.print("Enter phone number to transfer money to: ");
```

```
String phoneNumber = scanner.nextLine();
```

```
System.out.print("Enter amount to transfer: ");
```

```

Double amount = scanner.nextDouble();
If (account.transferMoney(amount, phoneNumber))
    {System.out.println("Transfer successful.");
    }
Break;

```

Case 2:

```

// View Transaction History
System.out.println("Transaction History:");
Account.viewTransactionHistory();
Break;

```

Case 3:

```

// Pay Bill
System.out.print("Enter subscription name (e.g., Netflix): ");
String subscriptionName = scanner.nextLine();
System.out.print("Enter subscription email (e.g., user@example.com): ");
String email = scanner.nextLine();
System.out.print("Enter bill amount: ");
Double billAmount = scanner.nextDouble();
Account.payBill(subscriptionName, email, billAmount);
Break;

```

Case 4:

```

// Exit
System.out.println("Exiting... Thank you for using the banking app.");
Scanner.close();
Return;

```

Default:

```

System.out.println("Invalid choice. Please try again.");

```

```

    }
}
}
}

```