

	School of Engineering & Technology	
	Department: SOET	Session: 2025-26
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	Course Name: Java Programming	Faculty: Dr. Manish Kumar

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COURSE - B.TECH CSE
(UI/UX)
JAVA PROGRAMMING

CODE:

```
import java.util.InputMismatchException;
import java.util.Scanner;

class Account {

    private int accountNumber;
    private String accountHolderName;
    private double balance;
    private String email;
    private String phoneNumber;

    public Account(int accountNumber, String accountHolderName, double balance, String
email, String phoneNumber) {
        this.accountNumber = accountNumber;
        this.accountHolderName = accountHolderName;
        this.balance = balance;
        this.email = email;
        this.phoneNumber = phoneNumber;
    }

    public void deposit(double amount) {
        if (amount > 0) {
            this.balance += amount;
            System.out.println("Deposit of $" + String.format("%.2f", amount) + " was
successful.");
            System.out.println("Current balance is now: $" + String.format("%.2f",
this.balance));
        } else {
            System.out.println("Error: Deposit amount must be positive.");
        }
    }

    public void withdraw(double amount) {
        if (amount <= 0) {
            System.out.println("Error: Withdrawal amount must be positive.");
        } else if (amount > this.balance) {
            System.out.println("Error: Insufficient funds. You only have $" +
String.format("%.2f", this.balance) + " in your account.");
        } else {
            this.balance -= amount;
            System.out.println("Withdrawal of $" + String.format("%.2f", amount) + " was
successful.");
        }
    }
}
```



```

        showAccountDetails(scanner);
        break;
    case 5:
        updateContact(scanner);
        break;
    case 6:
        System.out.println("Thank you for using the Banking Application.
Goodbye!");
        break;
    default:
        System.out.println("Invalid choice. Please enter a number
between 1 and 6.");
    }
} catch (InputMismatchException e) {
    System.out.println("Invalid input. Please enter a number.");
    scanner.nextLine();
    choice = 0;
}
} while (choice != 6);

scanner.close();
}

public static void printMenu() {
    System.out.println("\n===== Welcome to the Banking Application! =====");
    System.out.println("1. Create a new account");
    System.out.println("2. Deposit money");
    System.out.println("3. Withdraw money");
    System.out.println("4. View account details");
    System.out.println("5. Update contact details");
    System.out.println("6. Exit");
    System.out.print("Enter your choice: ");
}

public static void createAccount(Scanner scanner) {
    if (accountCount >= accounts.length) {
        System.out.println("Sorry, the bank cannot create any more accounts at this
time.");
        return;
    }

    System.out.println("\n--- Create New Account ---");
    System.out.print("Enter account holder name: ");
    String name = scanner.nextLine();

    double initialDeposit = -1;
    while (initialDeposit < 0) {
        System.out.print("Enter initial deposit amount: ");
        try {
            initialDeposit = scanner.nextDouble();
            if (initialDeposit < 0) {
                System.out.println("Initial deposit cannot be negative.");
            }
        }
    }
}

```

```

        } catch (InputMismatchException e) {
            System.out.println("Invalid amount. Please enter a valid number.");
            scanner.nextLine();
        }
    }
    scanner.nextLine();

    System.out.print("Enter email address: ");
    String email = scanner.nextLine();
    System.out.print("Enter phone number: ");
    String phone = scanner.nextLine();

    Account newAccount = new Account(nextAccountNumber, name, initialDeposit, email,
phone);
    accounts[accountCount] = newAccount;

    System.out.println("\nAccount created successfully with Account Number: " +
nextAccountNumber);

    accountCount++;
    nextAccountNumber++;
}

public static Account findAccount(int accountNumber) {
    for (int i = 0; i < accountCount; i++) {
        if (accounts[i].getAccountNumber() == accountNumber) {
            return accounts[i];
        }
    }
    return null;
}

public static void performDeposit(Scanner scanner) {
    System.out.print("\nEnter account number to deposit into: ");
    try {
        int accNum = scanner.nextInt();
        Account account = findAccount(accNum);

        if (account != null) {
            System.out.print("Enter amount to deposit: ");
            double amount = scanner.nextDouble();
            account.deposit(amount);
        } else {
            System.out.println("Account not found.");
        }
    } catch (InputMismatchException e) {
        System.out.println("Invalid input. Please enter numbers only.");
        scanner.nextLine();
    }
}

public static void performWithdrawal(Scanner scanner) {
    System.out.print("\nEnter account number to withdraw from: ");

```

```

    try {
        int accNum = scanner.nextInt();
        Account account = findAccount(accNum);

        if (account != null) {
            System.out.print("Enter amount to withdraw: ");
            double amount = scanner.nextDouble();
            account.withdraw(amount);
        } else {
            System.out.println("Account not found.");
        }
    } catch (InputMismatchException e) {
        System.out.println("Invalid input. Please enter numbers only.");
        scanner.nextLine();
    }
}

public static void showAccountDetails(Scanner scanner) {
    System.out.print("\nEnter account number to view details: ");
    try {
        int accNum = scanner.nextInt();
        Account account = findAccount(accNum);

        if (account != null) {
            account.displayAccountDetails();
        } else {
            System.out.println("Account not found.");
        }
    } catch (InputMismatchException e) {
        System.out.println("Invalid input. Please enter a valid account number.");
        scanner.nextLine();
    }
}

public static void updateContact(Scanner scanner) {
    System.out.print("\nEnter account number to update details: ");
    try {
        int accNum = scanner.nextInt();
        scanner.nextLine();

        Account account = findAccount(accNum);

        if (account != null) {
            System.out.print("Enter new email address: ");
            String newEmail = scanner.nextLine();
            System.out.print("Enter new phone number: ");
            String newPhone = scanner.nextLine();
            account.updateContactDetails(newEmail, newPhone);
        } else {
            System.out.println("Account not found.");
        }
    } catch (InputMismatchException e) {
        System.out.println("Invalid input. Please enter a valid account number.");
    }
}

```

```
        scanner.nextLine();  
    }  
}  
}
```

OUTPUTS:

For option 1;

```
===== Welcome to the Banking Application! =====  
1. Create a new account  
2. Deposit money  
3. Withdraw money  
4. View account details  
5. Update contact details  
6. Exit  
Enter your choice: 1  
  
--- Create New Account ---  
Enter account holder name: KRISH  
Enter initial deposit amount: 10000  
Enter email address: KRISH@GMAIL.COM  
Enter phone number: 9873123485  
  
Account created successfully with Account Number: 1001
```

For option 2;

```
===== Welcome to the Banking Application! =====  
1. Create a new account  
2. Deposit money  
3. Withdraw money  
4. View account details  
5. Update contact details  
6. Exit  
Enter your choice: 2  
  
Enter account number to deposit into: 1001  
Enter amount to deposit: 20000  
Deposit of $20000.00 was successful.  
Current balance is now: $30000.00
```

For option 3;

```
===== Welcome to the Banking Application! =====  
1. Create a new account  
2. Deposit money  
3. Withdraw money  
4. View account details  
5. Update contact details  
6. Exit  
Enter your choice: 3  
  
Enter account number to withdraw from: 1001  
Enter amount to withdraw: 10000  
Withdrawal of $10000.00 was successful.  
Remaining balance is now: $20000.00
```

For option 4;

```
===== Welcome to the Banking Application! =====  
1. Create a new account  
2. Deposit money  
3. Withdraw money  
4. View account details  
5. Update contact details  
6. Exit  
Enter your choice: 4  
  
Enter account number to view details: 1001  
  
--- Account Details ---  
Account Number: 1001  
Account Holder Name: KRISH  
Balance: $20000.00  
Email: KRISH@GMAIL.COM  
Phone Number: 9873123485  
-----
```


For option 5;

```
===== Welcome to the Banking Application! =====  
1. Create a new account  
2. Deposit money  
3. Withdraw money  
4. View account details  
5. Update contact details  
6. Exit  
Enter your choice: 5  
  
Enter account number to update details: 1001  
Enter new email address: krishshokeen55@gmail.com  
Enter new phone number: 123456790  
Contact details updated successfully.
```

For option 6;

```
===== Welcome to the Banking Application! =====  
1. Create a new account  
2. Deposit money  
3. Withdraw money  
4. View account details  
5. Update contact details  
6. Exit  
Enter your choice: 6  
Thank you for using the Banking Application. Goodbye!
```