

## 2.3-practice(java programming)

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### Code:

```
import javax.swing.*.*;

// Main class for JavaBank application
public class JavaBank {

    // Custom exception class
    public static class MyException extends Exception {
        public MyException(String message) {
            super(message);
        }
    }

    // Class to handle account creation
    public static class CreateAccount {
        public void createAccount(String accountNumber, String amountText) throws MyException {
            try {
                if (accountNumber.isEmpty()) {
                    throw new MyException("Account number cannot be empty!");
                }

                double amount = Double.parseDouble(amountText);

                // Logic to create an account using accountNumber and amount
                System.out.println("Account created successfully with account number: " + accountNumber
+ " and amount: " + amount);
            } catch (NumberFormatException e) {
                throw new MyException("Invalid amount entered!");
            } catch (Exception e) {
```

```
        throw new MyException("An unhandled error occurred while creating the account!");
    }
}
}
```

// Class to handle transactions

```
public static class MakeTransaction {

    public void makeTransaction(String accountNumber, String amountText) throws MyException {

        try {

            if (accountNumber.isEmpty()) {

                throw new MyException("Account number cannot be empty!");

            }

            double amount = Double.parseDouble(amountText);

            // Logic to perform a transaction using accountNumber and amount

            System.out.println("Transaction successful for account number: " + accountNumber + " with amount: " + amount);

        } catch (NumberFormatException e) {

            throw new MyException("Invalid amount entered!");

        } catch (Exception e) {

            throw new MyException("An unhandled error occurred while making the transaction!");

        }

    }

}
```

// Class to manage bank operations

```
public static class BankOperations {

    private CreateAccount createAccount;

    private MakeTransaction makeTransaction;

    public BankOperations() {

        createAccount = new CreateAccount();

    }

}
```

```

        makeTransaction = new MakeTransaction();
    }

    public void performCreateAccountOperation(String accountNumber, String amountText) {
        try {
            createAccount.createAccount(accountNumber, amountText);
        } catch (MyException newExc) {
            System.out.println("Error: " + newExc.getMessage());
        }
    }

    public void performMakeTransactionOperation(String accountNumber, String amountText) {
        try {
            makeTransaction.makeTransaction(accountNumber, amountText);
        } catch (MyException newExc) {
            System.out.println("Error: " + newExc.getMessage());
        }
    }
}

public static void main(String[] args) {
    BankOperations operations = new BankOperations();

    String accountNumber = "12345"; // Example account number
    String amountText = "100.00"; // Example amount

    operations.performCreateAccountOperation(accountNumber, amountText);
    operations.performMakeTransactionOperation(accountNumber, "50.00");
}
}

```

**Output:**

```
Microsoft Windows [Version 10.0.22631.3958]  
(c) Microsoft Corporation. All rights reserved.
```

```
C:\Users\e020ax\Downloads\java>javac JavaBank.java
```

```
C:\Users\e020ax\Downloads\java>java JavaBank
```

```
Account created successfully with account number: 12345 and amount: 100.0
```

```
Transaction successful for account number: 12345 with amount: 50.0
```

```
C:\Users\e020ax\Downloads\java>
```