

Java Programming

Section 2-4 practice

MyException.java

```
public class MyException extends Exception {  
    public MyException(String message) {  
        super(message);  
    }  
}
```

JavaBank.java

```
import javax.swing.*;  
import java.awt.*;  
import java.awt.event.ActionEvent;  
import java.awt.event.ActionListener;  
  
public class JavaBank extends JFrame {  
    private JTextField accountNumberField;  
    private JTextField amountField;  
    private JButton createButton;  
    private JButton transactionButton;  
  
    public JavaBank() {  
        setLayout(new FlowLayout());  
  
        accountNumberField = new JTextField(10);  
        amountField = new JTextField(10);  
        createButton = new JButton("Create Account");
```

```
transactionButton = new JButton("Make Transaction");
```

```
add(new JLabel("Account Number:"));
```

```
add(accountNumberField);
```

```
add(new JLabel("Amount:"));
```

```
add(amountField);
```

```
add(createButton);
```

```
add(transactionButton);
```

```
createButton.addActionListener(new ActionListener() {
```

```
    @Override
```

```
    public void actionPerformed(ActionEvent e) {
```

```
        try {
```

```
            createAccount();
```

```
        } catch (MyException newExc) {
```

```
            JOptionPane.showMessageDialog(null, newExc.getMessage());
```

```
        }
```

```
    }
```

```
});
```

```
transactionButton.addActionListener(new ActionListener() {
```

```
    @Override
```

```
    public void actionPerformed(ActionEvent e) {
```

```
        try {
```

```
            makeTransaction();
```

```
        } catch (MyException newExc) {
```

```
            JOptionPane.showMessageDialog(null, newExc.getMessage());
```

```
        }
```

```
    }
```

```
});  
}
```

```
public static void main(String[] args) {  
    JavaBank bank = new JavaBank();  
    bank.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
    bank.pack();  
    bank.setVisible(true);  
}  
}
```

CreateAccount.java

```
public class CreateAccount {  
    public void createAccount() throws MyException {  
        try {  
            // create account logic here  
            System.out.println("Account created successfully!");  
        } catch (Exception e) {  
            throw new MyException("An unhandled error occurred!!");  
        }  
    }  
}
```

MakeTransaction.java

```
public class MakeTransaction {  
    public void makeTransaction() throws MyException {  
        try {  
            // transaction logic here  
            System.out.println("Transaction successful!");  
        } catch (Exception e) {  
            throw new MyException("An unhandled error occurred!!");  
        }  
    }  
}
```

```
    }  
    }  
}
```

BankOperations.java

```
public class BankOperations {  
    private CreateAccount createAccount;  
    private MakeTransaction makeTransaction;  
  
    public BankOperations() {  
        createAccount = new CreateAccount();  
        makeTransaction = new MakeTransaction();  
    }  
  
    public void performCreateAccountOperation() {  
        try {  
            createAccount.createAccount();  
        } catch (MyException newExc) {  
            JOptionPane.showMessageDialog(null, newExc.getMessage());  
        }  
    }  
  
    public void performMakeTransactionOperation() {  
        try {  
            makeTransaction.makeTransaction();  
        } catch (MyException newExc) {  
            JOptionPane.showMessageDialog(null, newExc.getMessage());  
        }  
    }  
}
```