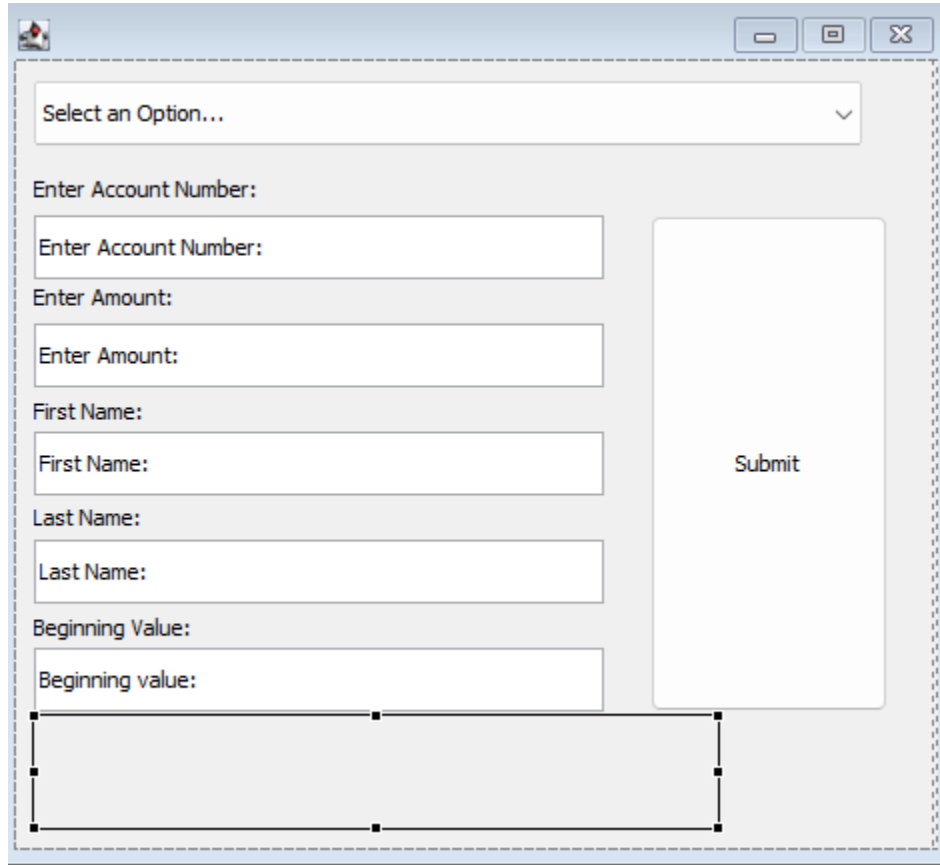
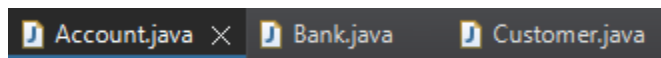


Reflection:

To start I created an application window for the bank program.



Afterwards I implemented the pre programmed code into three different objects



The rest was GUI work as well as systems in which would communicate with the objects "Bank"

```

package Masteries;

import java.awt.Color;

public class Localbank {

    private JFrame frame;
    private JTextField fName;
    private JTextField lName;
    private JTextField amt;
    private JTextField acctNum;
    private JTextField bgb;

    Bank easySave = new Bank();

    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Localbank window = new Localbank();
                    window.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }
}

```

Next was the GUI as seen below

```

private void initialize() {

    frame = new JFrame();
    frame.setBounds(100, 100, 478, 434);
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.getContentPane().setLayout(null);

    JPanel panel = new JPanel();
    panel.setBounds(0, 0, 460, 395);
    frame.getContentPane().add(panel);
    panel.setLayout(null);

    JComboBox bankActivities = new JComboBox();

    fName = new JTextField();
    fName.addMouseListener(new MouseAdapter() {
        @Override
        public void mouseClicked(MouseEvent e) {
            fName.setText(null);
        }
    });
    fName.setToolTipText("Last Name: ");
    fName.setText("First Name: ");
    fName.setBounds(10, 186, 285, 32);
    panel.add(fName);
    fName.setColumns(10);

    lName = new JTextField();
    lName.addMouseListener(new MouseAdapter() {
        @Override
        public void mouseClicked(MouseEvent e) {
            lName.setText(null);
        }
    });
    lName.setText("Last Name: ");
    lName.setBounds(10, 240, 285, 32);
    panel.add(lName);
    lName.setColumns(10);

    amt = new JTextField();
    amt.addMouseListener(new MouseAdapter() {
        @Override
        public void mouseClicked(MouseEvent e) {
            amt.setText(null);
        }
    });
}

```

```

amt.setText("Enter Amount: ");
amt.setBounds(10, 132, 285, 32);
panel.add(amt);
amt.setColumns(10);

acctNum = new JTextField();
acctNum.addMouseListener(new MouseAdapter() {
    @Override
    public void mouseClicked(MouseEvent e) {
        acctNum.setText(null);
    }
});
acctNum.setText("Enter Account Number: ");
acctNum.setBounds(10, 78, 285, 32);
panel.add(acctNum);
acctNum.setColumns(10);

JLabel acctI = new JLabel("");
acctI.setBounds(10, 328, 342, 56);
panel.add(acctI);

bgb = new JTextField();
bgb.addMouseListener(new MouseAdapter() {
    @Override
    public void mouseClicked(MouseEvent e) {
        bgb.setText(null);
    }
});
bgb.setText("Beginning value: ");
bgb.setBounds(10, 294, 285, 32);
panel.add(bgb);
bgb.setColumns(10);

```

```

bankActivities.setModel(new DefaultComboBoxModel(new String[] {"Select an Option...", "Add an Account", "Remove an Account", "Check Balance", "Withdrawal", "Deposit"}));
bankActivities.setBounds(10, 11, 414, 32);
panel.add(bankActivities);

JLabel lbl1 = new JLabel("Enter Account Number:");
lbl1.setBounds(10, 54, 119, 23);
panel.add(lbl1);

JLabel lbl2 = new JLabel("Enter Amount:");
lbl2.setBounds(10, 108, 95, 23);
panel.add(lbl2);

JLabel lbl3 = new JLabel("First Name:");
lbl3.setBounds(10, 165, 95, 23);
panel.add(lbl3);

JLabel lbl4 = new JLabel("Last Name:");
lbl4.setBounds(10, 218, 95, 23);
panel.add(lbl4);

JLabel lbl5 = new JLabel("Beginning Value:");
lbl5.setBounds(10, 273, 95, 23);
panel.add(lbl5);

bankActivities.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

```

Here is the coloring system

```

bankActivities.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        if (bankActivities.getSelectedItem().equals("Add an Account")) {
            lbl1.setForeground(Color.black);
            lbl2.setForeground(Color.black);
            lbl3.setForeground(Color.red);
            lbl4.setForeground(Color.red);
            lbl5.setForeground(Color.red);
        }
        else if (bankActivities.getSelectedItem().equals("Remove an Account")) {
            lbl1.setForeground(Color.red);
            lbl2.setForeground(Color.black);
            lbl3.setForeground(Color.black);
            lbl4.setForeground(Color.black);
            lbl5.setForeground(Color.black);
        }
        else if (bankActivities.getSelectedItem().equals("Check Balance")) {
            lbl1.setForeground(Color.red);
            lbl2.setForeground(Color.black);
            lbl3.setForeground(Color.black);
            lbl4.setForeground(Color.black);
            lbl5.setForeground(Color.black);
        }
        else if (bankActivities.getSelectedItem().equals("Withdrawal")) {
            lbl1.setForeground(Color.red);
            lbl2.setForeground(Color.red);
            lbl3.setForeground(Color.black);
            lbl4.setForeground(Color.black);
            lbl5.setForeground(Color.black);
        }
        else if (bankActivities.getSelectedItem().equals("Deposit")) {
            lbl1.setForeground(Color.red);
            lbl2.setForeground(Color.red);
            lbl3.setForeground(Color.black);
            lbl4.setForeground(Color.black);
            lbl5.setForeground(Color.black);
        }
    }
});

```

And finally the brains behind the operation

```

JButton sBt = new JButton("Submit");
sBt.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {


        String amount, message;

        if (bankActivities.getSelectedItem().equals("Deposit")) {
            amount = amt.getText();
            message = easySave.transaction(1, acctNum.getText(), Double.parseDouble(amount));
            acctI.setText(message);
        }
        else if(bankActivities.getSelectedItem().equals("Withdrawal")) {
            amount = amt.getText();
            message = easySave.transaction(2, acctNum.getText(), Double.parseDouble(amount));
            acctI.setText(message);
        }
        else if(bankActivities.getSelectedItem().equals("Check Balance")) {
            message = easySave.checkBalance(acctNum.getText());
            acctI.setText(message);
        }
        else if(bankActivities.getSelectedItem().equals("Remove an Account")) {
            amount = bgb.getText();
            message = easySave.deleteAccount(acctNum.getText());
            acctI.setText("Deleted Account ID: " + acctNum.getText());
        }
        else if(bankActivities.getSelectedItem().equals("Add an Account")) {
            amount = bgb.getText();
            message = easySave.addAccount(Double.parseDouble(amount), fName.getText(), lName.getText());
            acctI.setText("New Account ID: " + message);
        }

        acctNum.setText("");
        amt.setText("");
        fName.setText("");
        lName.setText("");
        bgb.setText("");
    }
});
sBt.setBounds(318, 78, 119, 248);
panel.add(sBt);

```

The final result:

 — □ ×

Select an Option... ▼

Enter Account ID:

Enter Account ID:

Enter Amount:

Enter Amount:

First Name:

First Name:


Last Name:

Last Name:

Beginning Value:

Beginning value:

Submit

 — □ ×

Add an Account

▼

Enter Account ID:

Enter Account ID:

Enter Amount:

Enter Amount:

First Name:

Grayson


Last Name:

Ardron

Beginning Value:

250

Submit

— □ ×

Add an Account ▾

Enter Account ID:

Enter Amount:

First Name:

Last Name:

Beginning Value:

Submit

New Account ID: GArdron



Check Balance



Enter Account ID:

Enter Amount:

First Name:

Last Name:

Beginning Value:

Submit

GArdron : Grayson Ardron's Current balance is: \$250.00