

Atharva.apxc

```
public class Atharva {  
    public Decimal num1 { get; set; }  
    public Decimal num2 { get; set; }  
    public Decimal result { get; set; }  
    public String operation { get; set; }  
    public List<SelectOption> operations { get; set; }  
  
    // Constructor  
    public Atharva() {  
        num1 = 0;  
        num2 = 0;  
        result = 0;  
        operation = "";  
        operations = new List<SelectOption>();  
        operations.add(new SelectOption("", 'Select Operation'));  
        operations.add(new SelectOption('add', 'Addition'));  
        operations.add(new SelectOption('subtract', 'Subtraction'));  
        operations.add(new SelectOption('multiply', 'Multiplication'));  
        operations.add(new SelectOption('divide', 'Division'));  
    }  
  
    // Method to calculate based on selected operation  
    public void calculate() {  
        if (operation == 'add') {  
            result = num1 + num2;  
        } else if (operation == 'subtract') {  
            result = num1 - num2;  
        } else if (operation == 'multiply') {  
            result = num1 * num2;  
        } else if (operation == 'divide' && num2 != 0) {  
            result = num1 / num2;  
        } else {  
            result = null;  
        }  
    }  
}  
  
// Method to clear inputs
```

```

public void clear() {
    num1 = 0;
    num2 = 0;
    result = 0;
    operation = "";
}
}

```

Atharva.vfp

```

<apex:page controller="Atharva">
    <apex:form id="calculatorForm">
        <apex:pageBlock title="Simple Calculator" id="calcPageBlock">
            <apex:pageBlockSection columns="2">
                <apex:inputText label="Number 1" value="{!num1}" required="true"/>
                <apex:inputText label="Number 2" value="{!num2}" required="true"/>
                <apex:selectList value="{!operation}" label="Operation" size="1">
                    <apex:selectOptions value="{!operations}"/>
                </apex:selectList>
                <apex:commandButton action="{!calculate}" value="Calculate"
rerender="resultBlock"/>
                <apex:commandButton action="{!clear}" value="Clear"
rerender="resultBlock"/>
            </apex:pageBlockSection>

            <apex:pageBlockSection title="Result" id="resultBlock">
                <apex:outputText value="Result:  {!result}"
rendered="{!NOT(ISNULL(result))}"/>
                <apex:outputText value="Error: Cannot divide by zero"
rendered="{!ISNULL(result) && operation == 'divide' && num2 == 0}"/>
            </apex:pageBlockSection>
        </apex:pageBlock>
    </apex:form>
</apex:page>

```

The first screenshot shows the Apex class `Atharva` in the Developer Console. The class has four public attributes: `num1`, `num2`, `result`, and `operation`, all of type `Decimal` or `String`. It also has a `operations` attribute of type `List<SelectOption>`. The constructor `Atharva()` initializes these attributes: `num1` and `num2` to 0, `result` to 0, `operation` to an empty string, and `operations` to a list containing five `SelectOption` objects: 'Select Operation', 'add', 'Subtraction', 'multiply', and 'divide'.

The second screenshot shows the Visualforce page `atharva.vfp` in the Developer Console. The page uses the `Atharva` controller. It contains a form with two input fields for numbers, a select list for the operation, and two buttons: 'Calculate' and 'Clear'. The 'Calculate' button triggers the `calculate` action, which updates the `result` attribute. The 'Clear' button triggers the `clear` action, which resets the `result` attribute. The page also displays the result of the calculation and an error message for division by zero.

```

1 public class Atharva {
2     public Decimal num1 { get; set; }
3     public Decimal num2 { get; set; }
4     public Decimal result { get; set; }
5     public String operation { get; set; }
6     public List<SelectOption> operations { get; set; }
7
8     // Constructor
9     public Atharva() {
10         num1 = 0;
11         num2 = 0;
12         result = 0;
13         operation = '';
14         operations = new List<SelectOption>();
15         operations.add(new SelectOption('', 'Select Operation'));
16         operations.add(new SelectOption('add', 'Addition'));
17         operations.add(new SelectOption('subtract', 'Subtraction'));
18         operations.add(new SelectOption('multiply', 'Multiplication'));
19         operations.add(new SelectOption('divide', 'Division'));
20     }
21 }

```

```

1 <apex:page controller="Atharva">
2     <apex:form id="calculatorForm">
3         <apex:pageBlock title="Simple Calculator" id="calcPageBlock">
4             <apex:pageBlockSection columns="2">
5                 <apex:inputText label="Number 1" value="{!num1}" required="true"/>
6                 <apex:inputText label="Number 2" value="{!num2}" required="true"/>
7                 <apex:selectList value="{!operation}" label="Operation" size="1">
8                     <apex:selectOptions value="{!operations}"/>
9                 </apex:selectList>
10                <apex:commandButton action="{!calculate}" value="Calculate" rerender="resultBlock"/>
11                <apex:commandButton action="{!clear}" value="Clear" rerender="resultBlock"/>
12            </apex:pageBlockSection>
13
14            <apex:pageBlockSection title="Result" id="resultBlock">
15                <apex:outputText value="Result: {!result}" rendered="{!NOT(ISNULL(result))}"/>
16                <apex:outputText value="Error: Cannot divide by zero" rendered="{!ISNULL(result) && operation == 'divide'}"/>
17            </apex:pageBlockSection>
18        </apex:pageBlock>
19    </apex:form>
20 </apex:page>

```

