```
public class MatrixOperations {
    public Integer rows { get; set; }
    public Integer cols { get; set; }
    public List<List<Integer>> matrix1 { get; set; }
    public List<List<Integer>> matrix2 { get; set; }
    public List<List<Integer>> resultMatrix { get; set; }

    // Constructor to initialize matrices based on rows and columns
    public MatrixOperations() {
        matrix1 = new List<List<Integer>>();
        matrix2 = new List<List<Integer>>();
        resultMatrix = new List<List<Integer>>();
    }

    // Method to perform matrix addition
    public void addMatrices() {
        if (matrix1.size() != matrix2.size() || matrix1[0].size() != matrix2[0].size()) {
            resultMatrix = new List<List<Integer>>{new List<Integer>{0}};
            return;
        }

        resultMatrix = new List<List<Integer>>();
        for (Integer i = 0; i < rows; i++) {
            List<Integer> row = new List<Integer>();
            for (Integer j = 0; j < cols; j++) {
                row.add(matrix1[i][j] + matrix2[i][j]);
            }
            resultMatrix.add(row);
        }
    }
}
```

```
<apex:page controller="MatrixOperations">
  <h2>Matrix Addition</h2>
  <apex:form>
    <apex:pageBlock title="Enter Matrix Dimensions">
      <apex:pageBlockSection>
        <apex:inputText value="{!rows}" label="Number of Rows"/>
        <apex:inputText value="{!cols}" label="Number of Columns"/>
        <apex:commandButton value="Create Matrices" action="{!createMatrices}"
rerender="matrixInputs"/>
      </apex:pageBlockSection>
    </apex:pageBlock>

    <apex:pageBlock id="matrixInputs" title="Enter Matrix Values"
rendered="{!NOT(ISNULL(rows))}">
      <apex:pageBlockSection>
        <h3>Matrix 1</h3>
        <apex:repeat value="{!matrix1}" var="row">
          <apex:repeat value="{!row}" var="element">
            <apex:inputText value="{!element}" label="Element"/>
          </apex:repeat>
        </apex:repeat>
        <h3>Matrix 2</h3>
        <apex:repeat value="{!matrix2}" var="row">
          <apex:repeat value="{!row}" var="element">
            <apex:inputText value="{!element}" label="Element"/>
          </apex:repeat>
        </apex:repeat>
      </apex:pageBlockSection>

      <apex:pageBlockSection>
        <apex:commandButton value="Add Matrices" action="{!addMatrices}"
rerender="resultPanel"/>
      </apex:pageBlockSection>
    </apex:pageBlock>

    <apex:outputPanel id="resultPanel">
      <apex:pageBlock title="Matrix Addition Result"
rendered="{!NOT(ISNULL(resultMatrix))}">
        <apex:pageBlockSection>
          <h3>Result Matrix</h3>
          <apex:repeat value="{!resultMatrix}" var="row">
```

```
                <apex:repeat value="{!row}" var="element">
                  <apex:outputText value="{!element}" style="margin-right: 5px;"/>
                </apex:repeat>
                <br/>
              </apex:repeat>
            </apex:pageBlockSection>
          </apex:pageBlock>
        </apex:outputPanel>
    </apex:form>
</apex:page>
```

```
// Initialize the MatrixOperations class
MatrixOperations matrixOps = new MatrixOperations();

// Set rows and columns for the matrices
matrixOps.rows = 3;
matrixOps.cols = 3;

// Define matrix1 (3x3 matrix)
matrixOps.matrix1 = new List<List<Integer>>{
  new List<Integer>{1, 2, 3},
  new List<Integer>{4, 5, 6},
  new List<Integer>{7, 8, 9}
};

// Define matrix2 (3x3 matrix)
matrixOps.matrix2 = new List<List<Integer>>{
  new List<Integer>{9, 8, 7},
  new List<Integer>{6, 5, 4},
  new List<Integer>{3, 2, 1}
};

// Perform matrix addition
matrixOps.addMatrices();

// Output the result matrix to the debug log
System.debug('Resulting Matrix after Addition:');
for (List<Integer> row : matrixOps.resultMatrix) {
  System.debug(row);
}
```