Write an extension of homework 1 to include the following:

1. The history is a component of the calculator which is implemented using `nhUtilities.containers.List` and `nhUtilities.containers.DefaultList`.

You first design the History class (data and functionality). This class should be specified as **generic**; it contains several features to include its size, add a history entry, remove last history entry, get last history entry, isEmpty, etc.

2. The calculator uses the history class above, and provide a further operation to the user:
   Display history.

The display of history is presented as a list of operations under the following heading:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Left Operand</th>
<th>Right Operand</th>
</tr>
</thead>
</table>

**Example:** If the history contains the following two entries: an addition of 5 to 7, followed by an invert of 12. It is display as follows:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Left Operand</th>
<th>Right Operand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Invert</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

If the history is empty, an appropriate message should be display instead of an empty history list.

**What to submit**

- The source code of the History class
- The testing class of the History class.
- A script of an execution of the Calculator with several execution of the display of the history of operations.

**Cases to consider for the script:**

- An empty history
- A history with 1 element.
- A history with two elements.
- A history with 3 elements.
- A history with many elements.
- A history with one entry removed.
- A history with another entry removed.
- A history with many entries, after which undo was carried out that emptied the history, with a history display after that.

**Due date:** Wednesday Feb 16, at class time.

**Grading:**

- For a grade of 75 points submit the history class with its testing class.
- For a full grade submit all of the above requested.