**CST8130 – Data Structures**

**Test Plan < Lab #1>**

**Prepared By - <Mateusz Gumienny>**

<add more tables if you have more features to test. Add more rows if you have more test cases> Cover all possible test cases with sufficient detail.

**Feature: Menu Processing**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Program runs |  | Please select the following.  1: Initialize a default array.  2: To specify the max size of the array.  3: Add value to the array.  4: Display values in the array.  5: Display average of the values, minimum value, maximum value, max mod min, and factorial of max value.  6: To Exit. | Please select the following.  1: Initialize a default array.  2: To specify the max size of the array.  3: Add value to the array.  4: Display values in the array.  5: Display average of the values, minimum value, maximum value, max mod min, and factorial of max value.  6: To Exit. | Pass |
| T2 | Initialize a default array | 1 | > 1 | > 1 | Pass |
| T3 | Specify max size of the array to 3 | 2, 3 | > 2  Enter new size of array:3 | > 2  Enter new size of array:3 | Pass |
| T4 | Add a value of 1 to the array | 3, 1  (Done 3 times to add values 1,2 & 3) | > 3  Enter a value: 1 | > 3  Enter a value: 1 | Pass |
| T5 | Display the values of the array | 4 | > 4  Numbers are:  1.0  2.0  3.0 | > 4  Numbers are:  1.0  2.0  3.0 | Pass |
|  |  |  |  |  |  |
| T6 | Calculate then display average of the values, maximum value, minimum value and factorial of max | 5 | > 5  Average is: 2.0, Maximum value: 3.0, Minimum value: 1.0, max mod min is 0, Factorial of 3.0 is: 6.0 | > 5  Average is: 2.0, Maximum value: 3.0, Minimum value: 1.0, max mod min is 0, Factorial of 3.0 is: 6.0 | Pass |
| T7 | Exit program | 6 | > 6  Exiting... | > 6  Exiting... | Pass |

**Feature: <Program Test Run>**

|  |  |  |  |  |  |
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