Hla Myint Myat185923216 hmyat1@mySeneca.ca  
Click or tap here to enter text.

**See the topic's slides, the activity instructions, and the Programming Test Cases.docx**

The number of rows in the tables below are for convenience; they do not indicate the number of cases expected.

**Test Cases for the Black box program**

| **Description** | **+ / − Purpose** | **Data Input** | **Expected Output** | **Actual output if unexpected** | **Success?** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **String:3211321** |  |  |  |  |
| Nominal test | + | Position:1 | 3 | 1 | Fail | 1  is '1' |
| Nominal test | + | Position:2 | 2 | 1 | Fail | 2  is '1' |
| Nominal test | + | Position:3 | 1 | 3 | Fail | 3  is '3' |
| Nominal test | + | Position:4 | 1 | 2 | Fail | 4  is '2' |
| Nominal test | + | Position:3 | 3 | 1 | Fail | 5  is '1' |
|  | + | **String:9876543** |  |  |  |  |
| Nominal test | + | Position:1 | 9 | 7 | Fail | 1  is '7' |
| Nominal test | + | Position:2 | 8 | 6 | Fail | 2  is '6' |
| Nominal test | + | Position:3 | 7 | 5 | Fail | 3  is '5' |
| Nominal test | + | Position:4 | 6 | 4 | Fail | 4  is '4' |
| Nominal test | + | Position:5 | 5 | 3 | Fail | 5  is '3' |
|  | + | **String: aaaaaaaa** |  |  |  |  |
| Nominal test | + | Position:1 | a |  | **Success** | **1**  **is 'a'** |
| Nominal test | + | Position:2 | a |  | **Success** | 2  is 'a' |
| Nominal test | + | Position:3 | a |  | **Success** | 3  is 'a' |
| Nominal test | + | Position:4 | a |  | **Success** | 4  is 'a' |
| Nominal test | + | Position:5 | a |  | **Success** | 5  is 'a' |

**Test Cases for the White box program.**

| **Description** | **+ / − Purpose** | **Data Inputs for X and O** | **Expected Output** | | **Actual output if unexpected** | **Success?** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Start program | Record initial condition | n/a | 1 2 3  4 5 6  7 8 9 |  |  |  | To copy a grid from terminal, hold [Alt] while click & drag to select. |
| Nominal test | + | X > 1 O > 2 | **X** 2 3  4 5 6  7 8 9 | X **O** 3  4 5 6  7 8 9 |  | Success | X O 3  4 5 6  7 8 9 |
| Nominal test | + | X > 3 O > 4 | X O X  4 5 6  7 8 9 | X O X  O 5 6  7 8 9 |  | Success | X O X  O 5 6  7 8 9 |
| Nominal test | \_ | X > 11 O > 12 | 1 2 3  4 5 6  7 8 9 | 1 2 3  4 5 6  7 8 9 |  | Success | 1 2 3  4 5 6  7 8 9 |
| Nominal test | + | X > 3 O > 5 | 1 2 X  4 5 6  7 8 9 | 1 2 X  4 O 6  7 8 9 |  | Success | 1 2 X  4 O 6  7 8 9 |
| Nominal test | + | X > 4 O > 6 | 1 2 X  X O 6  7 8 9 | 1 2 X  X O O  7 8 9 |  | Success | 1 2 X  X O O  7 8 9 |
| Nominal test | - | X > 0 O > 10 | 1 2 X  X O O  7 8 9 | 1 2 X  X O O  7 8 9 |  | Success | Instead of 10, use grid position 1 - 9  1 2 X  X O O  7 8 9 |
| Nominal test | + | X > 1 O > 9 | X 2 X  X O O  7 8 9 | X 2 X  X O O  7 8 O |  | Success | X 2 X  X O O  7 8 O |
| Nominal test | + | X > 2 O > 8 | 1 X 3  4 5 6  7 8 9 | 1 X 3  4 5 6  7 O 9 |  | Success | 1 X 3  4 5 6  7 O 9 |
| Nominal test | - | X > 15 O > 14 | 1 X 3  4 5 6  7 O 9 | 1 X 3  4 5 6  7 O 9 |  | Success | Instead of 14, use grid position 1 - 9  1 X 3  4 5 6  7 O 9 |
| Nominal test | - | X > 22 O > 44 | 1 X 3  4 5 6  7 O 9 | 1 X 3  4 5 6  7 O 9 |  | Success | Instead of 44, use grid position 1 - 9  1 X 3  4 5 6  7 O 9 |