Mohdeep Singh109600239 msingh820@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** |
| --- | --- | --- | --- | --- | --- | --- |
| **Inputting the string** | **+** | **String:**  **My name is mohdeep. How are you. nice to meet you. i am very happy** | **Prompt “Enter the character position to extract or zero to end.”** | **Prompt “Enter the character position to extract or zero to end. “No output** | **--** | **--** |
| Testing to see if it can tell the position entered is longer than the string entered. | - | Position: 40 | ‘o‘ | Is ‘ ’ i.e space | NO | Didn’t get the expected output. After 39 position. It didn’t stored |
| Edge case - Minimum position | - | Position: 0 | ‘M’ | ‘y’ | No | Didn’t get the expected output. |
| Edge case – Maximum  position | - | Position: 38 | ‘o’ | ‘o’ | Yes | Get the right position as I expected |
| Testing with a negative no. | - | Position: -1 | ‘M’ | ‘M’ | Yes | Get the right position as I expected |
| Negative case - Unexpected input type | - | Position: -one | ‘M’ | ‘y’ | No | Expected ‘M’ because I inputed -one which is -1. |
| **Inputting the numbers** | **-** | **String: abcdefghijkl** | **-** | **-** | **-** | **-** |
| Checking if it can give the given input location | - | Position: -1 | ‘a’ | ‘a’ | Yes | Get the right position as I expected |
| Edge case – Maximum  position | - | Position: 10 | ‘l’ | ‘l’ | Yes | Get the right position as I expected |
| Over case – Maximum  position | - | Position: 11 | ‘ ‘ | ‘ ‘ | Yes | Get the right position as I expected |
| Inputing character in position | - | Position: ten | ‘l’ | ‘b’ | No | Expected ‘l’ because I inputed ten which is 10. |
| Inputing character in position | - | Position: -one | ‘a’ | ‘b’ | No | Expected ‘a’ because I inputed ten which is -1. |
| **Inputing the string** | **-** | **String: Hello, this is a test case of extract function.** | **-** | **-** | **-** | **-** |
| Checking if it can give the given input location |  | Position: 18 | ‘e’ | ‘s’ | No | Didn’t get the right value |
| Checking if it can give the given input location |  | Position: -00 | ‘ ‘ | ‘e’ | No | Expected ‘ ’ because I thought its out of scope. |
| Maximum location check |  | Position: 999 | ‘ ‘ | ‘ ‘ | Yes | Get the right position as I expected |
| Minimum. First location check |  | Position: -1 | ‘H’ | ‘H’ | Yes | Get the right position as I expected |
| overflow |  | Position: 123456789 | ‘ ‘ | terminated | No | Expected ‘ ‘, but it got terminated |

**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 | + check recording of alternating moves to open grid positions | X > 1 O > 2 | **X** 2 3  4 5 6  7 8 9 | X **O** 3  4 5 6  7 8 9 | - | - | - |
| Inputing player x three times together | To check if it fill the three spaces for X | X > 1 5 9 O > | X 2 3  4 X 6  7 8 X | X 2 3  4 O 6  7 8 X | - | NO | I thought if I put three number of X, it will take three spaces, but it didn’t happened. |
| Entering O and X after winning the game | To check if it will be reset or not | X > 1 2 3 O > 4 5 6 | X O X  X X O  X O X | X O X  X X O  X O X | X is COLUMN 1-4-7 WINNER!  O is COLUMN 2-5-8 WINNER! | No | I thought it will reset.  But it didn’t. it giving me the result of winning again and again . |
| Entering other than grid number | To check if it fill the three spaces for X and O | X > 97897 O > 897897 | No input taken | No input taken | X : Instead of 97897, use grid position 1 – 9  O: Instead of 97897, use grid position 1 - 9 | No | Didn’t allow me to enter any other number other than grid |
| To check what will happen if I entered negative number | To check if it fill the three spaces for X and O | X > -4  O > -9 | No input taken | No input taken | X : Instead of -4, use grid position 1 – 9  O: Instead of -9, use grid position 1 - 9 | No | Didn’t allow me to enter any other number other than grid |
| To check what will happen if I entered characters | To check if it fill the three spaces for X and O | X > a  O > b | No input taken | No input taken | X : Please enter a numeric value between 1 and 9.  O: Please enter a numeric value between 1 and 9. | No | Didn’t allow me to enter any other number other than grid. Only entered numeric values |