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| --- | --- | --- | --- | --- | --- | --- |
| **Program or module:** | **fundamentals** | **Save As fundamentals\_test\_cases.xlsx** | | | | |
| **Version 1** | | | | | **Run by: Date:** | ***Prince 31-07-2023*** |
| **Description** | **+ / − Purpose** | **Data Input** | **Expected result** | **Actual result if unexpected** | **Result** | **Comments** |
| nominal check: starting range | + to check output with correct input in starting range | string : 123456789 character position : 0 | 1 |  | PASS | program works properly, the value at position 1 is 2. |
| nominal check: mid-range | + to check output with correct input from mid-range | string : 123456789 character position : 5 | 6 |  | PASS | program works properly, the value at position 5 is 6. |
| nominal check: end range | + to check output with correct input in starting range | string : 0123456789 character position : 9 | 9 |  | PASS | program works properly, the value at position 9 is 9. |
| nominal check: repeating starting range test | + to check output with correct input in starting range | string : abcdefghij character position: 3 | d |  | PASS | program works properly, the value at position 3 is d. |
| nominal check: repeating mid range test | ' + to check output with correct input in mid- range | string : 012345678901234567890123456789 character position: 18 | 8 |  | PASS | program works properly, the value at position 7 is h. |
| nominal check: repeating mid range test | "+ to check output with correct input in mid- range | string : abcdefghijklmnopqrstuvwxyz character position: 25 | z |  | PASS | program works properly, the value at position 7 is h. |
| error check: out of range check | "- check output with input above the range | string: 34567 character position: 5 | error - input is out of range | Too big... Position reduced to max. available The character found at position 4 is '7' | PASS | program works with input above range, the error is displayed if input is out of error and last character is displayed. |
| error check: out of range check | "- check output with negative input. | string: 23456 character position: -2 | error - input is not valid. | Too big... Position reduced to max. available The character found at position 4 is '6' | FAIL | Program fails, as the error should come up with message that input is not valid as position cannot be negative. Iteration needs to be done separately for different types of wrong inputs. |
| error check: out of range check | "- check output with negative input. | string: theGAME character position: k | error - input is not valid. | The character found at position 0 is 't' | FAIL | Program fails, as the error should come up with message that input is not valid as position value is not valid. It cannot be a character. Iteration needs to be done separately for different types of wrong inputs. |

**INPUT/OUTPUT:**

\*\*\* start of Indexing Strings Demo \*\*\*

Type not empty string (q to quit):

123456789

Type the character position within the string:

0

The character found at position 0 is '1'

Type not empty string (q to quit):

123456789

Type the character position within the string:

5

The character found at position 5 is '6'

Type not empty string (q to quit):

0123456789

Type the character position within the string:

9

The character found at position 9 is '9'

Type not empty string (q to quit):

abcdefghij

Type the character position within the string:

3

The character found at position 3 is 'd'

Type not empty string (q to quit):

012345678901234567890123456789

Type the character position within the string:

18

The character found at position 18 is '8'

Type not empty string (q to quit):

abcdefghijklmnopqrstuvwxyz

Type the character position within the string:

25

The character found at position 25 is 'z'

Type not empty string (q to quit):

34567

Type the character position within the string:

5

Too big... Position reduced to max. available

The character found at position 4 is '7'

Type not empty string (q to quit):

23456

Type the character position within the string:

-2

Too big... Position reduced to max. available

The character found at position 4 is '6'

Type not empty string (q to quit):

theGAME

Type the character position within the string:

k

The character found at position 0 is 't'

\*\*\* End of Fundamentals Strings to int Demo \*\*\*