**Assignment 6**

1. What are escape characters, and how do you use them?

Escape characters are special characters in a string that have a specific meaning and are used to represent certain characters or perform specific functions that cannot be directly represented in the string itself. Escape characters are denoted by a backslash (\) followed by a specific character or sequence.

Here are some commonly used escape characters in Python:

* \n: Represents a newline character. It is used to insert a line break in a string.
* \t: Represents a tab character. It is used to insert a horizontal tab in a string.
* \': Represents a single quote character. It is used to include a single quote within a string defined with single quotes.
* \": Represents a double quote character. It is used to include a double quote within a string defined with double quotes.
* \\: Represents a backslash character. It is used to include a backslash within a string.

1. What do the escape characters n and t stand for?

The escape characters \n and \t have specific meanings in Python:

\n: The escape character \n represents a newline. It is used to insert a line break in a string. When encountered in a string, it moves the cursor to the beginning of the next line.

\t: The escape character \t represents a horizontal tab. It is used to insert horizontal spacing or indentation in a string. When encountered in a string, it adds a tab character, which typically moves the cursor to the next tab stop or a predefined number of spaces.

1. What is the way to include backslash characters in a string?

To include a backslash character (\) in a string, you can use the escape character itself, which is a backslash.

1. The string "Howl's Moving Castle" is a correct value. Why isn't the single quote character in the word Howl's not escaped a problem?

In this case, the string is defined using single quotes, and the single quote character within the word "Howl's" is not causing any problem. Python understands that the single quote within the string is part of the string itself and not the closing delimiter.

1. How do you write a string of newlines if you don’t want to use the n character?

If you don't want to use the \n escape character to represent newlines in a string, you have a few alternative options:

* Use triple quotes (""") to create a multiline string
* Use the newline character's ASCII value: You can use the \u escape sequence followed by the ASCII value of the newline character (10) to represent a newline.

1. What are the values of the given expressions?

‘Hello, world!’[1]- the value of this expression is 'e'.

‘Hello, world!’[0:5]- the value of this expression is 'Hello'

‘Hello, world!’[:5]- the value of this expression is 'Hello'

‘Hello, world!’[3:]- the value of this expression is 'lo, world!'

1. What are the values of the following expressions?

‘Hello’.upper()-the value of this expression is 'HELLO'.

‘Hello’.upper().isupper()-the value returned by isupper() is True.

‘Hello’.upper().lower()-the value of this expression is 'hello'

1. What are the values of the following expressions?

‘Remember, remember, the fifth of July.’.split()-the value of this expression is ['Remember,', 'remember,', 'the', 'fifth', 'of', 'July.'].

‘-‘.join(‘There can only one.’.split())-the value of this expression is 'There-can-only-one.'

1. What are the methods for right-justifying, left-justifying, and centering a string?

Right-justifying a string: The rjust()

Left-justifying a string: The ljust()

Centering a string: The center()

1. What is the best way to remove whitespace characters from the start or end?

To remove whitespace characters from the start or end of a string in Python, you can use the strip() method. The strip() method removes leading (at the start) and trailing (at the end) whitespace characters from a string.