STRINGS

Slicing

Initialize string

```
1  test_string = "Harry Potter"
```

Get the first 5 characters

```
1   test_string[0:5]
2  'Harry'
```

get the whole string

```
1  test_string[0:]
2  'Harry Potter'
```

negative indexing starts from -1 which points to last element

```
1  test_string[-1]
2  'r'
```

Combine positive and negative index

```
1  s[0:-7]
2  'Harry'
```

skip elements print only alternates

```
1  test_string[0::2]
2  'HryPte'
```

Negative steps

```
1  test_string[-1::-2]
2  'rto ra'
```

Print in reverse

```
1  test_string[-1::-1]
2  'rettoP yrraH'
```

String Functions

- len -> finds length of a string

```
1  test_string = "Hogwarts school of wizardry"
2  len(test_string)
3  27
```

- upper() -> capitalizes all characters in a string

```
1  test_string.upper()
2  'HOGWARTS SCHOOL OF WIZARDRY'
```

- lower() -> turns all characters to lower case

```
1  test_string.lower()
2  'hogwarts school of wizardry'
```

- count() -> counts the number of occurences of a substring within a string

```
1  test_string
2  'Hogwarts school of wizardry'
3
4  test_string.count('o')
5  4
6
7  test_string.count('of')
8  1
```

- find -> finds the index of the first occurence of a substring within a string

```
1  test_string
2  'Hogwarts school of wizardry'
3
4  test_string.find('of')
5  16
6
7  #returns -1 if substringt is not found
8  test_string.find('Witchcrafts')
9  -1
```

- replace -> replaces old substring with new-> syntax->object.replace(old,new)

```
1  test_string
2  'Hogwarts school of wizardry'
3
4  test_string.replace('wizardry','witchcrafts and wizardry')
5  'Hogwarts school of witchcrafts and wizardry'
```

String Formatting

To format a string the variables can be replaced with placeholders.

Example of a greeting message where we can change who we are greeting and the actual greeting mesage.

```
1   formatted_greeting = "Hey {} ! Wish you a {}".format(name,greeting)
2   name = 'Ron'
3   greeting = 'good evening'
4
5   formatted_greeting
6   'Hey Ron ! Wish you a good evening'
7
8   greeting = "swell Sunday"
9   name = "Harry"
10
11  formatted_greeting = "Hey {} ! Wish you a {}".format(name,greeting)
12  formatted_greeting
13  'Hey Harry ! Wish you a swell Sunday'
```