Python assignment 2

1. Assign the string "Hello, World!" to a variable 'greeting'. Use the '.lower()' method to convert it to lowercase and print the result.

```
In [21]: greeting = "Hello, World!"
    ...: lowercase = greeting.lower()
    ...: print("Lowercase greeting:", lowercase)
Lowercase greeting: hello, world!
```

2. Given the string "python programming", use the '.capitalize()' method to capitalize the first letter of the string and print the result.

```
In [22]: s= "python programming"
    ...: capitalized_string = s.capitalize()
    ...: print("Capitalized string:", capitalized_string)
Capitalized string: Python programming
```

3. Create a string variable 'text' with the value " Learn Python! ". Use the '.strip()' method to remove the leading and trailing whitespace and print the result.

```
In [23]: text = " Learn Python! "
    ...: stripped_text = text.strip()
    ...: print("Stripped text:", stripped_text)
Stripped text: Learn Python!
```

4. Given the string "AIandML", use the '.find()' method to find the index of the substring "AI" and print the result.

```
In [24]: ais = "AIandML"
    ...: indexai = ais.find("AI")
    ...: print("Index of 'AI':", indexai)
Index of 'AI': 0
```

5. Assign the string "Python is fun" to a variable 'phrase'. Use the '.replace()' method to replace "fun" with "awesome" and print the result.

```
In [25]: phrase = "Python is fun"
    ...: rphrase = phrase.replace("fun", "awesome")
    ...: print("Replaced phrase:", rphrase)
Replaced phrase: Python is awesome
```

6. Given the string "Hello, World!", use the '.split()' method to split the string into a list of words and print the result.

```
In [26]: string = "Hello, World!"
    ...: splithello = string.split()
    ...: print("Split string:", splithello)
Split string: ['Hello,', 'World!']
```

7. Create a string variable sentence with the value "this is a test". Use the '.title()' method to convert it to title case and print the result.

```
In [27]: sentence = "this is a test"
    ...: title_sentence = sentence.title()
    ...: print("Title case sentence:", title_sentence)
Title case sentence: This Is A Test
```

8. Assign the string "apple,banana,cherry" to a variable 'fruits'. Use the '.split()' method with a comma as the separator to split the string into a list and print the result.

```
In [28]: fruits = "apple,banana,cherry"
    ...: split_fruits = fruits.split(',')
    ...: print("Split fruits:", split_fruits)
Split fruits: ['apple', 'banana', 'cherry']
```

9. Given the string "Python", use the '.center()' method to center it within a width of 20 characters, padding with the character '*', and print the result.

```
In [29]: pstring = "Python"
    ...: centerstring = pstring.center(20, '*')
    ...: print("Centered string", centerstring)
Centered string *******Python*******
```

10. Create a string variable 'quote' with the value "To be or not to be". Use the '.count()' method to count the occurrences of the substring "be" and print the result.

```
In [30]: quote = "To be or not to be"
    ...: count_be = quote.count("be")
    ...: print("Occurrences of 'be':", count_be)
Occurrences of 'be': 2
```