Programming with Python

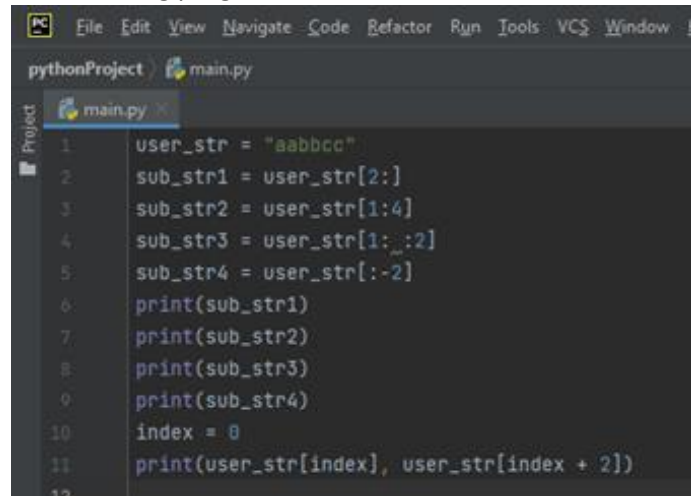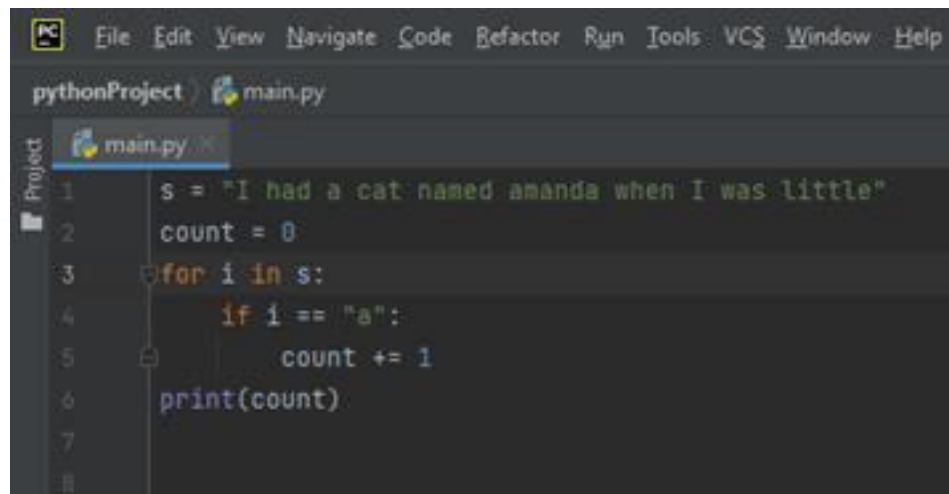# LAB 7: STRING

Part A: String

Slicing Check

1. Find the output for the following program.

```python
user_str = "aabbcc"
sub_str1 = user_str[2:]
sub_str2 = user_str[1:4]
sub_str3 = user_str[1:_:2]
sub_str4 = user_str[:-2]
print(sub_str1)
print(sub_str2)
print(sub_str3)
print(sub_str4)
index = 0
print(user_str[index], user_str[index + 2])
```

Comparison Check

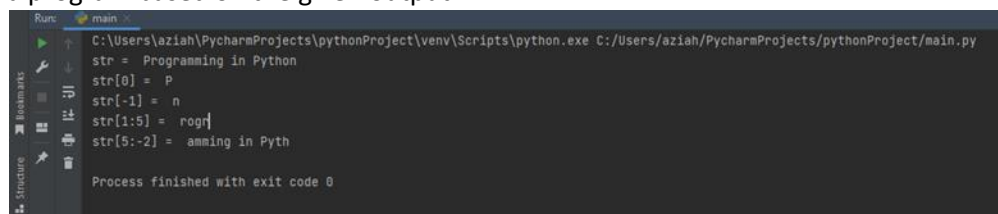2. In the following program, replace the **for** with a **while** loop.

```python
s = "I had a cat named amanda when I was little"
count = 0
for i in s:
    if i == "a":
        count += 1
print(count)
```

Accessing the String

3. Write a program based on the given output:

```
C:\Users\aziah\PycharmProjects\pythonProject\venv\Scripts\python.exe C:/Users/aziah/PycharmProjects/pythonProject/main.py
str = Programming in Python
str[0] = P
str[-1] = n
str[1:5] = rogr
str[5:-2] = amming in Pyth

Process finished with exit code 0
```
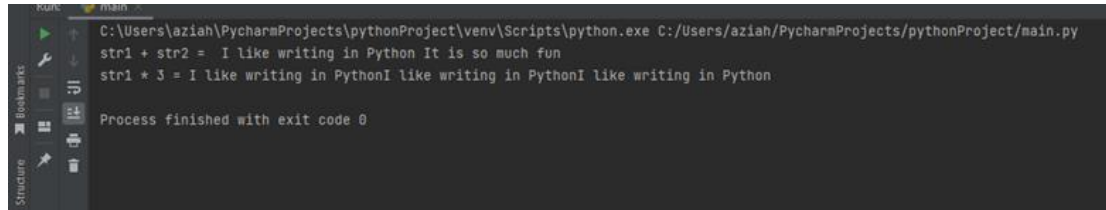
Concatenation of Two or More Strings

4. We know that writing the following code:
```
print("I like writing in Python")
print("It is so much fun")
```

will produce the following result
```
I like writing in Python
It is so much fun
```
when executed. However, can you manage to produce the given output using the strings? Write a program to generate the following output:

```
C:\Users\aziah\PycharmProjects\pythonProject\venv\Scripts\python.exe C:/Users/aziah/PycharmProjects/pythonProject/main.py
str1 + str2 =  I like writing in Python It is so much fun
str1 * 3 = I like writing in PythonI like writing in PythonI like writing in Python

Process finished with exit code 0
```

Part C: Test yourself!

1. Write a Python program to create a new string made of an input of first, middle, and last character.
2. Write a Python program to
   a. Display ' I am a good boy/girl but my parents always scold me'.
   b. Count the length of this string.
   c. Slice this string up to 'Í am a good boy/girl'
   d. Find the word 'parents 'and replace with 'lecturers'
   e. Concatenate 'because I just pretend to be good, HAHAHA'
   f. Display 'good' in upper case
   g. Display "HAHAHA' in lower case
3. Write a Python program to split a given string on hash symbol and display each substring.
   a. Given string = "Magic#Mirror#on#the#wall,#who#is#the#fairest#one#of#all?"
4. Write a Python program to generate below output:
   Given string = "string"

```
C:\Users\aziah\PycharmProjects\pythonProject1\venv\Scripts\python.exe "C:\Users\aziah\PycharmProjects\pythonProject1\Week 1.py"
s
t
r
n
g

Process finished with exit code 0
```