



Python

Session-01





Homework

Q1

- ◆ Print current date and time in Python
- ◆ Print time only

Expected Output

```
2021-03-26 17:49:30.070618
```

```
17:48:34.820141
```

Q2

- ◆ Write a Python program to get the Python version you are using.

A string containing the version number of the Python interpreter plus additional information on the build number and compiler used. This string is displayed when the interactive interpreter is started.

Version info:

A tuple containing the five components of the version number: major, minor, micro, release level, and serial. All values except release level are integers; the release level is 'alpha', 'beta', 'candidate', or 'final'. The version_info value corresponding to the Python version 2.0 is (2, 0, 0, 'final', 0). The components can also be accessed by name, so `sys.version_info[0]` is equivalent to `sys.version_info.major` and so on.

Note : 'sys' module provides access to some variables used or maintained by the interpreter and to functions that interact strongly with the interpreter.

Q3

- ◆ Print first and last name in reverse order with a space between them

Input

```
Mostafa Ali
```

Expected Output

```
Ali Mostafa
```

Q4

- ◆ Write a Python program to print the calendar of a given month and year.

Note : Use 'calendar' module.

```
April 2021
Mo Tu We Th Fr Sa Su
      1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30
```

Q5

- ◆ Write a Python program to parse a string to Float or Integer.

Input

```
n = "246.2458"
```

Expected Output

```
246.2458  
246
```

Q6

- ◆ Repeat the word many times

Input

```
"Hello World"  
3
```

Expected Output

```
"Hellow World"  
"Hellow World"  
"Hellow World"
```


Q7

- ◆ Write a Python program to get a string made of the first 2 and the last 2 chars from a given a string. If the string length is less than 2, return instead the empty string

Input

'w3resource'

'w3'

'w'

Expected Output

'w3ce'

'w3w3'

Empty String



Q8

- ◆ Write a Python program to sum all the items in a list.

Q9

- ◆ Write a Python program to calculate the value of equation of second degree

$$y = 3x^2 + 4x - 3$$

Q10

Concatenate two
lists index-wise

Given:

```
list1 = ["M", "na", "i", "Ke"]  
list2 = ["y", "me", "s", "lly"]
```

Expected output:

```
['My', 'name', 'is', 'Kelly']
```

Q11

Given a Python list of numbers. Turn every item of a list into its square

Given:

```
aList = [1, 2, 3, 4, 5, 6, 7]
```

Expected output:

```
[1, 4, 9, 16, 25, 36, 49]
```

Q12

```
list1 = ["Mike", "", "Emma", "Kelly", "", "Brad"]
```

Expected output:

```
["Mike", "Emma", "Kelly", "Brad"]
```

Remove empty strings from the list of strings

Q13

```
aTuple = (10, 20, 30, 40, 50)
```

Expected output:

```
(50, 40, 30, 20, 10)
```

Reverse the tuple

Q14

```
aTuple = (10, 20, 30, 40)
```

Expected output:

```
aTuple = (10, 20, 30, 40)
# Your code
print(a) # should print 10
print(b) # should print 20
print(c) # should print 30
print(d) # should print 40
```

Unpack the following tuple into
variables

Q15

```
tuple1 = (50, 10, 60, 70, 50)
```

Expected output:

2

Counts the number of occurrences of item from a tuple

Q16

```
set1 = {10, 20, 30, 40, 50}  
set2 = {30, 40, 50, 60, 70}
```

Expected output:

```
{40, 50, 30}
```

Return a new set of identical items
from a given two set

Q17

Returns a new set with all items from both sets by removing duplicate

```
set1 = {10, 20, 30, 40, 50}  
set2 = {30, 40, 50, 60, 70}
```

Expected output:

```
{70, 40, 10, 50, 20, 60, 30}
```

Q18

Given two Python sets, update the first set with items that exist only in the first set and not in the second set

```
set1 = {10, 20, 30}
```

```
set2 = {20, 40, 50}
```

Expected output:

```
set1 {10, 30}
```

Q19

Convert two lists into a dictionary

```
keys = ['Ten', 'Twenty', 'Thirty']  
values = [10, 20, 30]
```

Expected output:

```
{'Ten': 10, 'Twenty': 20, 'Thirty': 30}
```

Q20

Create a new dictionary by extracting the specific keys from a another dictionary

```
sampleDict = {  
    "name": "Kelly",  
    "age": 25,  
    "salary": 8000,  
    "city": "New york"  
}
```

Keys to extract

```
keys = ["name", "salary"]
```

Expected output:

```
{'name': 'Kelly', 'salary': 8000}
```

Q21

Delete set of keys from
a dictionary

Given:

```
sampleDict = {  
    "name": "Kelly",  
    "age": 25,  
    "salary": 8000,  
    "city": "New york"  
}  
  
keysToRemove = ["name", "salary"]
```

Expected output:

```
{'city': 'New york', 'age': 25}
```

THANKS!

