

Assignment Python [Major]

1. Find the data type of these two declaration:

x=5

y="John"

```
x = 5
y = "John"
print(type(x))
print(type(y))

<class 'int'>
<class 'str'>
```

1. Check whether the following syntax is valid or invalid for naming a variable. :Example:
abc=100 # valid syntax

i. 3a=10

ii. @abc=10

iii. a100=100

iv. a984=100

v. a9967\$=100

vi. xyz-2=100

```
3a=10 #invalid
print(3a)
```

```
File "C:\Users\amanc\AppData\Local\Temp\
ipykernel_17464\1906230296.py", line 1
```

```
    3a=10 #invalid
    ^
```

SyntaxError: invalid syntax

```
@abc=10 #invalid
print(@abc)
```

```
File "C:\Users\amanc\AppData\Local\Temp\
ipykernel_17464\1439600110.py", line 1
```

```
    @abc=10 #invalid
    ^
```

SyntaxError: invalid syntax

```
a100=100 #valid
print(a100)
```

```
_a984_=100 #valid
print(_a984_)
```

100

```
a9967$=100 #invalid
print(a9967$)
```

File "C:\Users\amanc\AppData\Local\Temp\ipykernel_17464\1468309244.py", line 1

```
    a9967$=100 #invalid
    ^
```

SyntaxError: invalid syntax

```
xyz-2=100 #invalid
print(xyz-2)
```

File "C:\Users\amanc\AppData\Local\Temp\ipykernel_17464\2603221730.py", line 1

```
    xyz-2=100 #invalid
    ^
```

SyntaxError: cannot assign to operator

1. Check if element exists in list in Python:

```
list = test_list = [1,6,3,5,3,4]
```

1. Check if 3 exist or not'

```
a = 3 #exist
list = [1,6,3,5,3,4]
a in list
```

True

1. Check if 9 exists or not.

```
b = 9 #not exist
list = [1,6,3,5,3,4]
b in list
```

False

1. Take the user input to print the current date.

```
#import date class from datetime module
from datetime import date
```

```

#input by user
year = int(input('Enter a year: '))
month = int(input('Enter a month: '))
day = int(input('Enter a day: '))

#date to be entered by user as input
current_date_you_entered = date(year, month, day)

#today's date
today = date.today()

print(f"You have entered: , {current_date_you_entered}") #entered by user
print("today is: ", today) #today's date

Enter a year: 1999
Enter a month: 10
Enter a day: 21
You have entered: , 1999-10-21
today is: 2023-08-12

```

1. what is the output of the following code:

- a. print9//2
- b. print9%2

```

x = 9//2 #Floor Division
print(x)

4

y = 9%2 #Modulus
print(y)

1

```

1. Print First 10 natural numbers using a while loop.

```

i = 1
while (i<=10):
    print(i)
    i=i+1

1
2
3
4
5
6
7

```

8
9
10

1. Write a program to accept a number from a user and calculate the sum of all numbers from 1 to a given number. For example, if the user entered 10 the output should be 55 (1+2+3+4+5+6+7+8+9+10)

```
number = int(input("Enter the number: "))
sum = 0
for i in range(1, number+1):
    sum += i
print(f"Sum of all numbers from 1 to input number is: {sum}")
```

```
Enter the number: 10
Sum of all numbers from 1 to input number is: 55
```

1. Write a Python program which iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

Example: fizzbuzz 1 2 fizz 4 buzz

```
for fizzbuzz in range(51):
    if fizzbuzz % 3 == 0 and fizzbuzz % 5 == 0:
        print("fizzbuzz")
        continue
    elif fizzbuzz % 3 == 0:
        print("fizz")
        continue
    elif fizzbuzz % 5 == 0:
        print("buzz")
        continue
    print(fizzbuzz)
```

```
fizzbuzz
1
2
fizz
4
buzz
fizz
7
8
fizz
buzz
11
fizz
13
14
```

```
fizzbuzz
16
17
fizz
19
buzz
fizz
22
23
fizz
buzz
26
fizz
28
29
fizzbuzz
31
32
fizz
34
buzz
fizz
37
38
fizz
buzz
41
fizz
43
44
fizzbuzz
46
47
fizz
49
buzz
```