

**NAME:** VIVEK KUMAR VERMA

**Email:** [vivekvermab97@gmail.com](mailto:vivekvermab97@gmail.com)

**Course:** Data science & python program(chat gpt included)

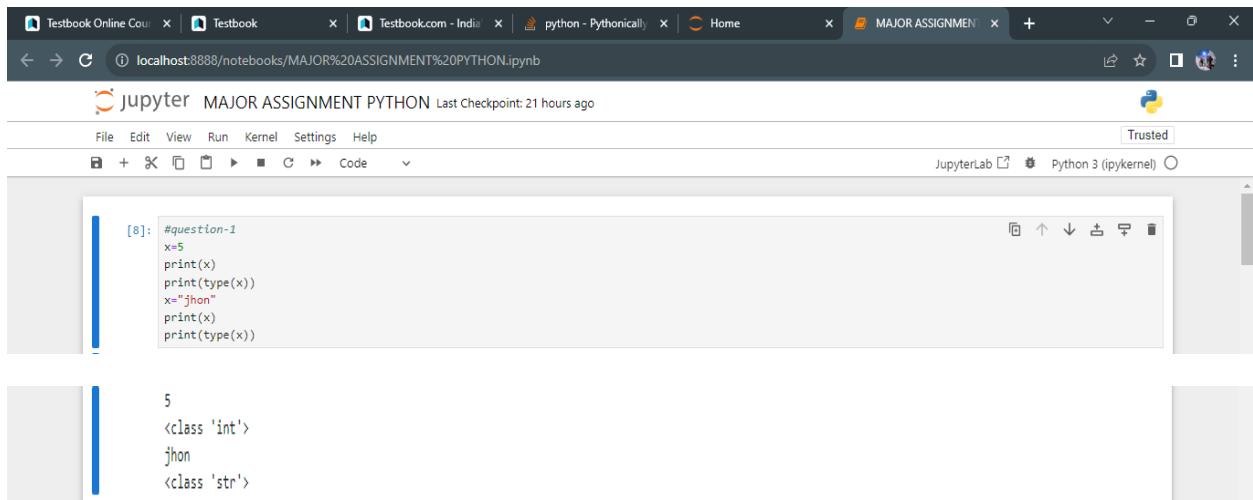
**Assignment:** PYTHON (Major Assignment)

**Question 1:** Find the data type of these two declarations.

x=5

y="John"

**Answer:**



The screenshot shows a Jupyter Notebook interface with the title "jupyter MAJOR ASSIGNMENT PYTHON". The notebook has one cell, indexed [8], containing Python code. The code defines two variables: x=5 and y="John", and then prints their values and types. The output shows that x is an integer (5) and y is a string ("John").

```
[8]: #question-1
x=5
print(x)
print(type(x))
y="John"
print(y)
print(type(y))
```

```
5
<class 'int'>
John
<class 'str'>
```

**Question 2:** Check whether the following syntax is valid or invalid for naming a variable.?

- 1) 3a = 10
- 2) @abc = 10
- 3) a100 = 100
- 4) \_a984\_ = 100
- 5) a9967\$ = 100
- 6) xyz-2 = 100

## Answer:

2(1)  $3a = 10$

The screenshot shows a Jupyter Notebook interface with multiple tabs at the top. The active tab is titled "MAJOR ASSIGNMENT PYTHON". The notebook contains a single cell with the following Python code:

```
[5]: #question-2
#2(1)
3a=10
print(3a)
```

The output area below the code cell shows the following error message:

Cell In[5], line 3  
3a=10  
^  
SyntaxError: invalid decimal literal

2(2)  $@abc = 10$

The screenshot shows a Jupyter Notebook interface with multiple tabs at the top. The active tab is titled "MAJOR ASSIGNMENT PYTHON". The notebook contains a single cell with the following Python code:

```
[12]: #2(2)
@abc=10
print(@abc)
```

The output area below the code cell shows the following error message:

Cell In[12], line 3  
print(@abc)  
^  
SyntaxError: invalid syntax

2(3)  $a100 = 100$

The screenshot shows a Jupyter Notebook interface with multiple tabs at the top. The active tab is titled "MAJOR ASSIGNMENT PYTHON". The notebook contains a single cell with the following Python code:

```
[13]: #2(3)
a100=100
print(a100)
```

The output area below the code cell shows the following output:

100

2(4)  $_a984_ = 100$

The screenshot shows a Jupyter Notebook interface with multiple tabs at the top. The active tab is titled "MAJOR ASSIGNMENT PYTHON". The notebook contains a single cell with the following Python code:

```
[14]: #2(4)
_a984_=100
print(_a984_)
```

The output area below the code cell shows the following output:

100

2(5)  $a9967\$ = 100$

The screenshot shows a Jupyter Notebook interface with multiple tabs at the top. The active tab is titled "MAJOR ASSIGNMENT PYTHON". The notebook contains a single cell with the following Python code:

```
[17]: #2(5)
a9967$=100
print(a9967$)
```

```
Cell In[17], line 1
a9967$=100
^
SyntaxError: invalid syntax
```

## 2(6) $xyz - 2 = 100$

```
[18]: #2(6)
xyz-2=100
print(xyz-2)
```

```
Cell In[18], line 1
xyz-2=100
^
SyntaxError: cannot assign to expression here. Maybe you meant '==' instead of '='?
```

## Question 3: Check if an element exists in the list in Python.

List = test\_list = [1,6,3,5,3,4]

- 1) Check if 3 exist or not.
- 2) Check if 9 exists or not.

## Answer:

### 3(1) Check if 3 exist or not.

The screenshot shows a Jupyter Notebook interface with the title "jupyter MAJOR ASSIGNMENT PYTHON". The code in cell 24 is as follows:

```
[24]: #question-3
#1
list=test_list=[1,6,3,5,3,4]
print(test_list)
i=3
if i in list:
    print("exist")
else:
    print("not exist")
```

The output of the code is:

```
[1, 6, 3, 5, 3, 4]
exist
```

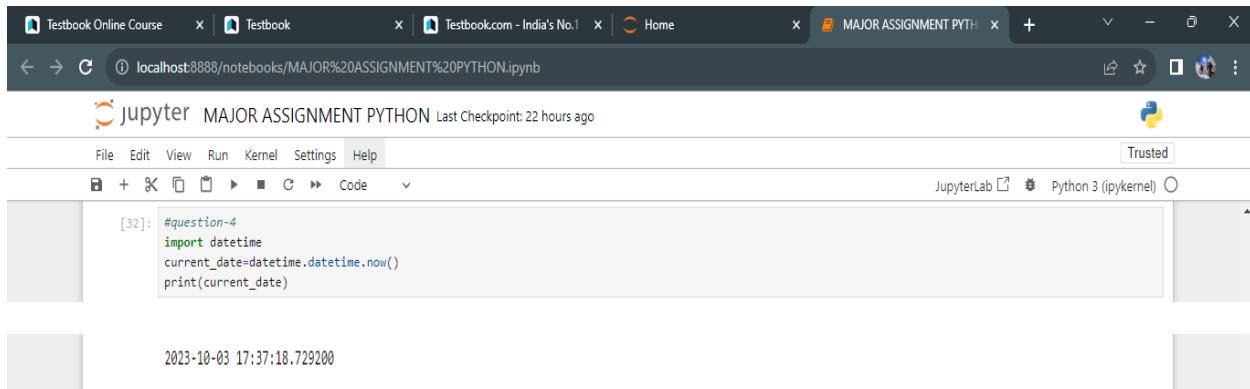
**3(2)** Check if 9 exists or not.

```
[26]: #question-3
#2
list=test_list=[1,6,3,5,3,4]
print(test_list)
i=9
if i in list:
    print("exist")
else:
    print("not exist")
```

```
[1, 6, 3, 5, 3, 4]
not exist
```

**Question 4:** Take the user input to print the current date ?

**Answer:**



The screenshot shows a browser window with multiple tabs. The active tab is titled "MAJOR ASSIGNMENT PYTHON.ipynb". Below the tabs is a navigation bar with icons for back, forward, search, and other functions. The main area is a Jupyter Notebook interface with a toolbar above it. The toolbar includes File, Edit, View, Run, Kernel, Settings, Help, and a Trusted button. The code cell [32] contains the following Python code:

```
[32]: #question-4
import datetime
current_date=datetime.now()
print(current_date)
```

The output of the code is displayed below the cell:

```
2023-10-03 17:37:18.729200
```

**Question 5:** What is the output of the following code ?

- a) Print 9//2
- b) Print 9%2

**Answer:**

```
[34]: #question-5
a=9
b=2
print(a//2)
print(a%2)
```

```
4
1
```

**Question 6:** Print the First 10 Natural Numbers using a while loop.

**Answer:**

```
[3]: #question-6
i=1
while (i<=10):
    print(i)
    i=i+1
```

```
1
2
3
4
5
6
7
8
9
10
```

**Question 7:** Write a program to accept a number from a user and calculate the sum of all numbers from 1 to a given number.

**Answer:**

```
[22]: #question-7
num=int(input("enter the number:"))
sum=0
for i in range(1,num+1):
    sum=sum+i
print(sum)
```

```
enter the number: 6
1
3
6
10
15
21
```

**Question 8:** Write a Python program that iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for multiples of five print "Buzz". For numbers that are multiples of both three and five print "FizzBuzz"?

## Answer:

The screenshot shows two Jupyter Notebook sessions side-by-side. Both sessions are titled "MAJOR ASSIGNMENT PYTHON" and have "Trusted" status.

The top session (Last Checkpoint: 22 hours ago) displays the Python code for the FizzBuzz problem:

```
[38]: #question-8
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)
```

The bottom session (Last Checkpoint: yesterday) shows the output of the code, which prints numbers from 1 to 31, replacing multiples of 3 with "fizz", multiples of 5 with "buzz", and multiples of both with "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
```

The system tray at the bottom of the screen shows the date as 05-10-2023, the time as 00:30, and the weather as 25°C Cloudy.

A screenshot of a Windows desktop environment. At the top, there is a taskbar with several open windows: "Testbook Online Course", "Testbook", "Testbook.com - India's No.1", "Home", and "MAJOR ASSIGNMENT PYTHON.ipynb". The "MAJOR ASSIGNMENT PYTHON.ipynb" window is the active one, showing a Jupyter Notebook interface. The notebook title is "jupyter MAJOR ASSIGNMENT PYTHON" and it indicates "Last Checkpoint: yesterday". The code cell contains the following Python code:

```
31
32
fizz
34
buzz
fizz
37
38
fizz
buzz
41
fizz
43
44
fizzbuzz
46
47
fizz
49
buzz
```

The status bar at the bottom of the screen displays various icons and information: a weather icon showing "25°C Cloudy", a search bar, pinned application icons for File Explorer, Mail, and Google Chrome, and system status indicators like battery level, signal strength, and network connection. The date and time are shown as "05-10-2023 00:30".

```
31
32
fizz
34
buzz
fizz
37
38
fizz
buzz
41
fizz
43
44
fizzbuzz
46
47
fizz
49
buzz
```