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

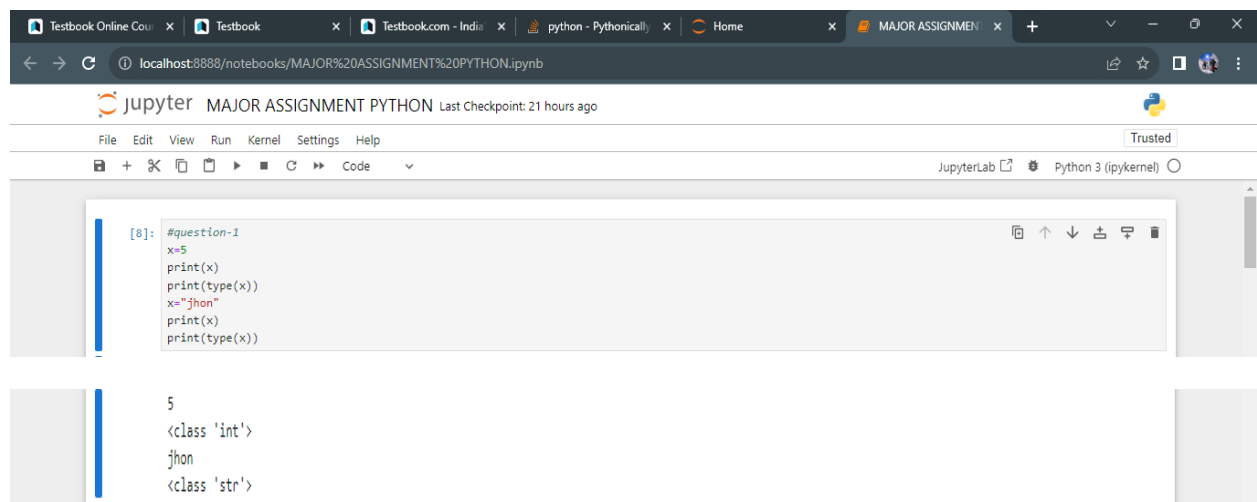
Assignment: PYTHON (Major Assignment)

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

`x=5`

`y="John"`

Answer:



The screenshot shows a JupyterLab interface with a notebook titled 'MAJOR ASSIGNMENT PYTHON'. The code cell contains the following Python code:

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

The output of the code is displayed below the cell:

```
5
<class 'int'>
jhon
<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`

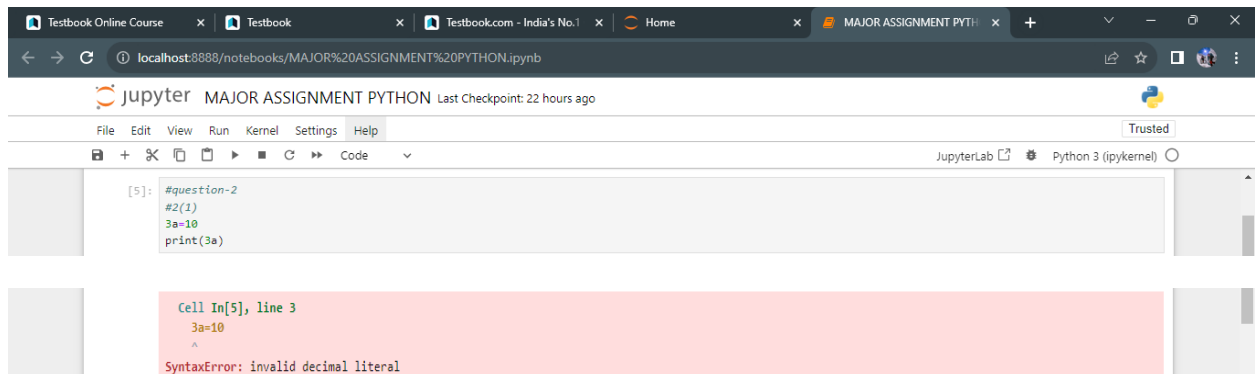
4) `_a984_ = 100`

5) `a9967$ = 100`

6) `xyz-2 = 100`

Answer:

2(1) $3a = 10$



The screenshot shows a Jupyter Notebook window with the title "MAJOR ASSIGNMENT PYTHON". The browser address bar shows "localhost:8888/notebooks/MAJOR%20ASSIGNMENT%20PYTHON.ipynb". The notebook interface includes a menu bar (File, Edit, View, Run, Kernel, Settings, Help) and a toolbar. The code cell [5] contains the following Python code:

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

The output area shows a red error message:

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

2(2) $@abc = 10$



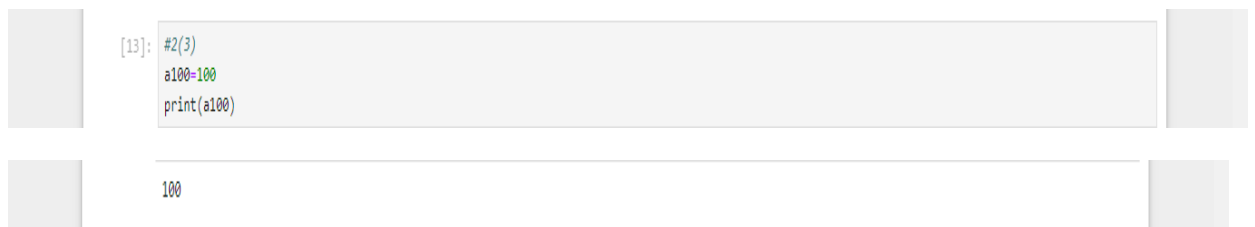
The screenshot shows a Jupyter Notebook window with the title "MAJOR ASSIGNMENT PYTHON". The code cell [12] contains the following Python code:

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

The output area shows a red error message:

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

2(3) $a100 = 100$



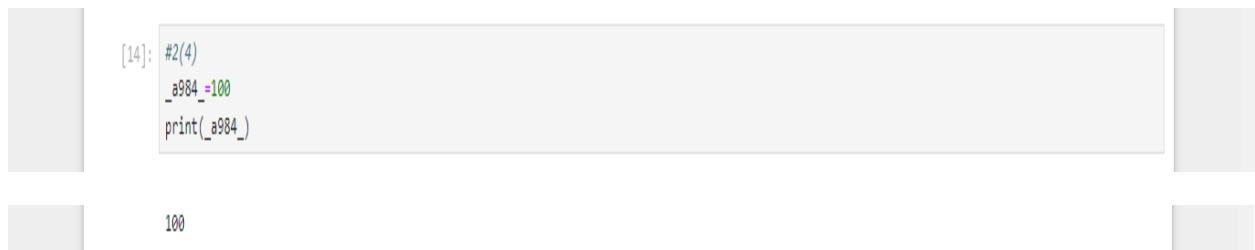
The screenshot shows a Jupyter Notebook window with the title "MAJOR ASSIGNMENT PYTHON". The code cell [13] contains the following Python code:

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

The output area shows the result of the print statement:

```
100
```

2(4) $_a984_ = 100$



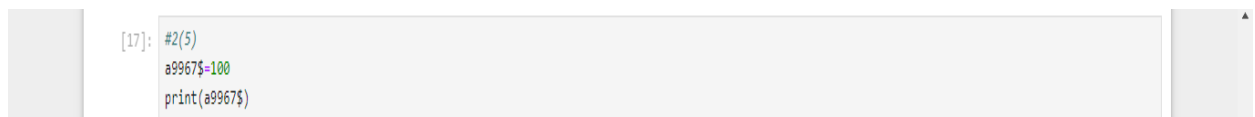
The screenshot shows a Jupyter Notebook window with the title "MAJOR ASSIGNMENT PYTHON". The code cell [14] contains the following Python code:

```
[14]: #2(4)
\_a984\_ =100
print(\_a984\_)
```

The output area shows the result of the print statement:

```
100
```

2(5) $a9967\$ = 100$



The screenshot shows a Jupyter Notebook window with the title "MAJOR ASSIGNMENT PYTHON". The code cell [17] contains 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.

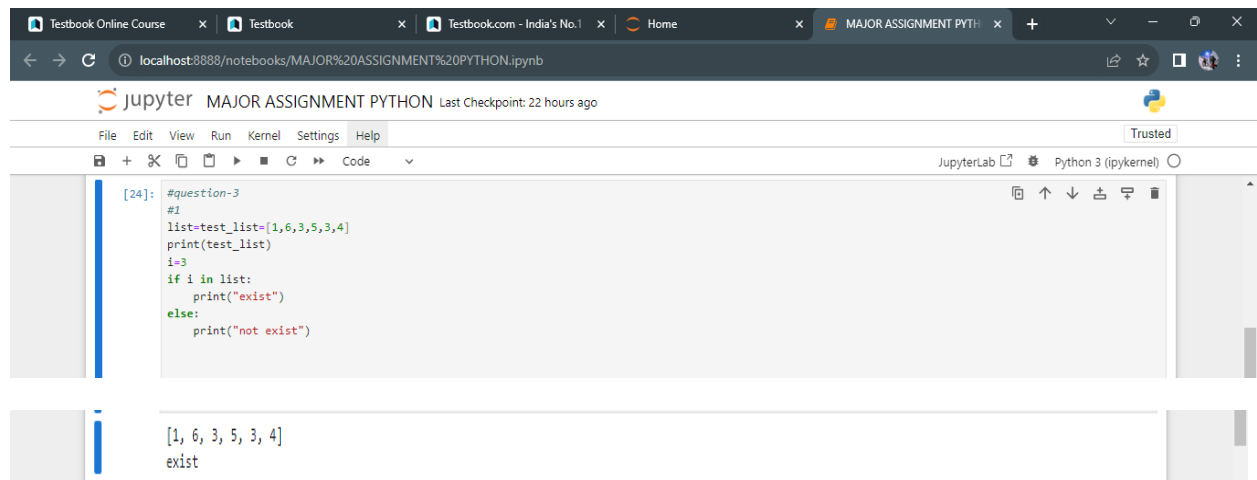
List = test_list = [1,6,3,5,3,4]

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 JupyterLab interface with a browser window at the top displaying several tabs, including 'Testbook Online Course', 'Testbook', 'Testbook.com - India's No.1', 'Home', and 'MAJOR ASSIGNMENT PYTHON'. The main area shows a JupyterLab window titled 'MAJOR ASSIGNMENT PYTHON' with a 'Last Checkpoint: 22 hours ago' status. The interface includes a menu bar (File, Edit, View, Run, Kernel, Settings, Help) and a toolbar. The code editor contains the following Python code:

```
[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 area below the code editor displays the result of the code execution:

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

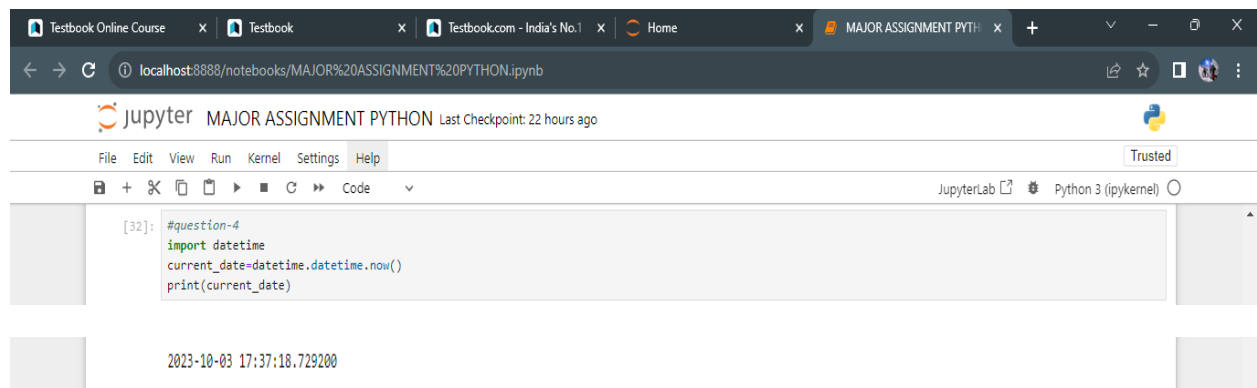
3(2) Check if 9 exists or not.

```
[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 web browser window with multiple tabs. The active tab is titled 'MAJOR ASSIGNMENT PYTHON'. The address bar shows the URL 'localhost:8888/notebooks/MAJOR%20ASSIGNMENT%20PYTHON.ipynb'. The JupyterLab interface is visible, with a menu bar (File, Edit, View, Run, Kernel, Settings, Help) and a toolbar. The code editor displays the following Python code:

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

The output of the code is displayed below the code editor:

```
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.

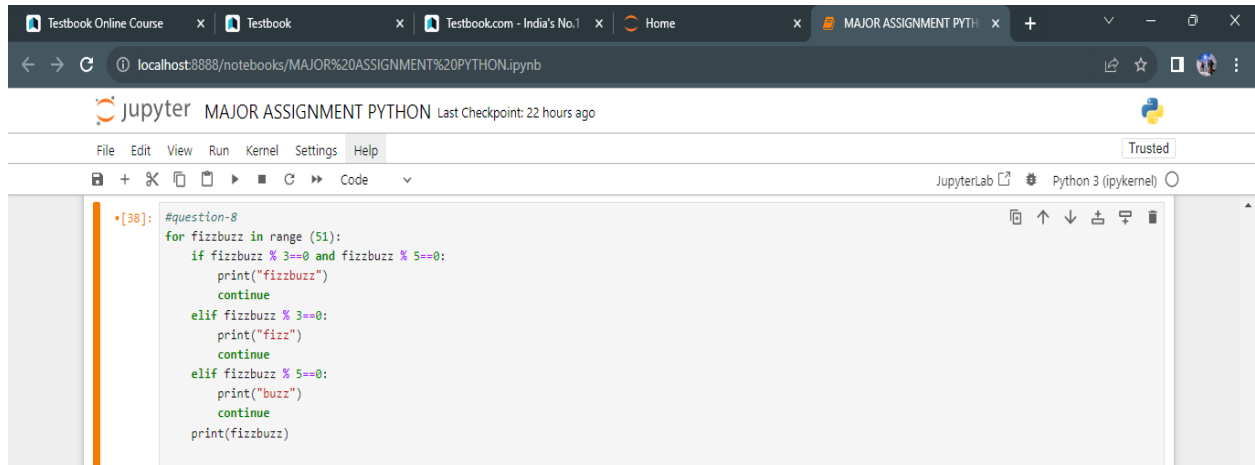
Answer:

```
[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
```

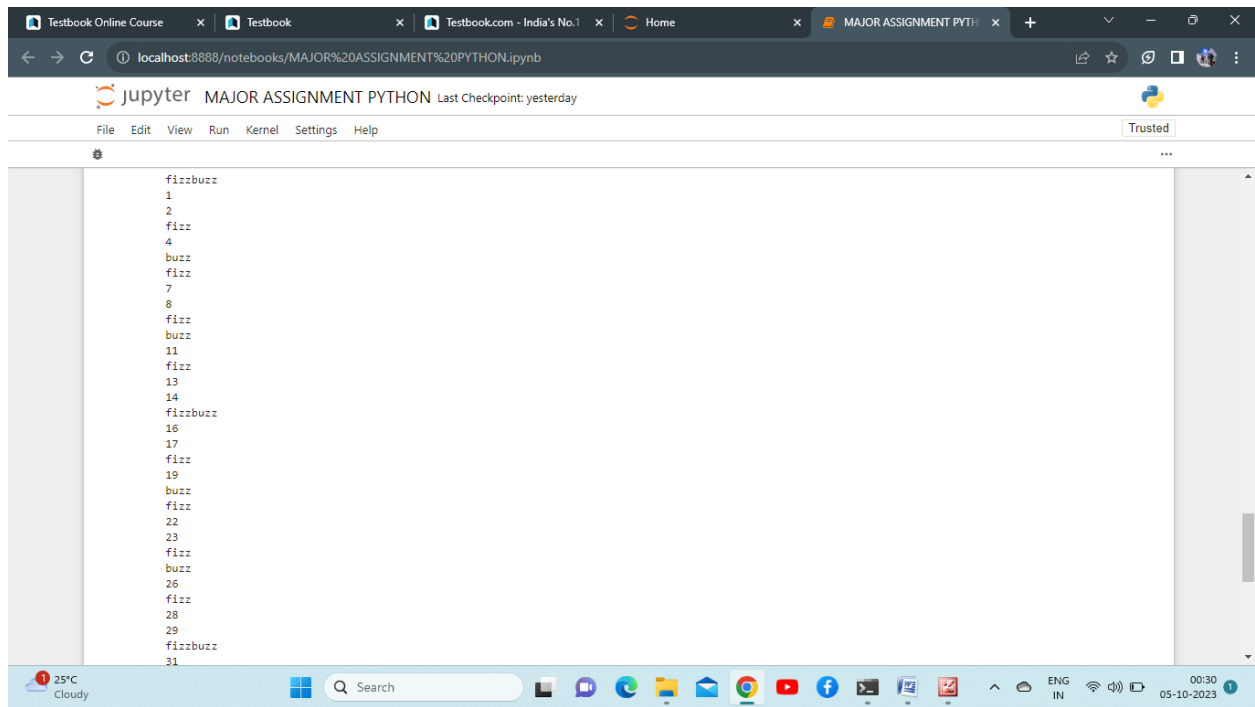
Question 8: Write a Python program that iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for multiples of five print "Buzz". For numbers that are multiples of both three and five print "FizzBuzz"?

Answer:



The screenshot shows a JupyterLab interface with a notebook titled "MAJOR ASSIGNMENT PYTHON". The code in the cell is as follows:

```
[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 screenshot shows the same JupyterLab interface, but the code cell has been executed, and the output is displayed in the cell below. The output is a list of numbers from 1 to 31, with "fizz" replacing multiples of 3, "buzz" replacing multiples of 5, and "fizzbuzz" replacing multiples of both 3 and 5.

```
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
```

Testbook Online Course x Testbook x Testbook.com - India's No.1 x Home x MAJOR ASSIGNMENT PYTHON x

localhost:8888/notebooks/MAJOR%20ASSIGNMENT%20PYTHON.ipynb

Jupyter MAJOR ASSIGNMENT PYTHON Last Checkpoint: yesterday

File Edit View Run Kernel Settings Help Trusted

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

[]:

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