

1. Find the data type of these two declarations. `x=5` `y="John"`



```
+ Code + Markdown | ▶ Run All ↺ Restart ≡  
▶  
x=5  
y="John"  
type(x),type(y)  
[11] ✓ 0.0s  
... (int, str)
```

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

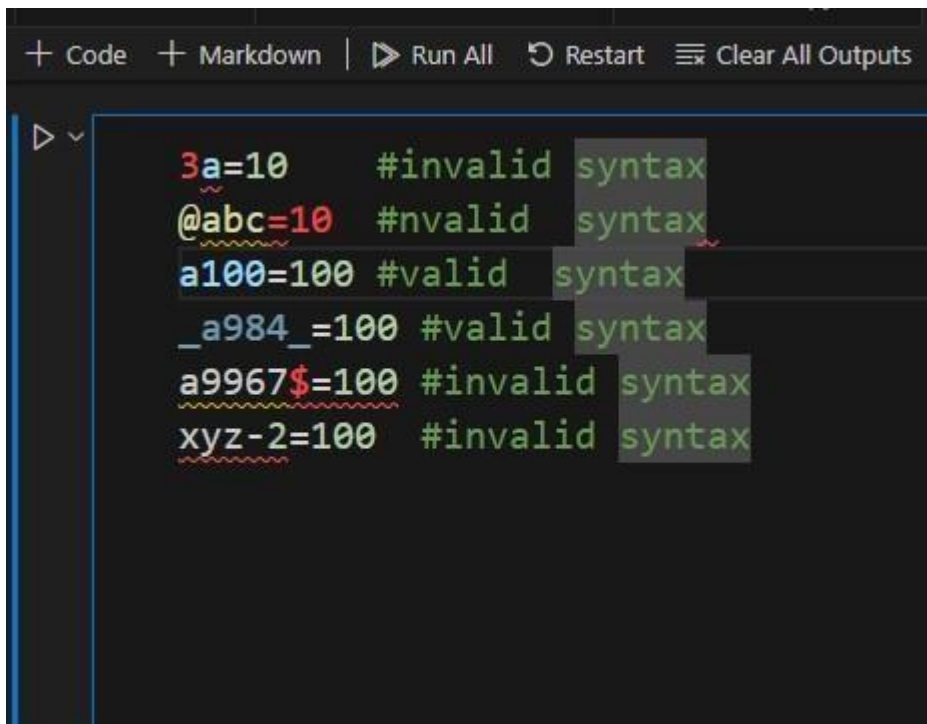
1) `3a=10`

2) `@abc=10`

3) `a100=100`

4) `_a984_=100` 5) `a9967$=100`

6) `xyz-2=100`



```
+ Code + Markdown | ▶ Run All ↺ Restart ≡ Clear All Outputs  
▶  
3a=10 #invalid syntax  
@abc=10 #nvalid syntax  
a100=100 #valid syntax  
_a984_=100 #valid syntax  
a9967$=100 #invalid syntax  
xyz-2=100 #invalid syntax
```

3. Check if an element exists in the list in Python. list = test list = [1, 6, 3, 5, 3, 4]
4] **1) Check if 3 exist or not.**

```
+ Code + Markdown | ▶ Run All ↺ Restart ≡ Clear All Outputs | ≡ Outline

list = test_list = [1, 6, 3, 5, 3, 4]
[2] ✓ 0.0s

▶ if 3 in list:
    print("exist")
else:
    print("does not exist")
[3] ✓ 0.0s

... exist
```

- 2) Check if 9 exists or not.**

```
+ Code + Markdown | ▶ Run All ↺ Restart ≡ Clear All Outputs | ≡ Outline

list = test_list = [1, 6, 3, 5, 3, 4]
[2] ✓ 0.0s

▶ if 9 in list:
    print("exist")
else:
    print("does not exists")
[5] ✓ 0.0s

... does not exists
```

4. Take the user input to print the current date?

```
jarves = input("how can i help you")
import datetime
date=datetime.datetime.now().date()
print(jarves,date)
```

[33] ✓ 4.6s

... current date 2024-04-03

5. What is the output of the following code?

a) print 9//2

```
x=9//2
print(x)
```

[39] ✓ 0.0s

... 4

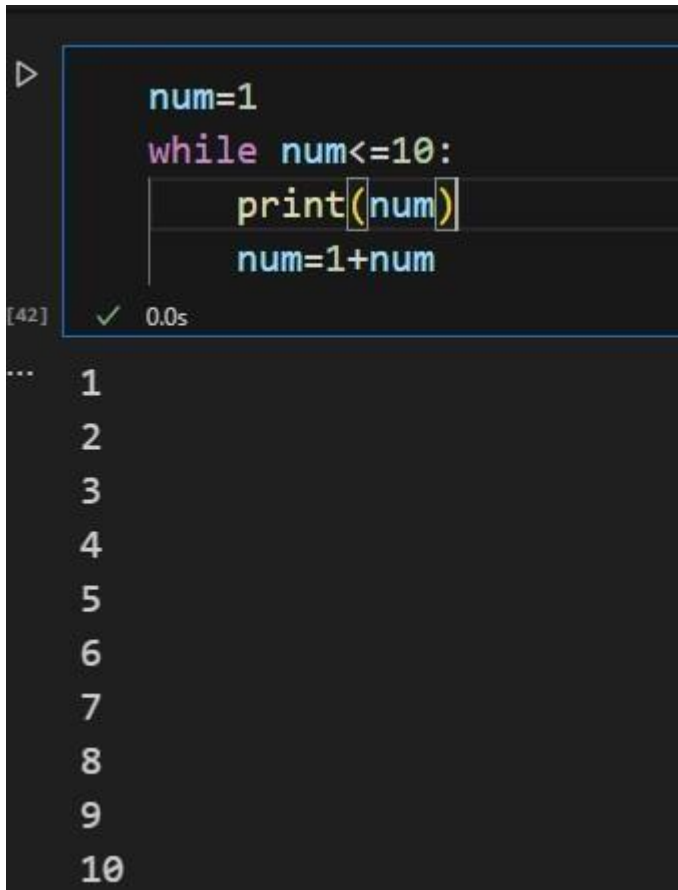
b) print 9%2

```
y=9%2
print(y)
```

[40] ✓ 0.0s

... 1

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



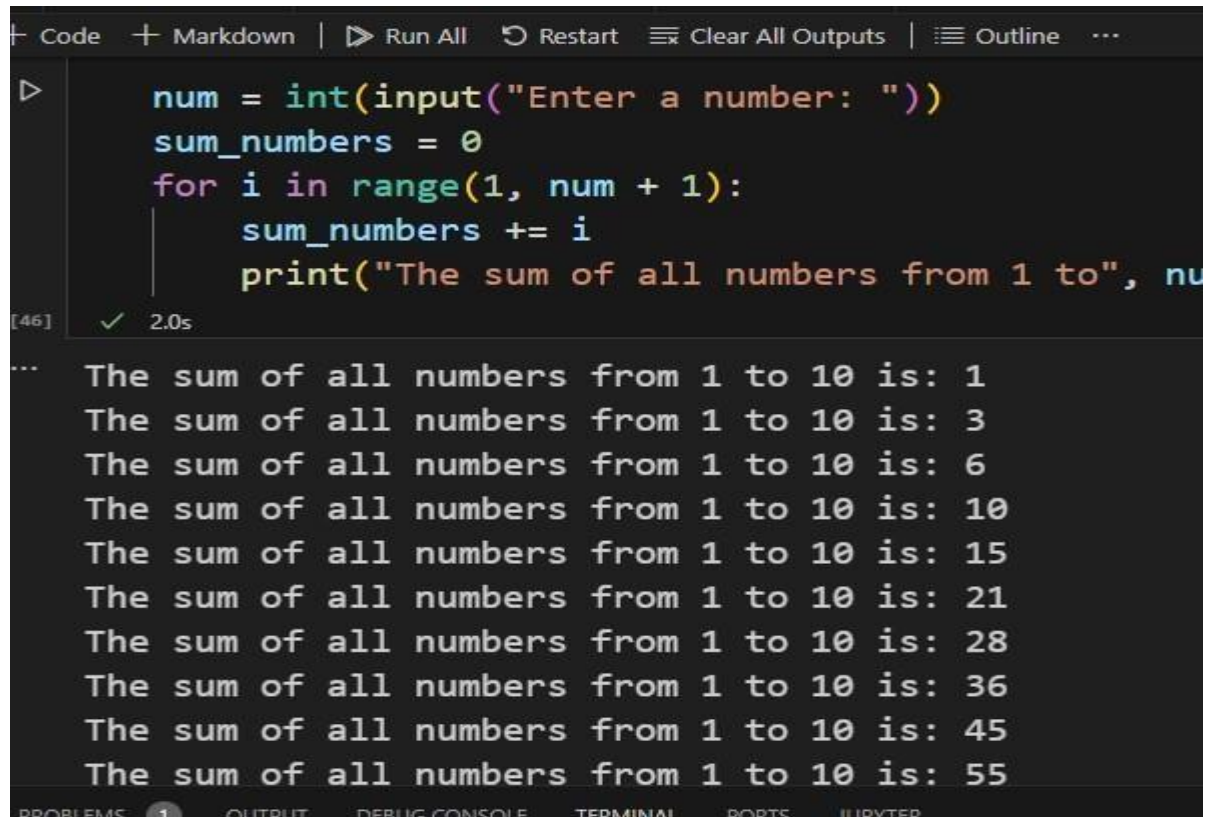
```
num=1
while num<=10:
    print(num)
    num=1+num
```

[42] ✓ 0.0s

...

1
2
3
4
5
6
7
8
9
10

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



The screenshot shows a Jupyter Notebook interface. The top bar includes tabs for 'Code', 'Markdown', 'Run All', 'Restart', 'Clear All Outputs', and 'Outline'. The code cell contains the following Python code:

```
num = int(input("Enter a number: "))
sum_numbers = 0
for i in range(1, num + 1):
    sum_numbers += i
    print("The sum of all numbers from 1 to", num, "is:", sum_numbers)
```

The output cell shows the results of running the code for different input values (1 through 10):

```
... The sum of all numbers from 1 to 10 is: 1
The sum of all numbers from 1 to 10 is: 3
The sum of all numbers from 1 to 10 is: 6
The sum of all numbers from 1 to 10 is: 10
The sum of all numbers from 1 to 10 is: 15
The sum of all numbers from 1 to 10 is: 21
The sum of all numbers from 1 to 10 is: 28
The sum of all numbers from 1 to 10 is: 36
The sum of all numbers from 1 to 10 is: 45
The sum of all numbers from 1 to 10 is: 55
```

The bottom of the notebook shows tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', 'PORTS', and 'JUPYTER'.

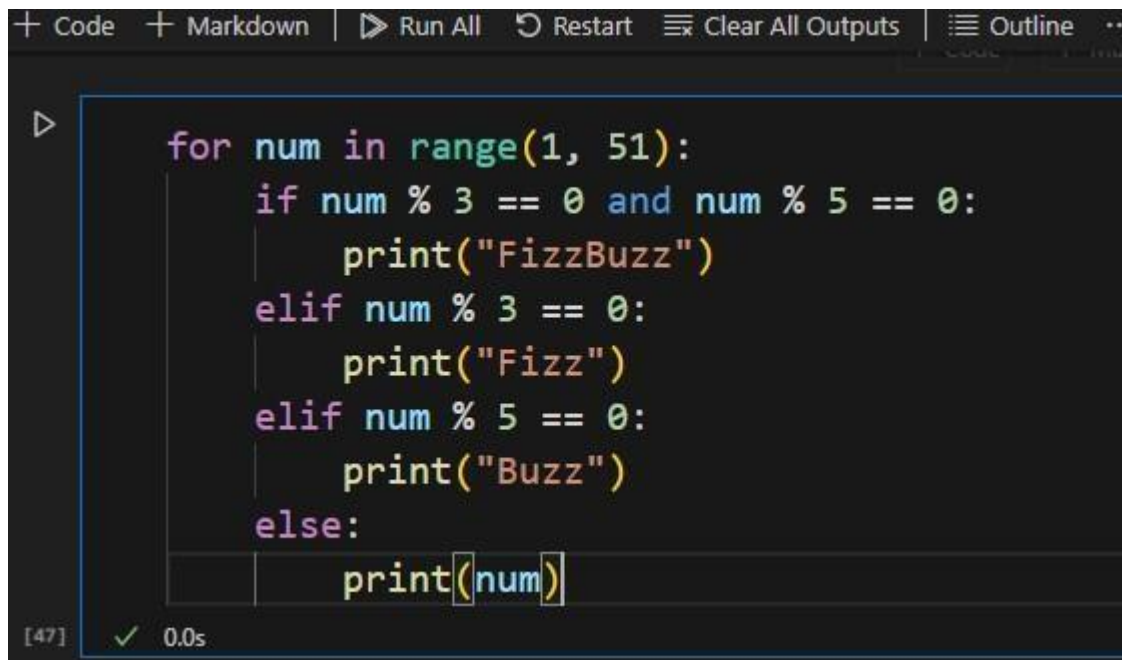
8. Write a Python program that iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for multiples of five print "Buzz". For numbers that are multiples of both three and five print "FizzBuzz"?

NAME-Raul Chakraborty

COURSE NAME - DATA SCIENCE WITH PYTHON CAREER PROGRAM

EMAIL-
raulchakraborty8@gmail.com

ASSIGNMENT - Python[Major]



The image shows a Jupyter Notebook interface with a dark theme. At the top, there is a toolbar with icons for '+ Code', '+ Markdown', 'Run All', 'Restart', 'Clear All Outputs', and 'Outline'. Below the toolbar is a code editor containing a Python script for the FizzBuzz problem. The script iterates through numbers from 1 to 50 (using range(1, 51)). For each number, it checks if it is divisible by both 3 and 5. If so, it prints 'FizzBuzz'. If only divisible by 3, it prints 'Fizz'. If only divisible by 5, it prints 'Buzz'. Otherwise, it prints the number itself. The code is syntax-highlighted. At the bottom left of the code editor, there is a status bar showing '[47]', a green checkmark, and '0.0s', indicating the code has been successfully executed.

```
for num in range(1, 51):  
    if num % 3 == 0 and num % 5 == 0:  
        print("FizzBuzz")  
    elif num % 3 == 0:  
        print("Fizz")  
    elif num % 5 == 0:  
        print("Buzz")  
    else:  
        print(num)
```

[47] ✓ 0.0s

NAME-Raul Chakraborty

COURSE NAME - DATA SCIENCE WITH PYTHON CAREER PROGRAM

EMAIL-
raulchakraborty8@gmail.com

ASSIGNMENT - Python[Major]

```
Code + Markdown | ▶ Run All | ⏻ Restart | ≡ Clear All Outputs |
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz
16
17
Fizz
19
Buzz
Fizz
22
```

NAME-Raul Chakraborty

EMAIL-
raulchakraborty8@gmail.com

COURSE NAME - DATA SCIENCE WITH PYTHON CAREER PROGRAM

ASSIGNMENT - Python[Major]

```
Code | Markdown | Run All | Restart | Clear All Outputs | Outline
13
14
FizzBuzz
16
17
Fizz
19
Buzz
Fizz
22
23
Fizz
Buzz
...
47
Fizz
49
Buzz
```

THE END

THANK YOU