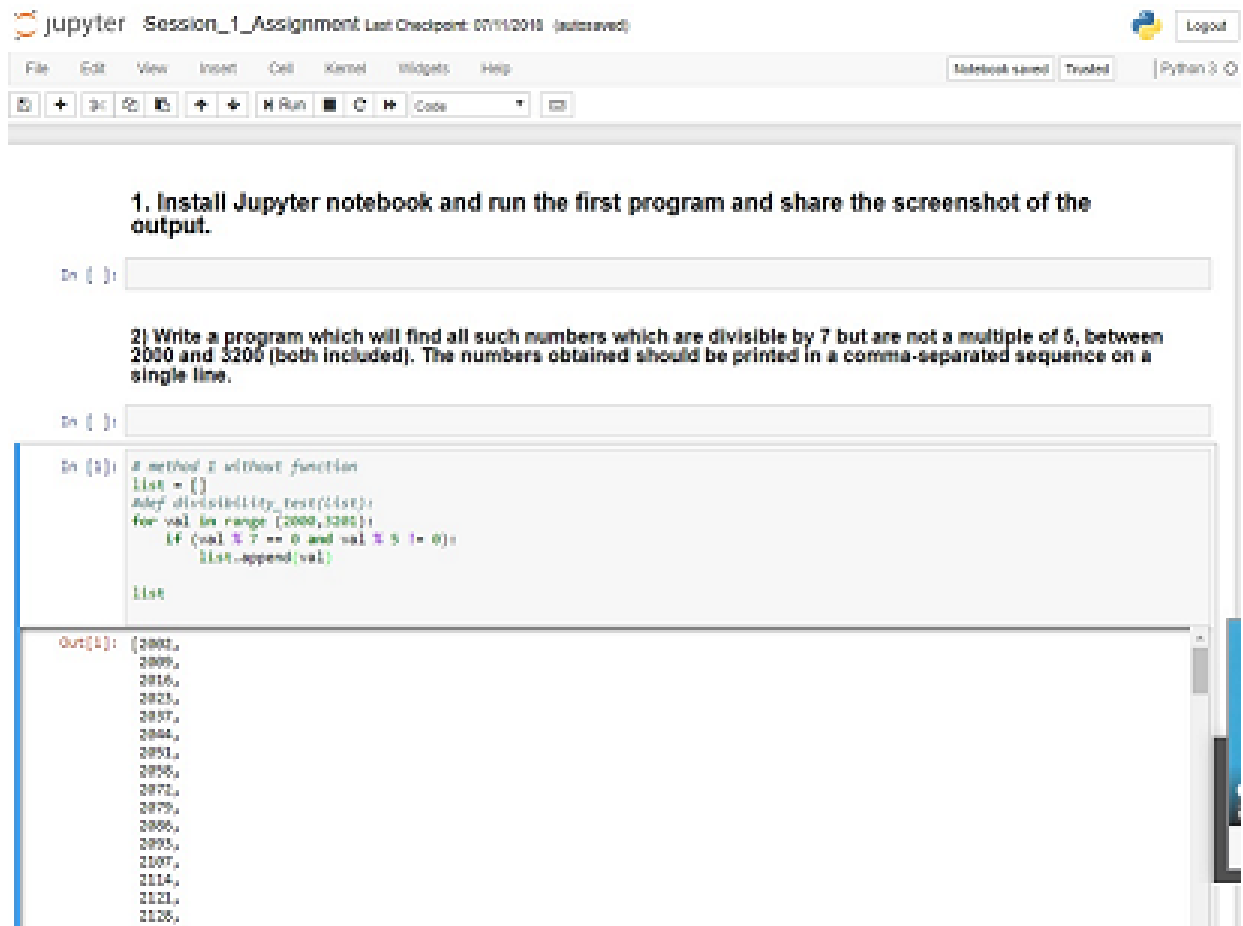


# 1. Install Jupyter notebook and run the first program and share the screenshot of the output.



2) Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200 (both included). The numbers obtained should be printed in a comma-separated sequence on a single line.

```
In [10]: # method 1 without function
list1 = []
#def divisibility_test(list):
for val in range (2000,3201):
    if (val % 7 == 0 and val % 5 != 0):
        list1.append(val)

list1
```

```
2044,
2051,
2058,
2072,
2079,
2086,
2093,
2107,
2114,
2121,
2128,
2142,
2149,
2156,
2163,
2177,
2184,
2191,
2198,
2212,
...
```

```
In [11]: list2 = list (range(2000,3201))
list2
```

```
Out[11]: [2000,
2001,
2002,
2003,
2004,
2005,
2006,
2007,
2008,
2009,
2010,
2011,
2012,
2013,
2014,
2015,
2016,
2017,
2018,
2019,
...
```

```
In [12]: # method 2 with function
list_div = []
def divisibility_test(list):
    for val in list:
        if (val % 7 == 0 and val % 5 != 0):
            list_div.append(val)

    return list_div
```

```
In [13]: divisibility_test(list2)
```

```
Out[13]: [2002,
2009,
2016,
2023,
2037,
2044,
2051,
2058,
2072,
2079,
2086,
2093,
2107,
2114,
2121,
2128,
2142,
2149,
2156,
2163]
```

**3. Write a Python program to accept the user's first and last name and then getting them printed in the the reverse order with a space between first name and last name.**

```
In [14]: # Reversing the Input name accepted through input command

first_name = input("What is your First name? ")
middle_name = input("What is your Middle name? ")
last_name = input("What is your last name? ")
print (last_name + " " + middle_name + " " + first_name)
```

```
What is your First name? Prashant
What is your Middle name? Kumar
What is your last name? Gupta
Gupta Kumar Prashant
```

```
In [15]: # Reversing the name through function

name = first_name + " " + middle_name + " " + last_name
print(name)
def reverseWords(input):

    # split words of string separated by space
    inputWords = input.split(" ")

    # reverse list of words
    # suppose we have list of elements list = [1,2,3,4],
    # list[0]=1, list[1]=2 and index -1 represents
    # the last element list[-1]=4 ( equivalent to list[3]=4 )
    # So, inputWords[-1::-1] here we have three arguments
    # first is -1 that means start from last element
    # second argument is empty that means move to end of list
    # third arguments is difference of steps
    inputWords=inputWords[-1::-1]

    # now join words with space
    output = ' '.join(inputWords)

    return output

print (reverseWords(name))
```

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**4. Write a Python program to find the volume of a sphere with diameter 12 cm.**

**Formula:  $V = \frac{4}{3} \pi r^3$**

```
In [16]: pi = 3.14 # It can be more also
r= 6.0 # half of diameter
V= 4/3* pi * r**3
print('The volume of the sphere is: ',V)
```

The volume of the sphere is: 904.3199999999999