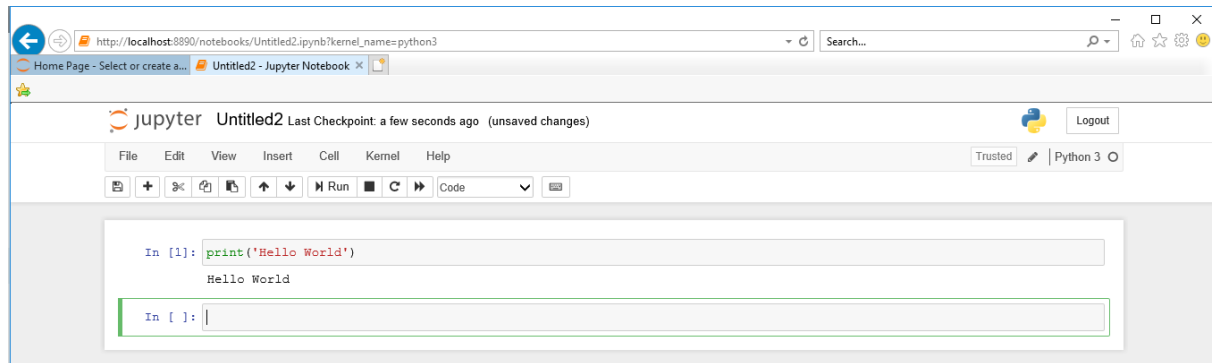# Task 1:

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.

Code:

```
xx=[]
for i in range(2000, 3201):
    if (i%7==0) and (i%5!=0):
        xx.append(str(i))
print (','.join(xx))
```


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

Code:

```
fname = input("Enter the first number")
lname = input("Enter the last name")

print(fname[::-1] + " " + lname[::-1])
```

4. Write a Python program to find the volume of a sphere with diameter 12 cm.
   Formula: $V = 4/3 * \pi * r^3$

Code:

```
d=12
r=d/2
pi = 3.1415926535897931
V= 4.0/3.0*pi* r**3
print('The volume of the sphere is: ',V)
```

```
In [19]: d=12
         r=d/2
         pi = 3.1415926535897931
         V= 4.0/3.0*pi* r**3
         print('The volume of the sphere is: ',V)

         The volume of the sphere is:  904.7786842338603
```

Task 2:

1. Write a program which accepts a sequence of comma-separated numbers from console and Generate a list.

Code:

```
values = input("Input some comma separated numbers : ")
list = values.split(",")

print('List : ',list)
```

```
In [9]: values = input("Input some comma separated numbers : ")
        list = values.split(",")

        print('List : ',list)

        Input some comma seprated numbers : 3,4,5,6,7
        List :  ['3', '4', '5', '6', '7']
```

2. Create the below pattern using nested for loop in Python.

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

Code :
```
n=5;
for i in range(n):
 for j in range(i):
   print ('* ', end="")
print('')

for i in range(n,0,-1):
 for j in range(i):
  print('* ', end="")
print('')
```

```
In [20]: n=5;
         for i in range(n):
             for j in range(i):
                 print ('* ', end="")
             print('')

         for i in range(n,0,-1):
             for j in range(i):
                 print('* ', end="")
             print('')
```

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

3. Write a Python program to reverse a word after accepting the input from the user.

Sample Output:
Input word: AcadGild
Output: dilGdacA

Code:
```
s = input("Enter a string: ")
print (s[::-1])
```

```
In [22]: s = input("Enter a string: ")
         print (s[::-1])

         Enter a string: nandini
         inidnan
```

4. Write a Python Program to print the given string in the format specified in the **sample output.**

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a
SOVEREIGN, SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all
its citizens

Code:

print("WE, THE PEOPLE OF INDIA,\n\thaving solemnly resolved to constitute India into a
SOVEREIGN, ! \n\t\tSOCIALIST, SECULAR, DEMOCRATIC REPUBLIC \n\t\t and to secure to all
its citizens")

```
In [7]: print("WE, THE PEOPLE OF INDIA,\n\thaving solemnly resolved to constitute India into a SOVEREIGN, ! \n\t\tSOCIALIST, SEC

        WE, THE PEOPLE OF INDIA,
                having solemnly resolved to constitute India into a SOVEREIGN, !
                        SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC
                         and to secure to all its citizens
```