Session 1

Assignment 1 Answer

Ali BASSAL

Session 1: Assignment 1

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1. Introduction

This assignment will help you to consolidate the concepts learnt in the session.

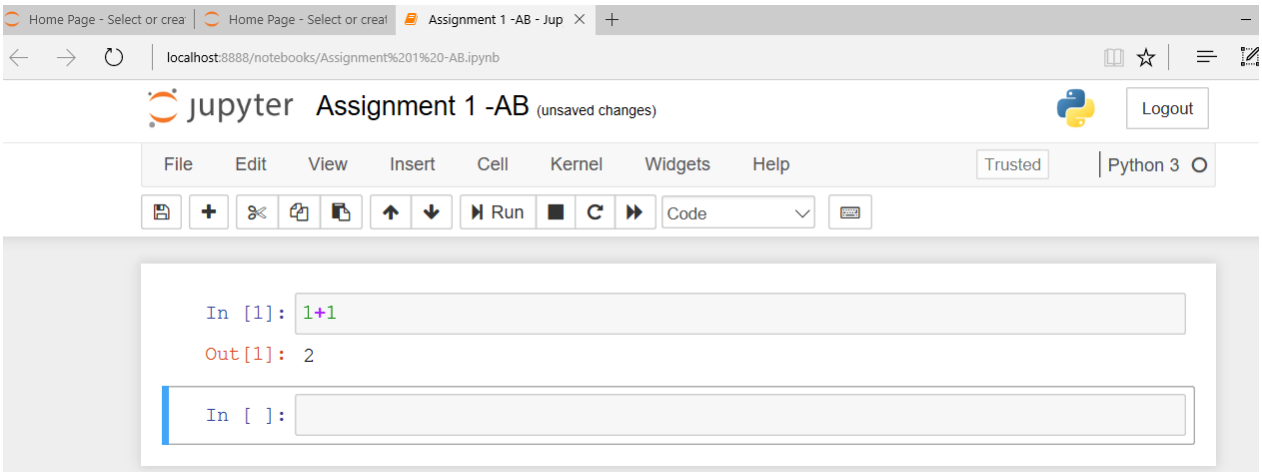
2. Problem Statement

Task 1:

1.

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

LINK : http://localhost:8888/notebooks/Assignment%201%20-AB.ipynb



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.

```
a = list(range(2000,3200))
m=[]
for i in a:
    if i%7 == 0 and i%5 != 0:
        m.append(i)
```

```
m
```

```
[2002,
 2009,
 2016,
 2023,
 2037,
 2044,
 2051,
 2058,
 2072,
```

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.

```
S="Ali BASSAL"
S[::-1]
```

```
'LASSAB ilA'
```

OR

```
a=input("First and last Name: ")
b=["Ali BASSAL"]
m=[]
for i in b:
    if(i==a):
        m.append(i[::-1])
m
```

```
First and last Name: Ali BASSAL

['LASSAB ilA']
```

OR

```
a=input("First and last Name: ")
b=["Ali BASSAL"]
for i in b:
    if(i==a):
        print(i[::-1])
```

```
First and last Name: Ali BASSAL
LASSAB ilA
```

4.

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

Formula: $V=4/3 * \pi * r^3$

```
#Volume of Sphere
import math
pi=math.pi
d=12
r=d/2
v=4/3*pi*r**3
v
```

```
904.7786842338603
```

Task 2:

1.

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

```
a=input("Numbers: ")
list=a.split(",")
print(list)
```

```
Numbers: 3,4,5,6,7
['3', '4', '5', '6', '7']
```

2.

Create the below pattern using nested for loop in Python.

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

In [234]:
```
a=[1,2,3,4,5,6,7,8,9]
for i in a:
    if(i==1):
        print(1)
    elif(i==2):
        print(1,2)
    elif(i==3):
        print(1,2,3)
    elif(i==4):
        print(1,2,3,4)
    elif(i==5):
        print(1,2,3,4,5)
    elif(i==6):
        print(1,2,3,4)
    elif(i==7):
        print(1,2,3)
    elif(i==8):
        print(1,2)
    elif(i==9):
        print(1)
```

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

3.

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

Sample Output:

Input word: AcadGild

Output: dilGdacA

```
In [219]: a=input("Reverse word ")
          b=["AcadGild "]
          m=[]
          for i in b:
              if(i==a):
                  m.append(i[::-1])
          m

          Reverse word AcadGild

Out[219]: [' dliGdacA']
```

4.

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

```
In [18]: print("WE, THE PEOPLE OF INDIA, \n\thaving solemnly resolved to constitute India into a SOVEREIGN,\n\t\tSOCIALIST,
```

```
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
```

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

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

NOTE: The solution shared through Github should contain the source code used and the screenshot of the output.

3. Output

N/A