Python session 1

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

```
In [9]: def firstprogram():
            print("Hello world")

        firstprogram()
        Hello world
```

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.

```
2002 2009 2016 2023 2037 2044 2051 2058 2072 2079 2086 2093 2107 2114 2121 2128 2142 2149 2156 2163 2177 2184 2191 2198 2212 22
19 2226 2233 2247 2254 2261 2268 2282 2289 2296 2303 2317 2324 2331 2338 2352 2359 2366 2373 2387 2394 2401 2408 2422 2429 2436
2443 2457 2464 2471 2478 2492 2499 2506 2513 2527 2534 2541 2548 2562 2569 2576 2583 2597 2604 2611 2618 2632 2639 2646 2653 26
67 2674 2681 2688 2702 2709 2716 2723 2737 2744 2751 2758 2772 2779 2786 2793 2807 2814 2821 2828 2842 2849 2856 2863 2877 2884
2891 2898 2912 2919 2926 2933 2947 2954 2961 2968 2982 2989 2996 3003 3017 3024 3031 3038 3052 3059 3066 3073 3087 3094 3101 31
08 3122 3129 3136 3143 3157 3164 3171 3178 3192 3199
```

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.

```
sunil
karri
karri sunil
```

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

Formula: V=4/3 * π * r

```
enter diameter12
6.0
904.7786842338603
```

Python Session 2

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

and generate a list.

```
5,4,7,9,1
[5, 4, 7, 9, 1]
```

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

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

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

```
AcadGild
dliGdacA
```

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

```
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
```

Python session 3

1.1 Write a Python Program to implement your own myreduce() function which works exactly like Python's built-in function reduce()

```
15
```

1.2 Write a Python program to implement your own myfilter() function which works exactly like Python's built-in function filter()

```
[20, 22, 24, 32]
```

2. Implement List comprehensions to produce the following lists.

Write List comprehensions to produce the following Lists

```
['A', 'C', 'A', 'D', 'G', 'I', 'L', 'D']
--------------------------------------------------------------------------------
['x', 'y', 'z', 'xx', 'yy', 'zz', 'xxx', 'yyy', 'zzz', 'xxxx', 'yyyy', 'zzzz']
--------------------------------------------------------------------------------
['x', 'xx', 'xxx', 'xxxx', 'y', 'yy', 'yyy', 'yyyy', 'z', 'zz', 'zzz', 'zzzz']
--------------------------------------------------------------------------------
[[2], [3], [4], [3], [4], [5], [4], [5], [6]]
--------------------------------------------------------------------------------
[[2, 3, 4], [3, 4, 5], [4, 5, 6]]
--------------------------------------------------------------------------------
[(1, 1), (2, 1), (3, 1), (1, 2), (2, 2), (3, 2), (1, 3), (2, 3), (3, 3)]
```

3. Implement a function longestWord() that takes a list of words and returns the longest one.

```
thisisthelongestwordperhapsyoucouldfindinthislist
```

Python session 4

1.1 Write a Python Program(with class concepts) to find the area of the triangle using the below

formula.

area = (s*(s-a)*(s-b)*(s-c)) ** 0.5

Function to take the length of the sides of triangle from user should be defined in the parent

class and function to calculate the area should be defined in subclass.

```
2.9047375096555625
```

1.2 Write a function filter_long_words() that takes a list of words and an integer n and returns

the list of words that are longer than n.

```
['kapodokia', 'kumar', 'mutyala']
```

2.1 Write a Python program using function concept that maps list of words into a list of integers

representing the lengths of the corresponding words.

```
[4, 7, 5, 5]
```

2.2 Write a Python function which takes a character (i.e. a string of length 1) and returns True

if

it is a vowel, False otherwise.

```
False
True
True
True
```

Python session 5

1. Write a function to compute 5/0 and use try/except to catch the exceptions.

```
arthematic error like division by zero
operations completed
```

2. Implement a Python program to generate all sentences where subject is in

["Americans", "Indians"] and verb is in ["Play", "watch"] and the object is in

["Baseball","cricket"].

```
Americans Play Baseball
Americans Play Cricket
Americans watch Baseball
Americans watch Cricket
Indians Play Baseball
Indians Play Cricket
Indians watch Baseball
Indians watch Cricket
```

Project

Piggy bank

```
start or end : start
register or login register
enter usernamearun
enter passwordsanpizzaro
--------------------------------------------------------------------------------
Hello  arun!
add or withdraw add
please enter amount1000
Your money has been successully added!!!! please login and check your balance

start or end : start
register or login login
enter usernamearun
enter passwordsanpizzaro
welcome back arun
your balance is
1000.0
--------------------------------------------------------------------------------
withdraw or add or check or exitexit
--------------------------------------------------------------------------------
thank you ,visit again

start or end : start
register or login login
enter usernamearun
enter passwordsanpizzaro
welcome back arun
your balance is
1000.0
--------------------------------------------------------------------------------
withdraw or add or check or exitwithdraw
```