Python - Basics & Beyond -Session 5

Functions(Decomposition and Abstraction),Recursion, Some Programs

FUNCTION

A function is a block of code which only runs when it is called.

You can pass data, known as parameters, into a function.

A function can return data as a result.

Examples:

```python
def my_function():
  print("Hello from a function")

def my_function(fname, lname):
  print(fname + " " + lname)

def my_function(x):
  return 5 * x, 5 + x
```

PACKAGES/ MODULES

A Python may contain several classes, functions, variables, etc. whereas a Python package can contains several module. In simpler terms a package is folder that contains various modules as files.

```
stcet
|
|
---__init__.py
|
|
---module_1.py
|
|
   ---module_2.py
```

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EXERCISE 1

Print All Integers That Aren't Divisible by Either 2 or 3 and Lie between 1 and 50.

Take an input from a user and do it in the minimum lines of code.

EXERCISE 3

FIbonacci Using Recursion

0,1,1,2,3,5,8…….

EXERCISE 4

Tower of Hanoi Problem

Using Recursion

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Resonate Ideas, Overreach Limits

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