**PYTHON CHEAT SHEET**

* List in python
* list1 = [1, 2, 3, "Next", [4, 5]]
* print(list1)

O/p

[1, 2, 3, 'Next', [4, 5]]

* Tuple in Python
* tuple1 = (1, 2, 3, "Next", (4, 5))
* print(tuple1)

O/p

(1, 2, 3, 'Next', (4, 5))

* List Vs Tuple  
  List is mutable, means we can change the data present inside

But tuple is immutable means we cannot change the data present inside  
  
  
list1 = [1, 2, 3, "Next", [4, 5]]

print(list1)

list1[2] = "Hello World"

print(list1)

tuple1 = (1, 2, 3, "Next", (4, 5))

print(tuple1)

tuple1[2] = "Hello World"

print(tuple1)

* O/P
* [1, 2, 3, 'Next', [4, 5]]
* [1, 2, 'Hello World', 'Next', [4, 5]]
* (1, 2, 3, 'Next', (4, 5))
* Traceback (most recent call last):
* File "c:\git\Code\_With\_Harry\_Python\day2\data\_types.py", line 7, in <module>
* tuple1[2] = "Hello World"
* TypeError: 'tuple' object does not support item assignment
* Dict:
* A combination of key and value pairs
* IN PYTHON EVERYTHING IS AN OBJECT
* **% and // in Python  
    
  % is modulus operator like 15%6 is 3**

**// is floor division operator like 15//6 is 2**

* Exponential Opertor

2\*\*3 = 8

* Code to take input from user
* # Prompt the user to enter the first number
* first\_number = float(input("Enter the first number: "))
* # Prompt the user to enter the second number
* second\_number = float(input("Enter the second number: "))
* # Print the entered numbers
* print(f"The first number is: {first\_number}")
* print(f"The second number is: {second\_number}")

If you have multiple lines to be printed in a string, then you can use three singlw/ double quotes  
  
# how to print 'He said, "I want to eat an apple".'

print("\'He said, \"I want to eat an apple\".'")

a = '''

Hello all

My name is sapna

And i welcome you to day 3 of 100 days of coding in python

'''

print(a)

O/P  
  
'He said, "I want to eat an apple".'

Hello all

My name is sapna

And i welcome you to day 3 of 100 days of coding in python  
  
String indexing  
  
sapna = "Hello"

print(sapna[0])

print(sapna[1])

print(sapna[2])

print(sapna[3])

O/P

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o  
  
Lopping through a string  
  
sapna = "Hello World"

for num in sapna:

    print(num)

O/p

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Slicing operation in strings  
  
names = "Sapna, Tanmay, Tanisha"

fruit = "Mango"

print(f"The length of the string is : {len(names)}")

#slicing operations

print(names[0:5])

print(names[1:5])

print(names[1:]) #Then it will take end element as len(names)

print(names[:5]) #Then it is going to start from 0 itself

print(names[:]) #Then it is going to start from 0 itself and it will take end element as len(names)

print(names[:-1])  #Then the code will manipulate it as names[: len(names) - 1] len is 22 so 22-1 is 21 , so it will go from 0 to last but 1 element

print(names[18 : -1])   #from 18 to 21

print(fruit[-3 : -1]) #This will be manipulated as names[len(fruit)-3 : len(fruit)-1] 2:4

O/P  
  
The length of the string is : 22

Sapna

apna

apna, Tanmay, Tanisha

Sapna

Sapna, Tanmay, Tanisha

Sapna, Tanmay, Tanish

ish

ng