

# Python Basic

1. Write a program to demonstrate different number datatypes and arithmetic operations (addition, subtraction, multiplication, division, and exponent) in python
2. Write a program to implement all the usual operators for Boolean logic in python
3. Write a program to perform certain operations on strings (print a string, concatenation of two strings, capitalize a string, convert a string to uppercase, right-justify, centre a string, replace all instances of one substring with another, accessing substring from a given string)
4. Write a program to create a list with different data types, access elements of lists, slicing, append and remove elements from list
5. Write a program to create a dictionary with different data types, access elements of dictionary, add and remove elements from dictionary
6. Write a program to create a set with different data types, check for an element, add and remove elements from the set
7. Write a program to create a tuple with different data types, create a dictionary with tuple keys
8. Write a program to print the sign of number
9. Using a conditional, write the relu function defined as follows
10. (a) Write a python program to print prim numbers less than 20  
(b) Write a python program to find factorial of a number using recursion  
(c) Write a program that inputs a text file. The program should print all the unique words in the file in alphabetical order.
11. Write a python program to square each element of a list using list comprehension, and of a dictionary using dictionary comprehension