

Python Programs

1. Examines three variables x, y, z. prints the largest odd number among them. If none of them are odd, it should print message to that effect.
2. Print the largest odd number from 10 inputs entered by the user. If not odd number was entered, it should print message to that effect.
3. Checks whether the given number is perfect cube or not using loop.
4. Asks the user to enter an integer and print two integers, root and pwr, such that $0 < \text{pwr} < 6$ and root^{pwr} is equal to the integer entered by the user. If no such pair exists, it should print message to that effect.
5. Let S be a string that contains S='1.23,2.4,3.123'. Prints the sum of the numbers in S.
6. Write a python program that prints the alphabet pattern 'W'.
7. Function that finds the decimal equivalent of the binary numbers 10011?
8. Function that finds the equivalent Hexa-decimal code and octal code for the decimal number 191.
9. Function isln that accepts two strings as arguments and returns True if either string occurs anywhere in the other, and False otherwise. Hint: use the built-in str operation in.
10. Implement using both iterative as well as recursion method:
 - Factorial,
 - Fibonacci series,
 - Whether a string is a palindrome or not?
 - Counts the number of occurrences of the character in the given string.
11. Use Global variable to determine computation of fib(8). How many times does it compute the value fib(2)?
12. Script that reads a file and prints its contents on screen.
13. Script that writes the content of file as user provides its content on output screen.
14. Script to append data to an existing file 'python.py'. Read data to be appended from the user. Then display the contents of entire file.
15. Program to get command line arguments (name & path of the script, number of arguments) passed to the script.
16. Script to know the current working directory and to print all contents of the current directory. Now change the program to display the contents of only 'mysub' directory available in current directory?
17. Program that uses tuples to determine all common factors between two numbers and print their sum. Also print common factors that have minimum and maximum value.

18. Do various list operations.
19. Script to generate and print dictionary that contains a number (between 1 and n) in the form (x, x*x). Sample Dictionary(n=5): Expected Output: {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}.
20. Python class which has two methods get_String and print_String and print the string in upper case.
21. Python class to find validity of a string of parenthesis, '(', ')', '{', '}', '[' and ']'. These brackets must be close in the correct order, for example "()" and "()[]{}" are valid but "[)", "({[])" and "{{{" are invalid.
22. Program in which Maruti and Santro sub classes implement the abstract methods of the super class Car.
23. Create a class student. Create suitable methods for reading and printing member variables.
Program to overload '==' operator to print the details of students having same marks.
24. Write a python program for sequential search.
25. Program for binary search for an ordered list.
26. Program to sort list of elements using selection sort algorithm.
27. Program to sort a list of elements using the merge sort algorithm.
28. Program to arrange the characters of a given string 'welcome' in an alphabetical order using insertion sort algorithm.
29. Program to retrieve strings starting with m and having 5 characters.
30. Program that finds a number from following dictionary Dict1 with a name starts with J and surname starts with Nue using regular expression method.
Dict1 = {"James hallow":92948489, "James Crew":65783883, "Joe Nami":48825929, "Han Nue":29948585, "Joe Nue":4848399999, "James Anderson":28949494}
31. Program to retrieve name and date of birth (mm-dd-yyyy) of students from a given file student.txt.
32. Draw the pie chart for the following data using pylab: KFC 20%, PIZZA HUT: 35%, MAC-DONALDS 30%, DOMINOS: 15%.
33. Implement producer consumer problem using the concept of synchronization in python.
34. Implement Socket Programming in python in which clients passes a message to server program and server program returns the message with all its characters in upper case.
35. Program to create a TCP/IP client-server chat application.
36. Implement any one classical ciphers using python.
37. Program to display a label upon clicking a push button.
38. A GUI program to create three push buttons using tkinter. Changing colors when buttons clicked.

39. Draw graphics of different shape like square, rectangle and circle using Turtle in python.
40. Create following regular polygons (regular means all sides the same lengths, all angles the same) using for loop in turtle: An equilateral triangle, A square, A hexagon, An octagon.