Python Lab Assignment 2

1. Write a program that asks a user for a username and password. If password is "cdac" and does not contain username print "login successful" otherwise "login failure"

2. Write a program to input 2 strings. If string1 is contained in string2 ,create a third string with the first four characters of string2 added with word "cdac"

3. Write a program that inputs a string that contains a decimal number and prints out the decimal part of the number(Do not convert the string to number)

4. Write a program that takes a string with multiple words and then capitalizes the first letter of each word and forms a new string out of it

5. Write a program that reads a string and prints a string that capitalizes every other letter in the string (eg: python becomes pYtHoN)

6. Write a program that asks the user for a string and creates a

new string that doubles each character of the original string(eg: cdac becomes ccddaacc)

7. Write a program that inputs a line of text and prints its each word in a separate line along with its length

8. Write a program which takes one string and a character. The function should create a new string after deleting all the occurrences of the character from the string

9. Write a program that reads a sentence and print the string with lowercase characters converted to uppercase and viceversa

10. Write a program that does the following:

a. Prompt the user for a string

b. Extract all the digits from the string

c. If there are digits

        a. sum the collected digits together

        b. print out: the original string , the digits, the sum of the

digits d. If there are no digits

        a. print the original string and a message "has no digits"

11. Extract two list slices out of a given list of numbers. Display and print the sum of elements of the first slice which contains every other element of the list between indexes 5 to 15. Program should also display the average of elements in the second list slice that contains every fourth element of the list.

12. Write a program that inputs a list, replicates it twice and then prints the sorted list both in ascending and descending order

13. Write a program to calculate the mean of a list of numbers

14. Write a program to check if the max element of the list lies in the first half or the second half

15. Write a program to input 2 lists and display the maximum element from the elements of both the list, along with its index in the list

16. Given 2 lists, write a program that prints "overlapped" if they have at least one member in common otherwise "not overlapped"

17. Write a program to input a list and 2 numbers m and n. Then create a list from those elements which are divisible by both m and n

18. Write a program to demonstrate the number guess game.

(You v/s Random module)

19. Write a program to print the multiplication table of a number

and read the number from the console.

20. Write a program to calculate and print the sums of even and odd integers of the first n natural numbers

21. Write a program to input a number and test whether it is prime or not

22. Write a program that prints the prime numbers from 15 through 25

23. Write a program to print the first 20 elements of the Fibonacci series

24. Write a program to reverse a number

25. Write a program to generate divisors of a number

26. Write a program to calculate the BMI of a person after inputting the weight in kgs and height in meters and then print the Nutritional Status as per the following table

Nutritional Status BMI

Underweight <18.5

Normal 18.5-24.9

Overweight 25-29.9

Obese >=30

BMI =weight / (height *height)

28. Write a program to check whether a number is an Armstrong number or not.

29. Write a python program to demonstrate the common network connection errors and display its reasons, get the error code from the user.

30. Write a program to take n (n > 20) as an input from the user. Print numbers from 11 to n. If the number is a multiple of 3 print "Multiple of 3",if it is a multiple of 7 print "Multiple of 7", if it is a multiple of both, print multiple of both 3 and 7