Date:- 18-09-2016

Today's task: Write a program to take input as X and find all the combinations of a given input digit at first place of X. Eg. X=125, if digit=2 then, output is, 215, 251. Eg. X=7438, if digit=3 then, output is, 3748, 3784, 3478, 3487, 3874, 3847...

Second task: Write a program to take input as String 'S' and remove nth occurrence of the given input character 'C', Eg. Input is :S= mississippi, C= I, n = 3, then output is : mississippi. If, C=s, n=4, then output is: missisippi

Third task: Write a program to take input as integer array A, and print all the elements which contains the given input digit D[0-9]. Eg. [12, 34, 48, 51, 72, 83, 28, 13, 65, 26, 33], digit=2, then output is: 12, 72, 28, 26 and if digit=3, then 34, 83, 13, 33

Date:- 19-09-2016

Today tasks: 1) Write a program to take input as String sentence, and reverse the even position words and odd position words in the sentence. Eg. Input: he is good boy, Output: eh is doog boy, Output: he si good yob

- 2) Write a program to take input as number X, and generate all even numbers and odd numbers from X. Eg. X= 124, then evens [124, 142, 214, 412], odds [241, 421].
- 3) Write a program to take input as integer array, and pick all the anagram numbers. Eg. Input: [114, 84, 148, 141, 481, 198, 48, 411, 289, 320, 45, 121, 302] then Output is: 114, 141 and 114, 411 and 84, 48 and 148, 481 and 320, 302 etc are anagram numbers.

Date: 20-09-2016

Todays tasks: 1) Write a program to take input as integer X and get the nearest prime number which is backward or forward from it. If distance is same from either sides then print both prime numbers. Eg. X= 14, then output is 13. If X= 6, then output is 5 and 7

- 2) Write a program to take input as String S, then find replace all the vowel characters with next vowel character. Eg. S= teaching then output: tiechong
- 3) Write a program to take input as array of floating point numbers and and pick out all the numbers which have same precision length into precision sets. Eg. [1.1, 2.45, 34.85, 113.1, 12.492, 2.28, 45.9, 12.881] then output is: [1.1, 113.1, 45.9], [2.45, 34.85, 2.28], [12.492, 12.881]

Date:- 21-09-2016

Todays task: 1) Write a program to take input as String sentence and sort the sentence in sorting order according to thier highest consonant count, is same count occurs print in order in which they have appeared. Eg. I love lendi college. Then: college lendi love I

- 2) Write a program to take input as array of numbers of +ve,-ve and including zeroes, and arrange numbers in a order in which the frequency count of +ves,-ves and zeroes. Eg. [-2, 12, -34, 0, 11, 24, 0, -65, -1, 14, 0, 18, 25] then, the order is: 12, 11, 24, 14, 18, 25, -2, -34, -65, -1, 0, 0, 0
- 3) Write a program to take input as number and check the number is a Strong number or not. Eg. 145= 1!+4!+5!= 145.

Date: 22-09-2016

Todays tasks: Task-1: Write a program to take input as number and get the nearest perfect square to it, from either of the sides. Eg. N= 189 then, output is: 196, if N= 36, then output is: 25.

Task-2: Write a program to take input as string and sort characters by removing all duplicates except last occurrence of that character and print. Eg. S= engineering then, output is: ering, if S= mississippi, then output is: mspi.

Task-3: Write a program to take input as integer array and pick the number between two boundary digits of each number. if not print the same number Eg.

[7, 214, 13, 3589, 2, 387, 43871, 19, 954, 1229] then output is [7, 1, 13, 58, 2, 8, 387, 19, 5, 22].

Date: 23-09-2016

1) Write a program to take input as string and find the longest possible even palindrome (length of palindrome is even) from it.

Eg:

Input: abcicbbcdefggfed

Output: defggfed (length is 8)

Available palindromes are

- 1) bcicb has odd length
- 2) cbbc even length
- 3) defggfed longest palindrome with even length
- 2) Write a program to take input as array of integers, find the closest pair with a sum which equals to a given integer. For example, for $A = \{1, 7, 5, 3, 9, 6\}$ and N = 10. The pairs are $\{7, 3\}$, $\{1,9\}$. But the closest pair is $\{7,3\}$, because difference between them is 4, than difference b/w 1,9 is 8.
- 3) Write a program to take input as positive integer number N and return the minimum number K, such that N can be represented as K integer squares.

Example

$$15 --> 4 (15 = 3^2 + 2^2 + 1^2 + 1^2)$$

45 --> ?

Date:-24-09-2016

Today tasks: 1) Write a program to take input as number N, find out the biggest even and odd number from N. Eg. If N=2537, then even is 7532, odd is 7523

- 2) Write a program to take input as String S contains combination of capital and small letters, and print string in alphabetical order irrespective of case. Eg. S= KaRtHeEk then output is: aeEHKkRt, if S= adAhDpHF then output is: aAdDFhHp
- 3) Write a program to take input as String contains combination of numbers and brackets (), [], {}. Find out the sum of numbers between open and close brackets matches. Rules are: 1) Opposite kind of brackets to be matched(), [], {}. 2) Sum of numbers should be seperate for different brackets. 3) Space is seperated between numbers 4) If any symbol other than bracket is treated as number 0.

Example. 1(2 3 [8 1] 5 { 9 2 }) then, ()- 30, []- 9, { }- 11

Example: [4 9 (6 1 { 13) 8 } 5 [then, ()- 20, {}- 21, []-0

Date:-25-09-2016

Today tasks: 1) There are 2 arrays of integers. You have to add the those integers and keep it in 3rd array there is one condition, if the sum is a 2 digit number, split that number into single digit and other condition is if any of the array integer is left then print that number

I/P:

int[] a = {1,2,3,4,5,6}

 $int[] b = \{2,3,4,5,6,7,8\}$

o/p:

{3,5,7,9,1,1,1,3,8}

Task-2: Given a string having a number:

"625626628"

Here the substrings are in consecutive order except for 1 substring which is missing. Find the missing substring.

Test cases:

"1235678" -> 4 is missing

"9979981000" -> 999 is missing

"624625627" -> 626 is missing

Task-3: Find all the Leaders in an Array.

An Array element is Leader if all the elements following that array element is lesser than or equal to it.

Ex: Arr = {13, 17, 5, 4, 6, 2}

O/p: 17, 6, 2