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**COURSE CODE; CSA0836**

**PYTHON TEST 2 - 15/09/2022**

Valid Palindrome A phrase is a palindrome if, after converting all uppercase letters into lowercase letters and removing all non-alphanumeric characters, it reads the same forward and backward. Alphanumeric characters include letters and numbers. Given a string s, return true if it is a palindrome, or false otherwise.

**def ispalindrome(s):**

**return s==s[::-1]**

**s=input("Enter Your String : ")**

**ans= ispalindrome(s)**

**if ans:**

**print("True , Plaindrome")**

**else:**

**print(" False , Not A Plaindrome")**

Roman to Integer Roman numerals are represented by seven different symbols: I, V, X, L, C, D and M. Symbol Value I 1 V 5 X 10 L 50 C 100 D 500 M 1000

**def value(r):**

**if (r == 'I'):**

**return 1**

**if (r == 'V'):**

**return 5**

**if (r == 'X'):**

**return 10**

**if (r == 'L'):**

**return 50**

**if (r == 'C'):**

**return 500**

**if (r == 'D'):**

**return 100**

**if (r == 'M'):**

**return 1000**

**return -1**

**def romanToDecimal(str):**

**res = 0**

**i = 0**

**while (i < len(str)):**

**s1 = value(str[i])**

**if (i + 1 < len(str)):**

**s2 = value(str[i + 1])**

**if (s1 >= s2):**

**res = res + s1**

**i = i + 1**

**else:**

**res = res + s2 - s1**

**i = i + 2**

**else:**

**res = res + s1**

**i = i + 1**

**return res**

**a=(input("Enter Roman Symbol :"))**

**print("Integer form of Roman Numeral is"),**

**print(romanToDecimal(a))**

**3q matrix Multiplication**

**r=int(input("Enter The Number of Rows : "))**

**c=int(input("Enter The Number of columns : "))**

**print("Enter the number of elements in matrix1 : ")**

**mat1=[[int(input())for i in range(c)]for i in range(r)]**

**print("First Matrix is : ")**

**for n in mat1:**

**print(n)**

**print("Enter the number of elements in matrix2 : ")**

**mat2=[[int(input())for i in range(c)]for i in range(r)]**

**print("Second Matrix is : ")**

**for n in mat2:**

**print(n)**

**result=[[0 for i in range(c)]for i in range(r)]**

**for i in range(len(mat1)):**

**for j in range(len(mat2[0])):**

**for k in range(len(mat2)):**

**result[i][j]+=mat1[i][k]\*mat2[k][j]**

**print("Product of Two Matrices is :")**

**for r in result:**

**print(r)**