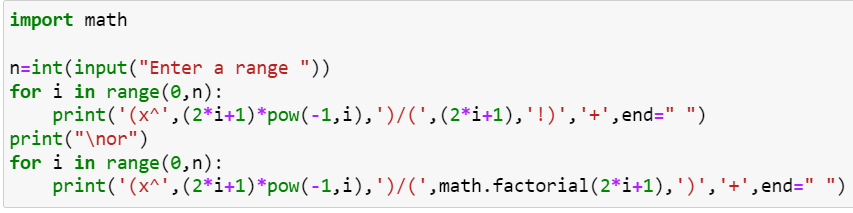
Assignment 2: Programming in Python CST 362

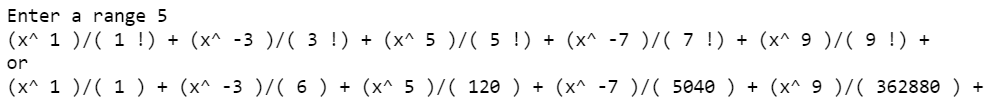
Name: **Alby Thekkedan Roll No 8 Class CS6B**

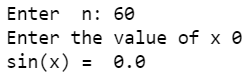
KTU-ID: **MDL20CS129**

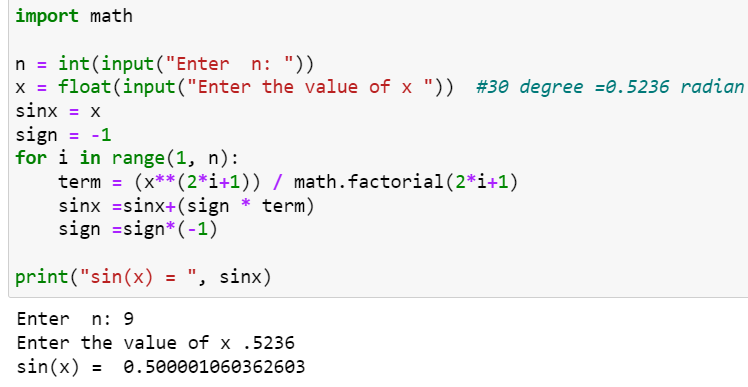
Date of submission: 06-March-2023

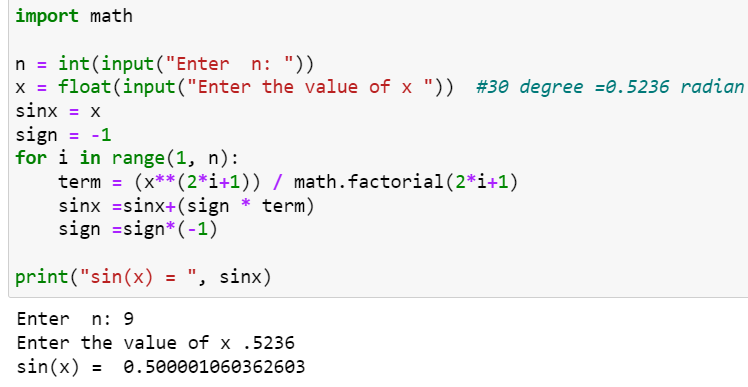
**Learning outcome: Learn to use loops, nested loops and strings**

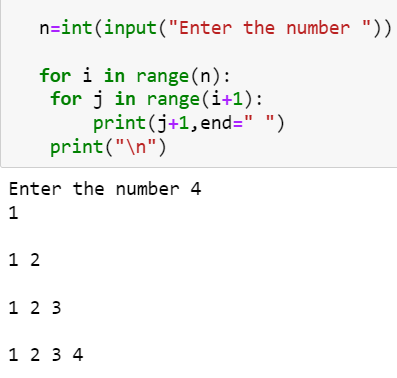
1. Print the sin series x-x^3/3!+x^5/5!. x^n/n! ( read n)

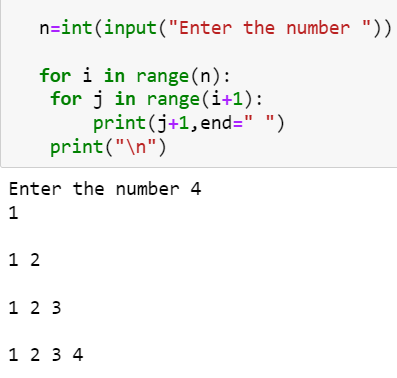


1.  In the above program read the value x and find the sum of the series.



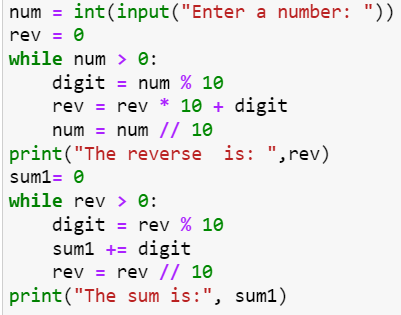


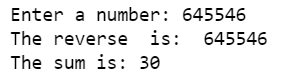
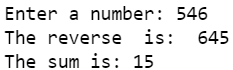
1. 
2. The pyramid is given for n=4 do this for any n

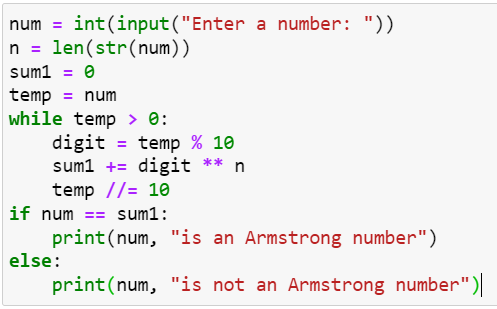
1 2

1 2 3

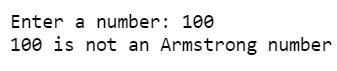
1 2 3 4

1. Reverse a number and also find the sum of the digits Eg: i/p : 546 o/p:reverse=645 sum=15

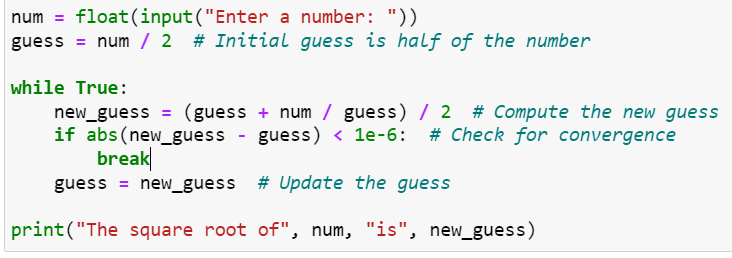


1. **Armstrong numbers**



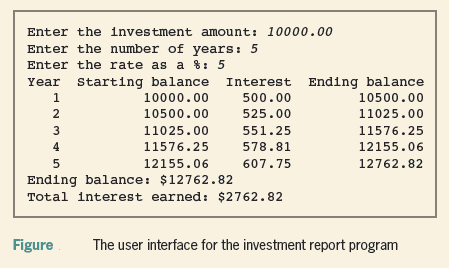


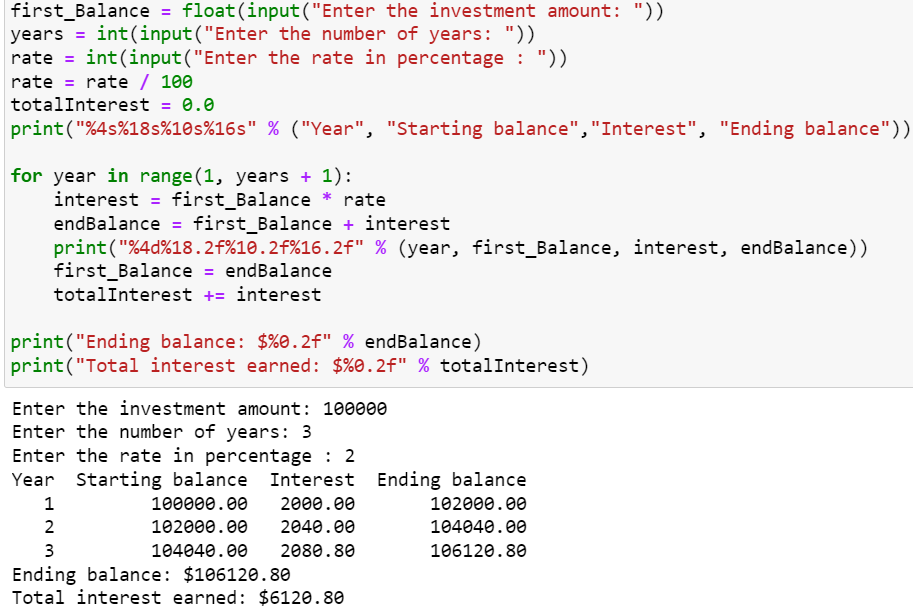
1. Find the square root of a number using Newton’s method

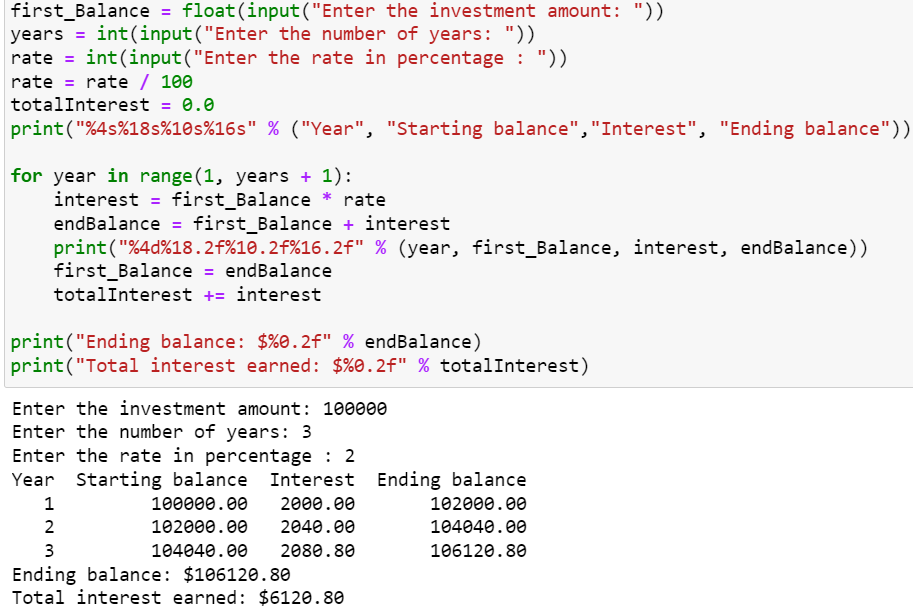




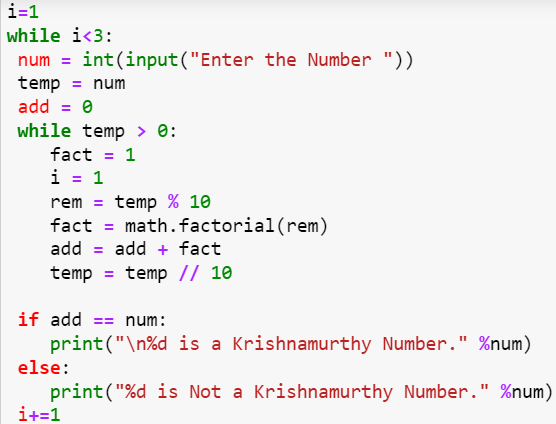
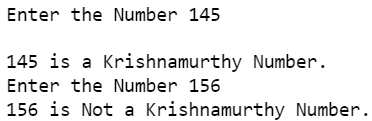
1. Write a program that computes an investment report.



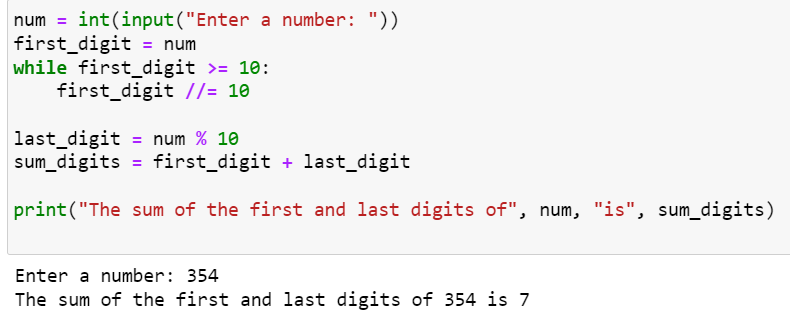


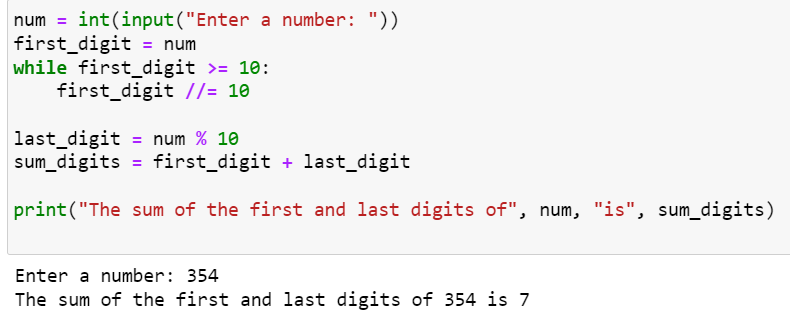


1. Check whether the given number is a Krishnamurti number (.Use factorial () function from math) For example: 145 = 1! + 4! + 5! = 1 + 24 + 120 = 145 is a Krishnamurthy Number

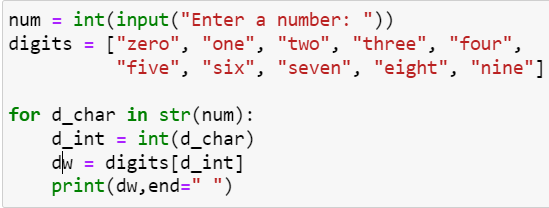


1. Find the sum of the first and last digit of a number( i/p:354 o/p=3+4=7)

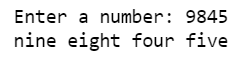




1. Input a number and print it in words ( i/p:345 o/p: Three Four Five)

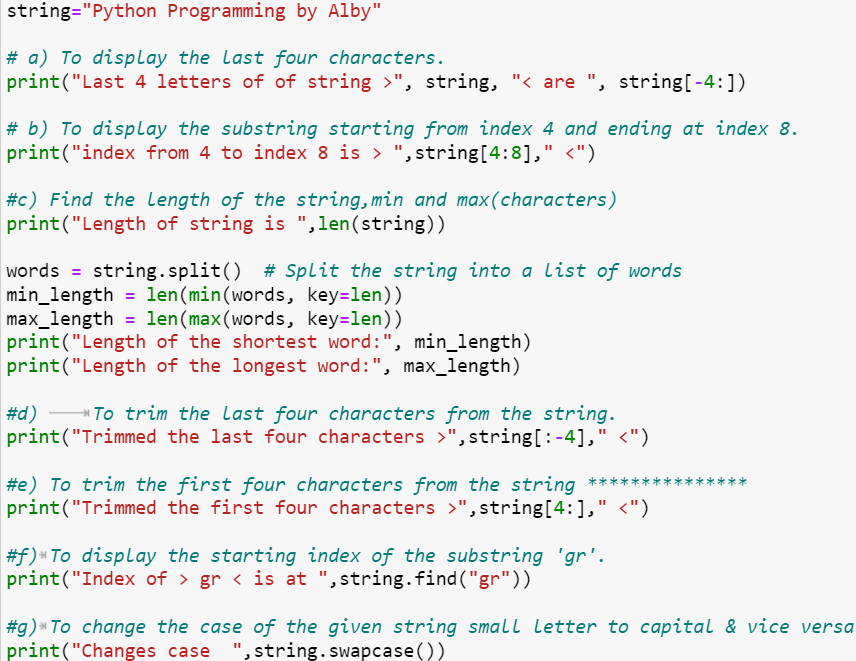


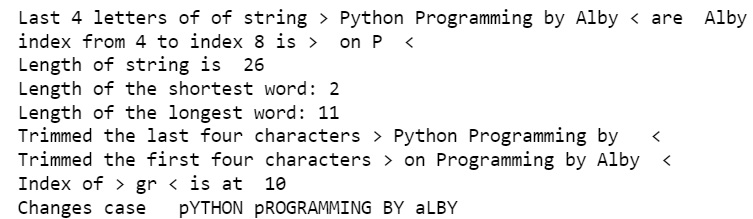


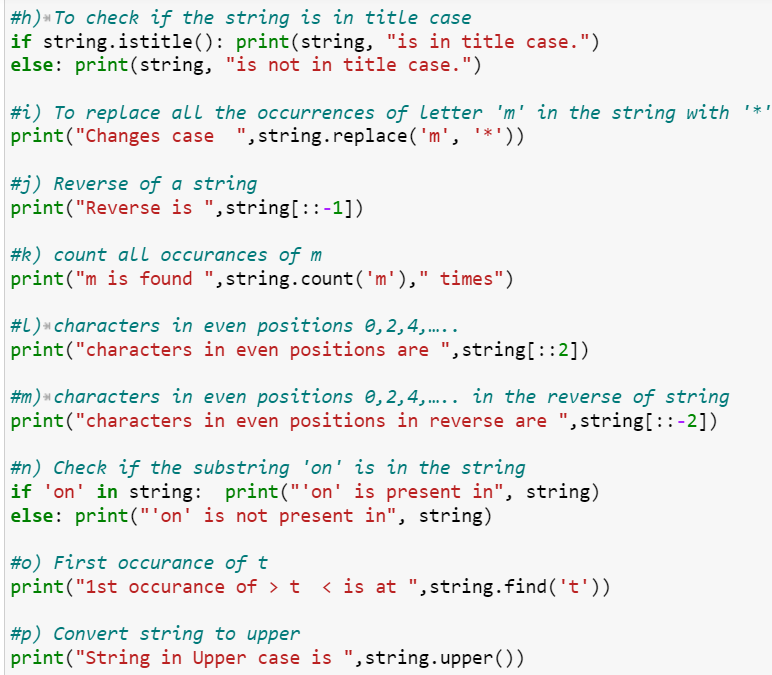


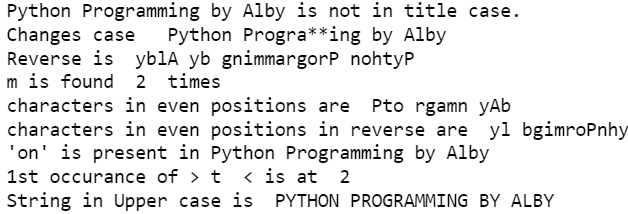
**Strings**

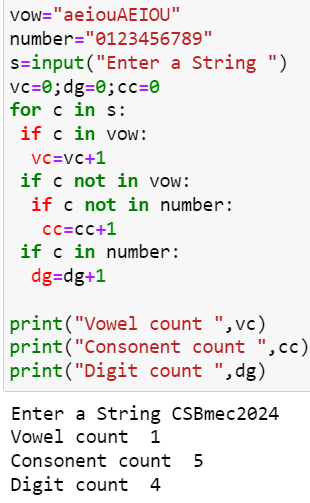
**Outcome: Learn String Indexing and slicing, programming with strings**

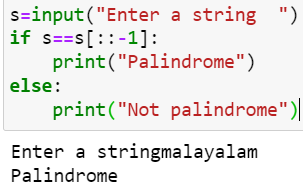
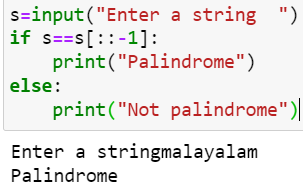
**Consider the string str="Python Programming by Alby" .Write statements in python to implement the following**



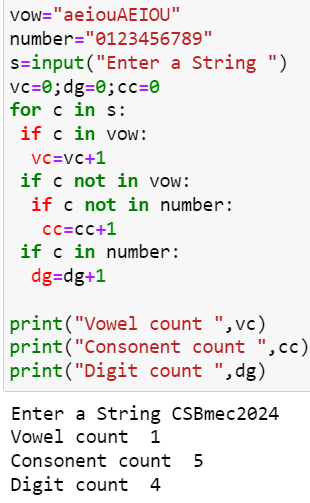




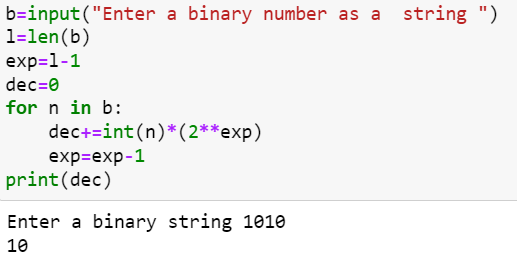
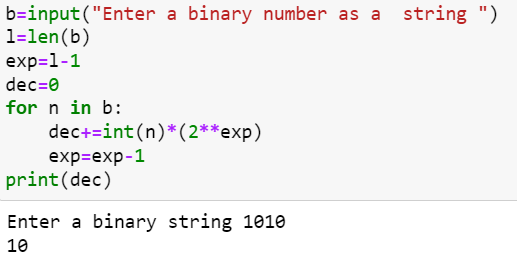
2. Write a program to check whether the given string is palindrome or not.



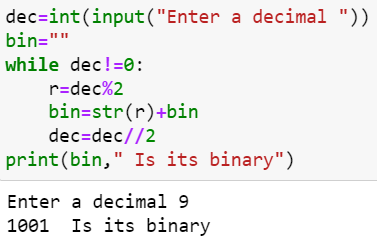
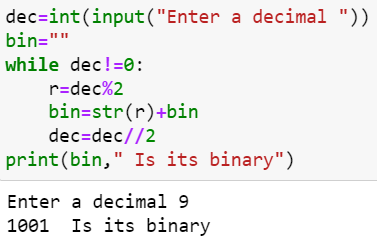
3. Count the vowels, digits, consonents, spaces in a string.



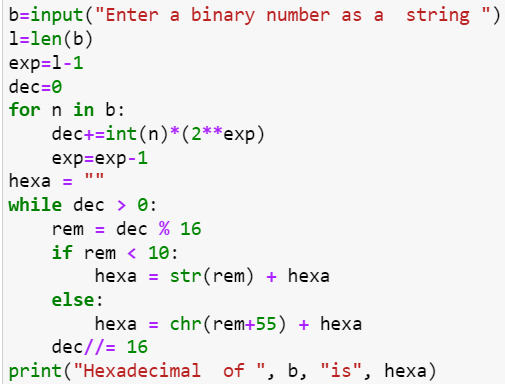
4. Read a binary number as a string and find its corresponding decimal



5. Read a decimal number and find its binary.( Hint: divide by 2 and append the reminder to a string)



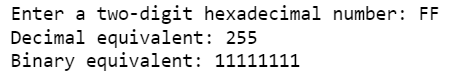
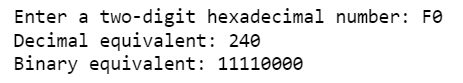
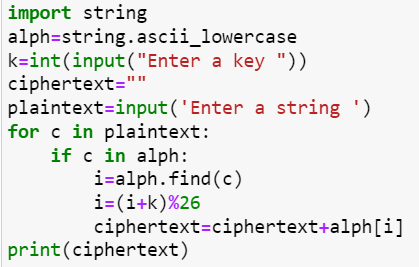
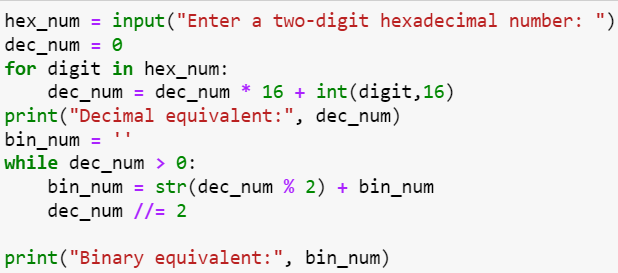


6. Read an 8 bit binary number and print the hex equivalent

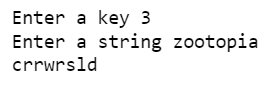
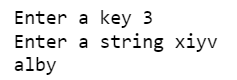




7.Read a two digit hex number and print the binary and decimal equivalent.

8. **Encrypt a string using the shift cipher( key=3 Ceaser cipher)**



9.Write a Python program to check the validity of a password given by the user. The Password should satisfy the following criteria: Contains at least one letter between a and z, number between 0 and 9,letter between A and Z, special character from $, #, @ 5.Minimum length of password: 8

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