Programming in Python CST 362
Assignment 6

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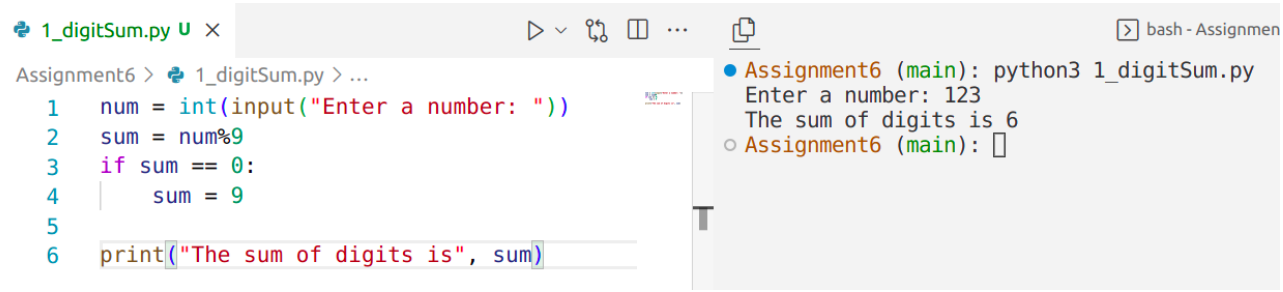
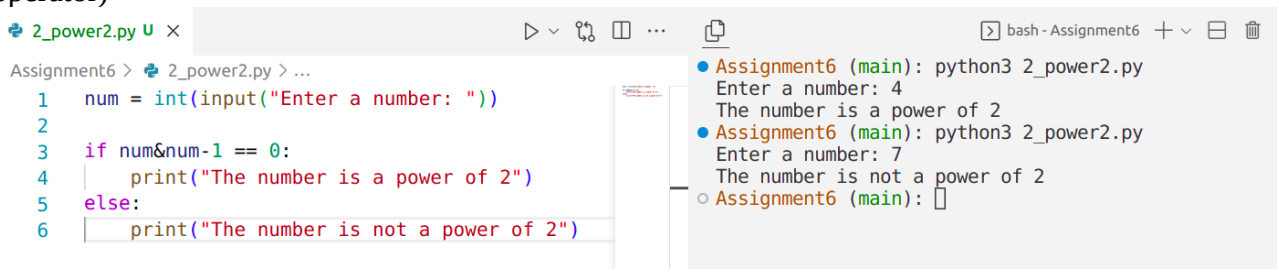
CS6A
44

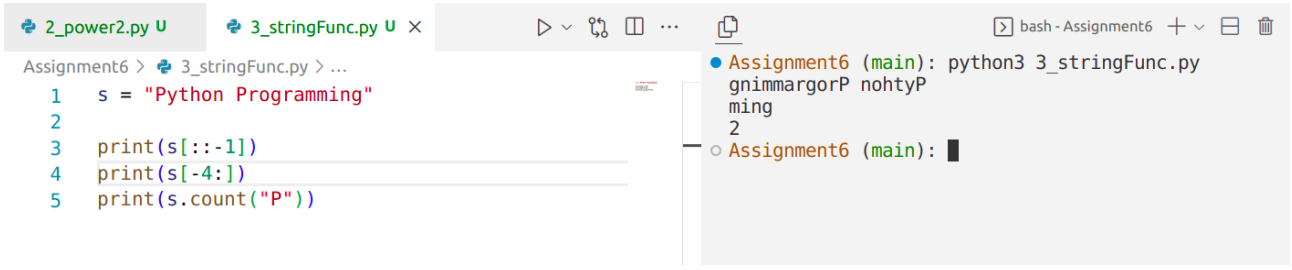
1. Write a Python script to find the sum of digits of a number adding repeatedly to single digit.Eg:197= 1+9+7=17=1+7=8.



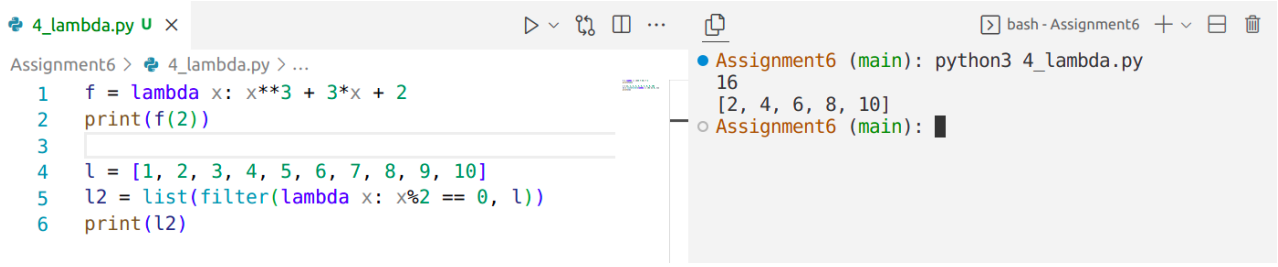
2. Write an efficient Python program to check whether the given number is power of 2.(Use bitwise operator)



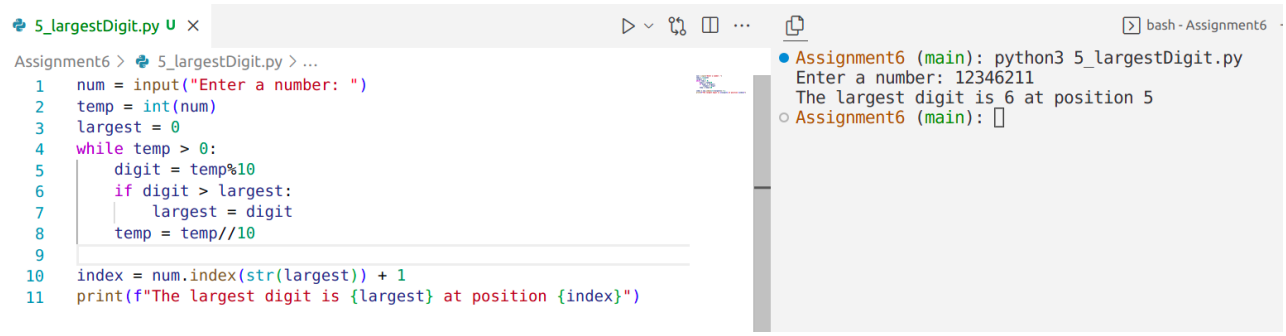
3. Let s=”Python Programming” be a string. Write commands for the following i)reverse the string ii)print last 4 characters iii)count of ‘P’



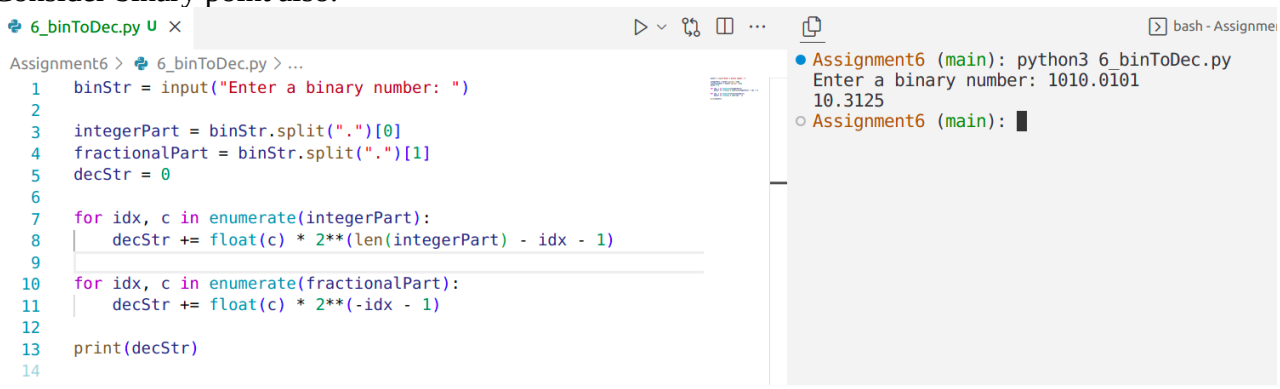
4. Write lambda functions for the following i)F(x)=x**3+3*x +2 ii)Filter even numbers from a list



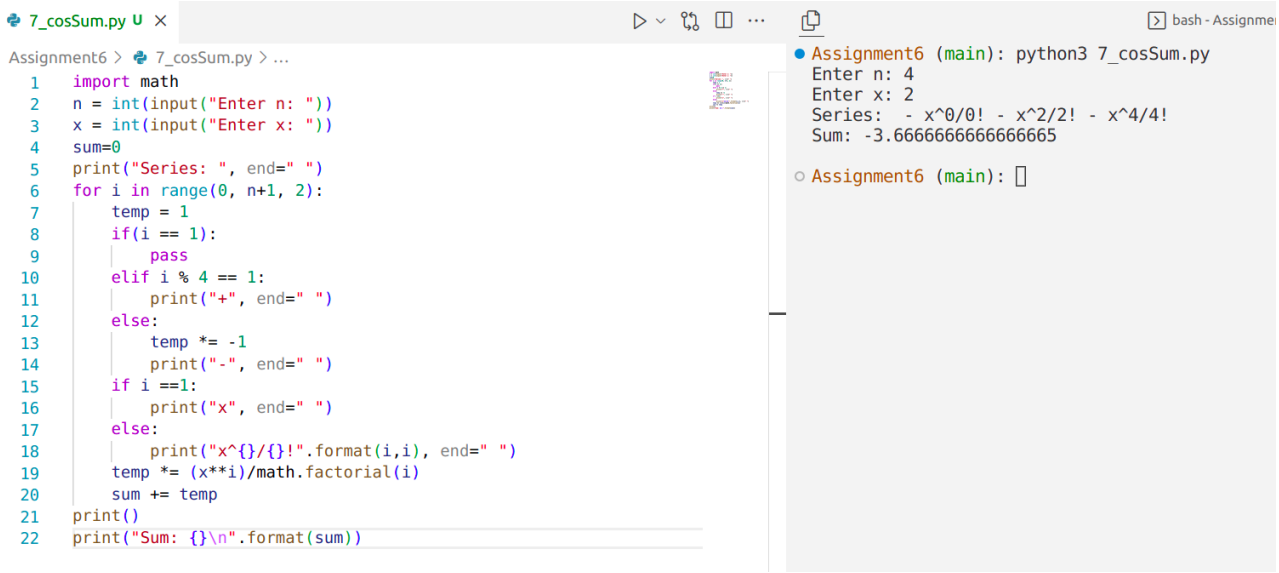
5. Write a Python program to find the largest digit in a number and also print the position (assume non repeating digits)



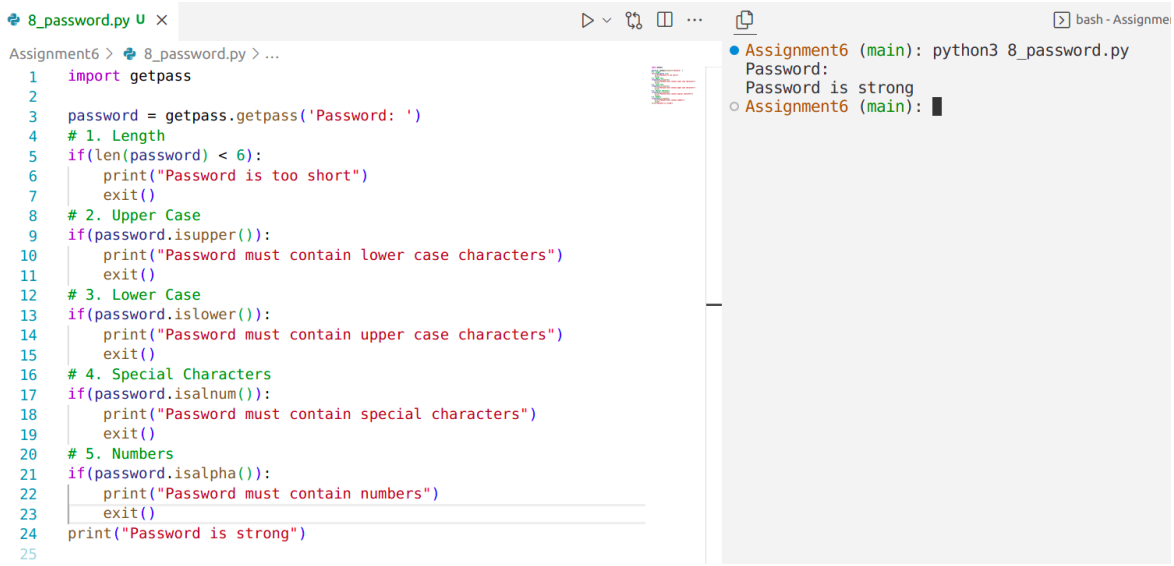
6. Write a Python program to read a binary number and find the equivalent decimal number. Consider binary point also.



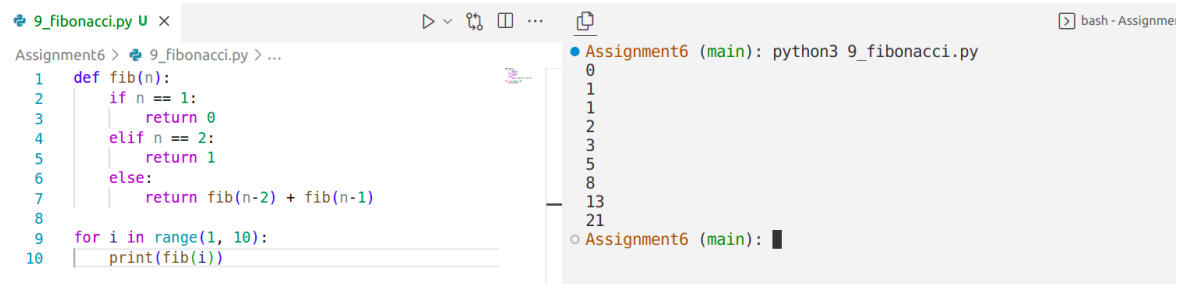
7. Write a Python program to find the value of cos(x) up to n terms using the series 1-x^2/2 +x^4/4!-x^6/6!.....n. Use your own factorial function.



8. Write a Python program to check the validity of a password given by the user. The Password should satisfy the following criteria: 1. Contains at least one letter between a and z 2. Contains at least one number between 0 and 9 3. Contains at least one letter between A and Z 4. Contains at least one special character from $, #, @ 5. Minimum length of password: 6



9. Write a recursive function in Python to generate n th Fibonacci number. Use this function to print the Fibonacci series.



10. Read a text file “sample.txt” and encrypt this file using the shift cipher(Use suitable key).Save the encrypted file in “enc.txt”