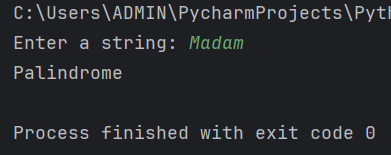
Python Journal

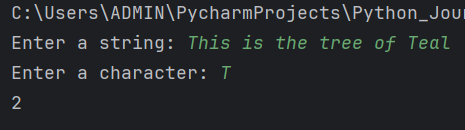
Q1) Write a program to determine if a given string is palindrome or not using combination of positive and negative indexing. Take the string as an input from the user.

Solution: string = input("Enter a string: ") # takes input from the userstring = string.lower() # converts the entered input into lowercaseisPalindrome = True # flag variable initially set to True# we take half the length of input since we need to match first half with second half  
length = len(string) // 2 for i in range(length):# if the first and second half don't match, we make isPalindrome to False, thus indicating not a palindrome  
 if string[i] != string[-(i + 1)]: isPalindrome = Falseif isPalindrome: print("Palindrome")else: print("Not a palindrome")

Output:

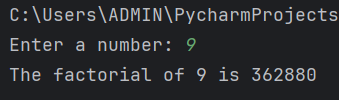
Q2) Without using count() demonstrate the use of for loop to determine the number of occurences of a given character in a string. Take the string and character from the user.

Solution: string = input("Enter a string: ") # takes input from the userch = input("Enter a character: ")count = 0for i in string:  
# if the occurence of character matches the index, we increment the count if i == ch:   
 count += 1print(count)

Output:

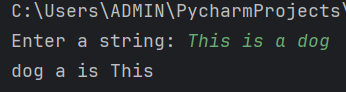
Q3) Without using readymade methods, write a program to find factorial of a given number. Take the number from the user.

Solution: n = int(input("Enter a number: ")) # takes input from the userfact = 1for i in range(1, n+1): fact = fact \* iprint(f"The factorial of {n} is {fact}")

Output:

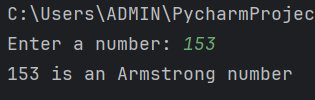
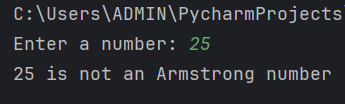
Q4) Without using any readymade methods, write a program in Python to reverse the sequence of words in a given string. Take the string from the user.

Solution: s = input("Enter a string: ") # takes input from the user  
string = s.split() # splits the words and creates a list  
reverse\_str = string[::-1] # reverse the order of words using indexing  
output = ' '.join(reverse\_str) # joins all the reverse words  
print(output)

Output:

Q5) Without using any readymade methods, write a program in Python to check if the given number is an Armstrong number or not. Take the number from the user.

Solution: n = int(input("Enter a number: ")) # takes input from the usertemp = n # temporary variable which holds same value as the entered inputsum = 0rem = 0while n > 0: rem = n % 10 sum = sum + (rem \* rem \* rem) n = n // 10if sum == temp: print(f"{temp} is an Armstrong number")else: print(f"{temp} is not an Armstrong number")

Output: