PROJECT EULER PROBLEM 4 SOLUTION.

Hi, I’m Omoyeni Joshua and today I’ll be sharing my solution to Project Euler problem 4 question. But first, the question.

Question:

A palindromic number reads the same both ways. The largest palindrome made from the product of two 2-digit numbers is 9009 = 91 × 99. Find the largest palindrome made from the product of two 3-digit numbers.

My Solution:

palindrome=[]

for i in range(100,1000):

for j in range (100,1000):

result=i\*j

b=str(i\*j)

if b==b[::-1]:

palindrome.append(result)

print(max(palindrome))

Answer: 906609

Explanation:

On line 1, I set the list to empty [] as a starter.

Next, I set i and j in a for statement with the range(100-1000) because it was stated in the question to find the palindrome made from the product of two 3-digit numbers and the largest 3-digit numbers we have are 100,999. The syntax for range in Python is range(start,stop,step). The range() function returns a sequence of numbers starting from 0 and increments by 1(by default), and stops before a specified number.

Example:

x = range(1,6)

for n in x:

print(n)

The output will return: 1,2,3,4,5.

NOTE: The loop stopped before the specified stop number 6.

Next, I assigned the variables i and j with (result) as the variable name.

Also, I set b as the string (str) of the result – the product/multiplication of both variables.

I created an if statement stating that if the str of the result equals the reverse of the result then, the result should be added to the palindrome list set earlier. This is just to check if the result is a palindrome(a number that reads same both ways).

Finally, I print the largest palindrome made from the product of the two 3-digit numbers using the max() function-this returns the largest item in an iterable, and after running the program, I got 906609(a palindrome) as the answer.

THE END.