**Palindrome no**

n=int(input(**'enter a number'**)) *# n->242*rev=**0** *#rev=0*pal=n *# pal=242-----take a dulicate od n for final checking***while** n>**0**:  
 rev= rev\***10**+n%**10** *# rev=->0->2->24->242* n=n//**10** *# n= 24-> 2->0***if** rev != pal:  
 print(**'not a palindrome no'**)  
**else**:  
 print(**'it is palindrome'**)  
*#2%10=2  
#2//10=0*

output

enter a number>? 121

it is palindrome

**programme to check string is paliandrome**

*#---------------------- chking palindrome using function***def** pal(s):  
 *#str = input('Enter the string you want to chek : ')* chk = s.lower() *# convet the entered string to lower case fo checking* str1 = chk[::-**1**] *#------string slicing to get reverse of the string* **if** chk == str1:  
 print(**f'**{s} **Is PALINDROME'**)  
 **else**:  
 print(**'Not PALINDROME'**)  
  
p=input(**'Enter the string you want to chek : '**)  
pal(p)

Output

Enter the string you want to chek : >? malayalam

malayalam Is PALINDROME

***[::-1]*** *is the simplest and most efficient way to reverse a string in Python.*

[ This part reverses the string num\_str.

 [::-1] is a slicing operation in Python that creates a new string that is a reversed version of the original.

 Example: If num\_str is "121", then num\_str[::-1] would also be "121". If num\_str is "123", then num\_str[::-1] would be "321".}

3.

# Function to check if a number is a palindrome

def is\_palindrome(num ber):

# Convert the number to a string

num\_str = str(number)

# Check if the string is the same forwards and backwards

return num\_str == num\_str[::-1]

# Input number

num = int(input("Enter a number: "))

# Check and display result

if is\_palindrome(num):

print(f"{num} is a palindrome.")

else:

print(f"{num} is not a palindrome.")

***reversed string***

***1.***

*original\_string = "hello"*

*reversed\_string = original\_string[::-1]*

*print(reversed\_string)*

*# Output: "olleh*"

**2.**

**Using the reversed() Function:**

* The reversed() function returns an iterator that produces the characters of the string in reverse order. You can then join these characters into a new string.
* Syntax: reversed\_string = ''.join(reversed(original\_string))

original\_string = "hello"

reversed\_string = ''.join(reversed(original\_string))

print(reversed\_string)

# Output: "olleh"

**Using a Loop:**

* You can manually reverse a string by looping through it backwards and building a new string

original\_string = "hello"

reversed\_string = ' '

for i in original\_string:

reversed\_string = i + reversed\_string

print(reversed\_string) # Output: "olleh"

**palindrome no & string**

**def** palNo(n): *# defining a function PalNo to chek nois palindrome ot not* rev=**0** pal=n  
 **while** n>**0**:  
 rev= rev\***10**+n%**10** n=n//**10  
  
 if** rev != pal: *# checking the reversed no in rev is equal to the entered number n* print(**'not'**)  
 **else**:  
 print(**'it is palindrome'**)  
  
*# num=int(input('enter a number'))#user input  
# palNo(num)#calling fun palno  
  
  
#---------------------- chking palindrome using function***def** pal(s):  
 *#str = input('Enter the string you want to chek : ')* chk = s.lower() *# convet the entered string to lower case fo checking* str1 = chk[::-**1**] *#------string slicing to get reverse of the string* **if** chk == str1:  
 print(s, **'- Is PALINDROME'**)  
 **else**:  
 print(**'Not PALINDROME'**)  
  
*# p=input('Enter the string you want to chek : ')----user input  
# pal(p)*x= int(input(**"PALINDROME**\n **1.NUMBER**\n **2.SRTING** \n **Enter Your Choice :"** ))  
  
**if** x==**1**:  
 num = int(input(**'enter a number'**)) *# user input* palNo(num) *# calling fun palno***elif** (x==**2**):  
 p = input(**'Enter the string you want to chek : '**)  
 pal(p)  
**else**:  
 print(**"invalid input"**)  
output

PALINDROME

1.NUMBER

2.SRTING

Enter Your Choice :>? 1

enter a number>? 123

not

**palindrome using function**

*# n=int(input('enter a number'))***def** palNo(n): *# defining a function PalNo to chek nois palindrome ot not* rev=**0** pal=n  
 **while** n>**0**:  
 rev= rev\***10**+n%**10** n=n//**10  
  
 if** rev != pal: *# checking the reversed no in rev is equal to the entered number n* print(**'not'**)  
 **else**:  
 print(**'it is palindrome'**)  
  
num=int(input(**'enter a number'**))*#user input*palNo(num)*#calling fun palno*