

Worksheet – 1.2

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Section/Group: 809/A

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Subject Name: Programming in Python Lab

Subject Code: 20CSP-259

1. Aim/Overview of the practical:

- I. Python Program to check whether a given number is a palindrome.
- II. Python Program to check Whether entered number is Armstrong or Not?
- III. Python Program to Take three numbers from the user and print the greatest number

2. Task to be done/ Which logistics used:

- I. Check and print the palindrome number.
- II. Check and print the Armstrong number.
- III. Check and print greatest number.

3. Steps for experiment/practical/Code:

- I. Check and print the palindrome number.

Source Code:

```
n=int(input("Enter The Number: "))
temp=n
rev=0
while(n>0):
    dig=n%10
    rev=rev*10+dig
    n=n//10
if(temp==rev):
    print("The number is a palindrome!")
else:
    print("The number isn't a palindrome!")
```

II. Check and print the Armstrong number.

Source Code:

```
num = int(input("Please Enter the Number: "))
order = len(str(num))
sum = 0
temp = num

while temp > 0:
    digit = temp % 10
    sum += digit ** order
    temp //= 10

if num == sum:
    print(num,"is an Armstrong number")
else:
    print(num,"is not an Armstrong number")
```

III. Check and print greatest number.

Source Code:

```
num1 = int(input("Enter the 1st Number:"))
num2 = int(input("Enter the 2nd Number:"))
num3 = int(input("Enter the 3rd Number:"))

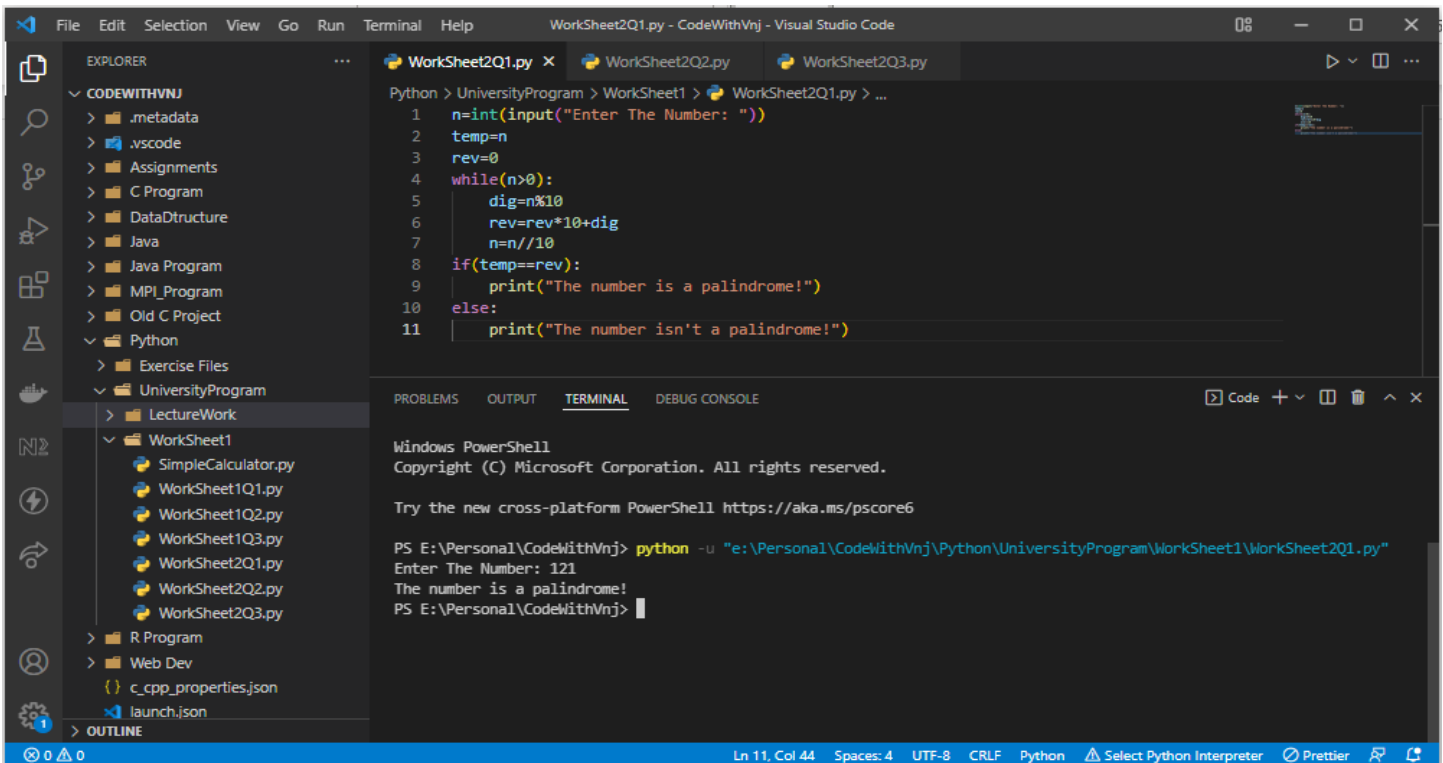
if (num1 >= num2) and (num1 >= num3):
    largest = num1
elif (num2 >= num1) and (num2 >= num3):
    largest = num2
else:
    largest = num3

print("The largest number is ", largest)
```

4. Result/Output/Writing Summary:

I. Check and print the palindrome number.

Output:



```

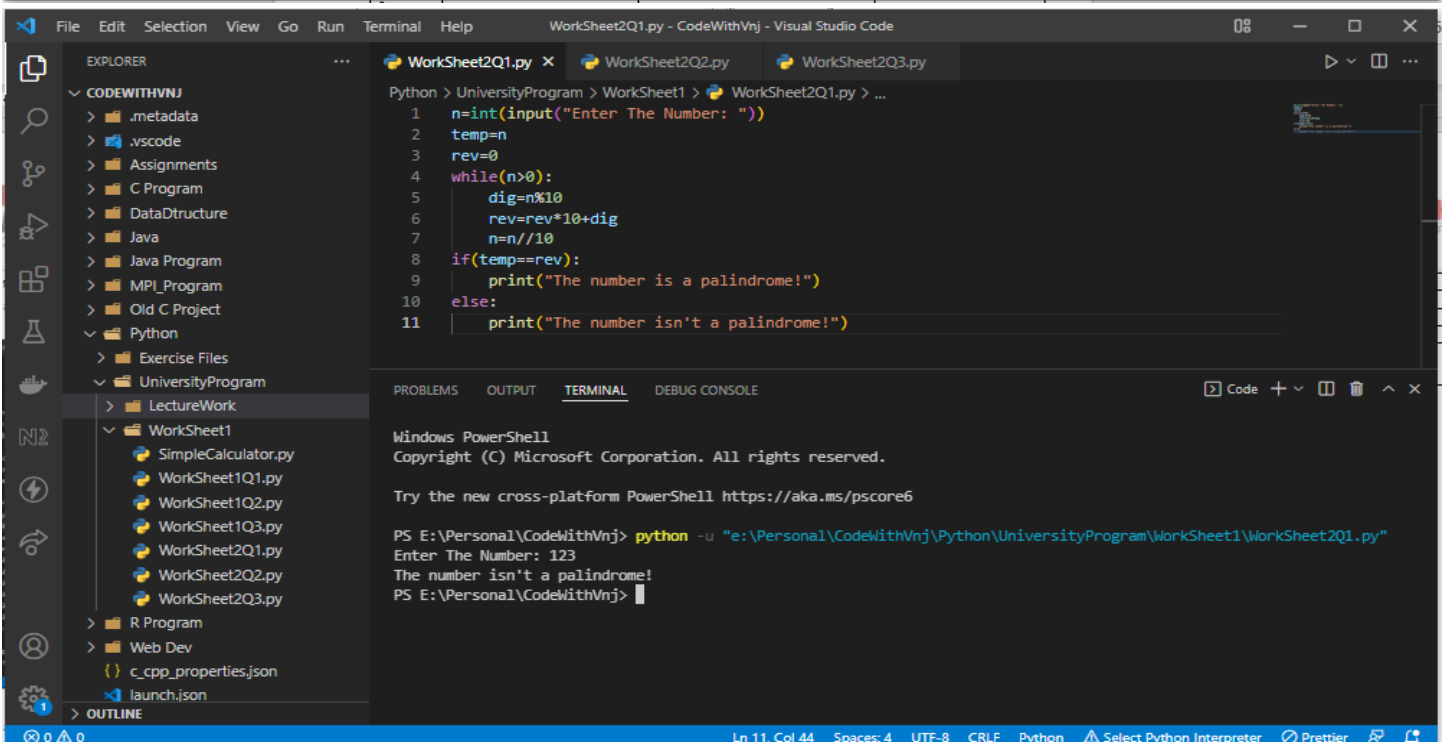
Python > UniversityProgram > Worksheet1 > Worksheet2Q1.py > ...
1 n=int(input("Enter The Number: "))
2 temp=n
3 rev=0
4 while(n>0):
5     dig=n%10
6     rev=rev*10+dig
7     n=n//10
8 if(temp==rev):
9     print("The number is a palindrome!")
10 else:
11     print("The number isn't a palindrome!")
  
```

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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\Worksheet1\Worksheet2Q1.py"

Enter The Number: 121
The number is a palindrome!
PS E:\Personal\CodeWithVnj>



```

Python > UniversityProgram > Worksheet1 > Worksheet2Q1.py > ...
1 n=int(input("Enter The Number: "))
2 temp=n
3 rev=0
4 while(n>0):
5     dig=n%10
6     rev=rev*10+dig
7     n=n//10
8 if(temp==rev):
9     print("The number is a palindrome!")
10 else:
11     print("The number isn't a palindrome!")
  
```

Windows PowerShell
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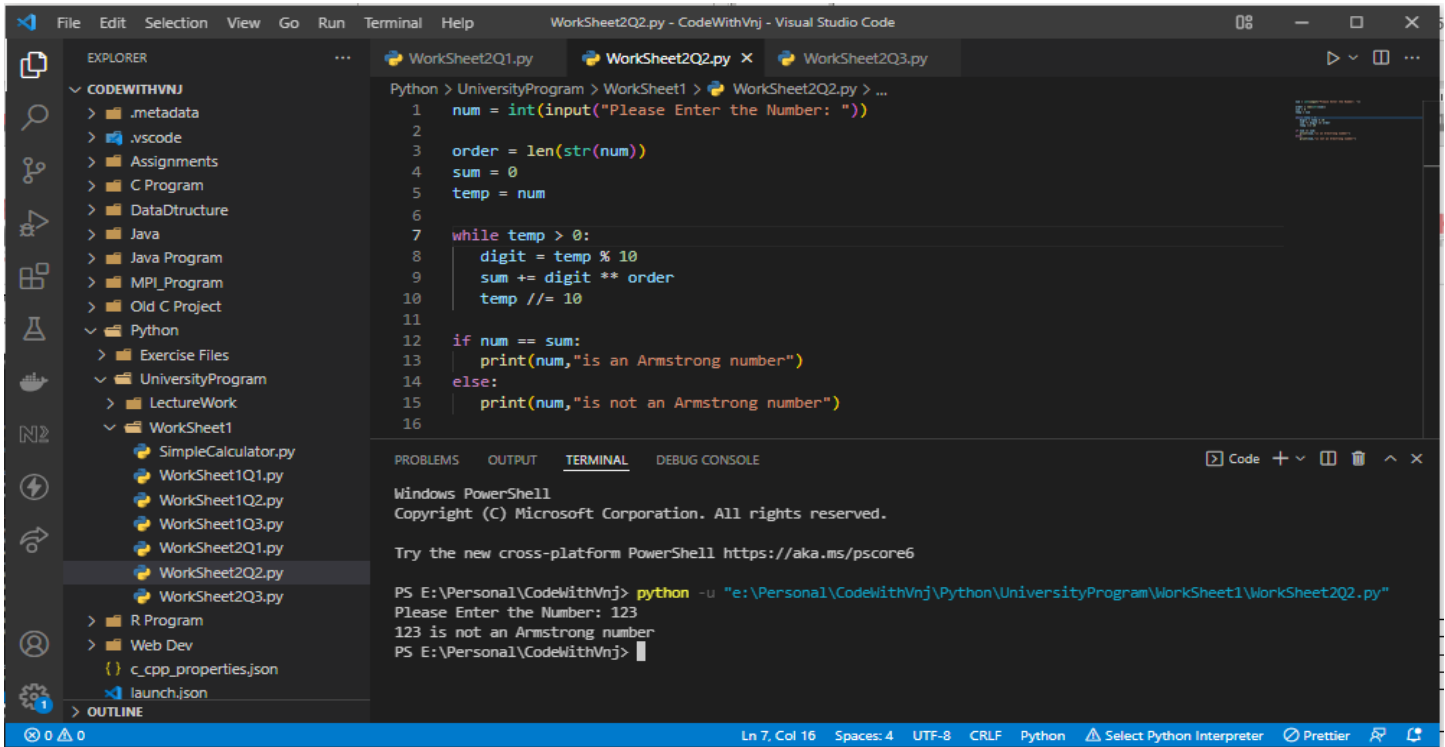
Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\Worksheet1\Worksheet2Q1.py"

Enter The Number: 123
The number isn't a palindrome!
PS E:\Personal\CodeWithVnj>

II. Check and print the Armstrong number.

Output:



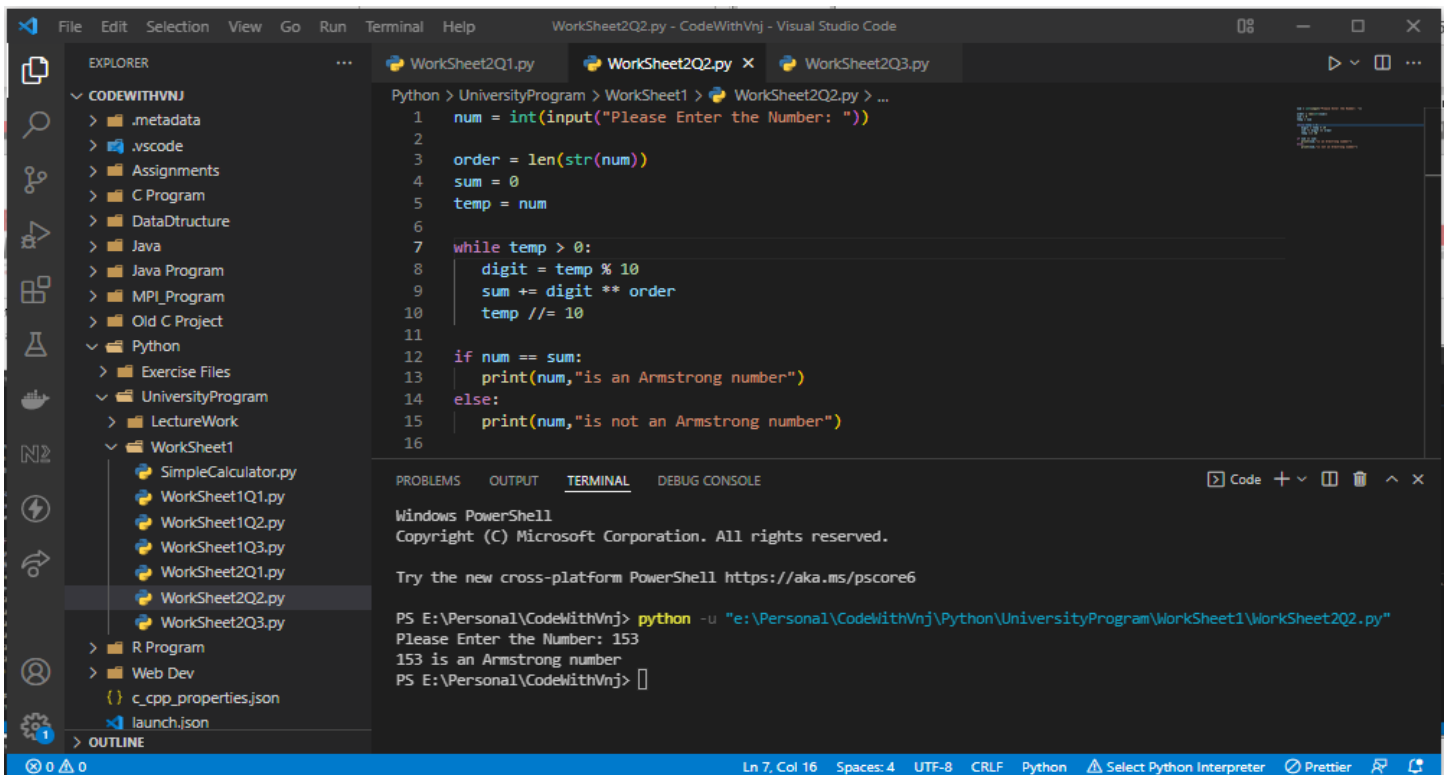
```

Python > UniversityProgram > Worksheet1 > Worksheet2Q2.py > ...
1  num = int(input("Please Enter the Number: "))
2
3  order = len(str(num))
4  sum = 0
5  temp = num
6
7  while temp > 0:
8      digit = temp % 10
9      sum += digit ** order
10     temp //= 10
11
12 if num == sum:
13     print(num,"is an Armstrong number")
14 else:
15     print(num,"is not an Armstrong number")
16
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
Windows PowerShell
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PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\Worksheet1\Worksheet2Q2.py"
Please Enter the Number: 123
123 is not an Armstrong number
PS E:\Personal\CodeWithVnj>

```



```

Python > UniversityProgram > Worksheet1 > Worksheet2Q2.py > ...
1  num = int(input("Please Enter the Number: "))
2
3  order = len(str(num))
4  sum = 0
5  temp = num
6
7  while temp > 0:
8      digit = temp % 10
9      sum += digit ** order
10     temp //= 10
11
12 if num == sum:
13     print(num,"is an Armstrong number")
14 else:
15     print(num,"is not an Armstrong number")
16
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
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PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\Worksheet1\Worksheet2Q2.py"
Please Enter the Number: 153
153 is an Armstrong number
PS E:\Personal\CodeWithVnj>

```

III. Check and print greatest number.

Output:

```

Python > UniversityProgram > WorkSheet1 > WorkSheet2Q3.py > ...
1 num1 = int(input("Enter the 1st Number:"))
2 num2 = int(input("Enter the 2nd Number:"))
3 num3 = int(input("Enter the 3rd Number:"))
4
5 if (num1 >= num2) and (num1 >= num3):
6     largest = num1
7 elif (num2 >= num1) and (num2 >= num3):
8     largest = num2
9 else:
10    largest = num3
11
12 print("The largest number is ", largest)
13

```

```

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PS E:\Personal\CodeWithVnj> python -u "e:\Personal\CodeWithVnj\Python\UniversityProgram\WorkSheet1\WorkSheet2Q3.py"
Enter the 1st Number:15
Enter the 2nd Number:145
Enter the 3rd Number:140
The largest number is 145
PS E:\Personal\CodeWithVnj>

```

Learning outcomes (What I have learnt):

1. I have learnt, how to find Armstrong Number.
2. Learnt to find the Palindrome number.
3. Learnt to find the Largest number.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			