

**Assignment -1**  
Python Programming

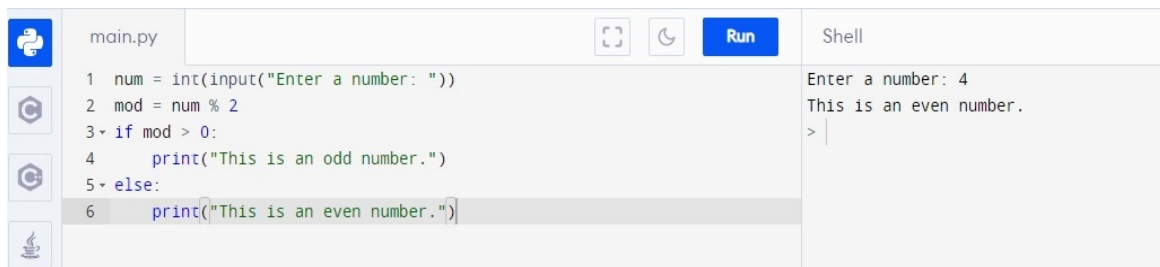
Assignment Date	29 September 2022
Team id	PNT2022TMID44143
Student Name	Arun Vinod K
Student Roll Number	724019104003
Maximum Marks	2 Marks

**Question-1:**

Write a Python program to find whether a given number (accept from the user) is even or odd, print out an appropriate message to the user

**Solution:**

```
num=int(input("ENTER A NUMBER"))
mod = num % 2
if mod>0:
    print("This is an odd number.")
else:
    print("This is an even number.")
```



The screenshot shows a Python IDE with a file named 'main.py'. The code in the editor is as follows:

```
1 num = int(input("Enter a number: "))
2 mod = num % 2
3 if mod > 0:
4     print("This is an odd number.")
5 else:
6     print("This is an even number.")
```

On the right side, the 'Shell' window shows the execution output:

```
Enter a number: 4
This is an even number.
> |
```

**Question-2:**

Write a Python program to get the n (non-negative integer) copies of the first 2 characters of a given string. Return the n copies of the whole string if the length is less than 2

**Solution:**

```
def substring_copy(str, n):
    flen = 2
    if flen > len(str):
        flen = len(str)
    substr = str[:flen]
```

```

        result = ""
    for i in range(n):
        result = result + substr
    return result
print(substring_copy('abcdef', 2))
print(substring_copy('p', 3));

```

The screenshot shows a code editor with a file named 'main.py'. The code defines a function 'substring\_copy' that takes a string 'str' and an integer 'n'. It calculates the length of the string, checks if 'n' is greater than the length, and then extracts a substring of length 'n'. The function returns the substring. The main program calls the function with 'abcdef' and '2', and 'p' and '3', printing the results. The output in the shell is 'abab' and 'ppp'.

```

main.py
1 def substring_copy(str, n):
2     flen = len(str)
3     if flen > len(str):
4         flen = len(str)
5     substr = str[:flen]
6
7     result = ""
8     for i in range(n):
9         result = result + substr
10    return result
11 print(substring_copy('abcdef', 2))
12 print(substring_copy('p', 3));
13
Shell
abab
ppp
>

```

### Question-3:

Write a Python program to count the number 4 in a given list.

### Solution:

```

def list_count_4(nums):
    count = 0
    for num in nums:
        if num == 4:
            count = count + 1

    return count

print(list_count_4([1, 4, 6, 7, 4]))
print(list_count_4([1, 4, 6, 4, 7, 4]))

```

The screenshot shows a code editor with a file named 'main.py'. The code defines a function 'list\_count\_4' that takes a list 'nums' and counts the number of 4s in it. The main program calls the function with two lists: [1, 4, 6, 7, 4] and [1, 4, 6, 4, 7, 4], printing the results. The output in the shell is '2' and '3'.

```

main.py
1 def list_count_4(nums):
2     count = 0
3     for num in nums:
4         if num == 4:
5             count = count + 1
6
7     return count
8
9 print(list_count_4([1, 4, 6, 7, 4]))
10 print(list_count_4([1, 4, 6, 4, 7, 4]))
Shell
2
3
>

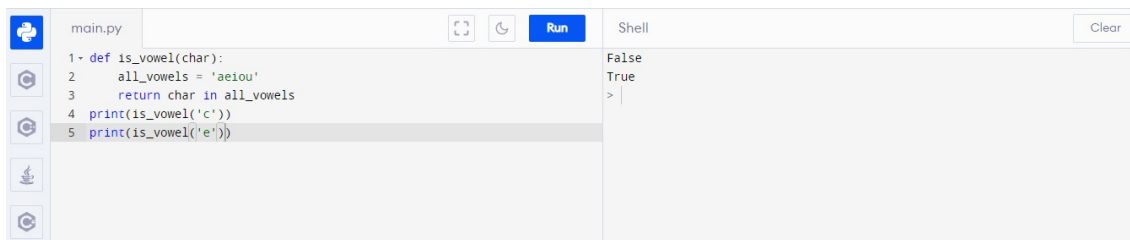
```

**Question-4:**

Write a Python program to test whether a passed letter is a vowel or not.

**Solution:**

```
def is_vowel(char):  
    all_vowels = 'aeiou'  
    return char in all_vowels  
  
print(is_vowel('c'))  
print(is_vowel('e'))
```



The screenshot shows a Python IDE with a file named 'main.py'. The code in the editor is:

```
1 def is_vowel(char):  
2     all_vowels = 'aeiou'  
3     return char in all_vowels  
4 print(is_vowel('c'))  
5 print(is_vowel('e'))
```

The 'Run' button is highlighted. To the right, the 'Shell' window shows the output:

```
False  
True  
> |
```

**Question-5:**

Write a Python program to check whether a specified value is contained in a group of values.

*Test Data:*

3 -> [1, 5, 8, 3] : True

-1 -> [1, 5, 8, 3] : False

**Solution:**

```
def is_group_member(group_data, n):  
    for value in group_data:  
        if n == value:  
            return True  
    return False  
  
print(is_group_member([1, 5, 8, 3], 3))
```

`print(is_group_member([5, 8, 3], -1))`

main.py		Shell
	<pre>1- def is_group_member(group_data, n): 2-     for value in group_data: 3-         if n == value: 4-             return True 5-     return False 6- print(is_group_member([1, 5, 8, 3], 3)) 7- print(is_group_member([5, 8, 3], -1))</pre>	<pre>True False &gt;  </pre>