Python Programming Practical

Practical 3

- **A pangram is a sentence that contains all the letters of the English alphabet at least once, for example: The quick brown fox jumps over the lazy dog. Your task here is to write a function to check a sentence to see if it is a pangram or not.**

```
3.a.write a function to check a sentence to see if it is a pangram or not.py - C:/Users/Gauri/Downloads/3.a.write a function to check a sentence to see if it is a pangram or not.py (3.4.3)
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'''
A pangram is a sentence that contains all the letters of the English alphabet at least once, for example:
The quick brown fox jumps over the lazy dog.
Your task here is to write a function to check a sentence to see if it is a pangram or not.
'''
def panagram(itv):
    #check is variable containining all 26 alphabets
    check="abcdefghijklmnopqrstuvwxyz"
    for letter in check:
        if(letter in itv):
            continue
        else:
            return False
    return True
string=input("Enter Any Text:")
if(panagram(string.lower())):
    #string.lower() will convert any string from user to lower
    #so we do not need upper case letters in check variable
    print("Yes It is a Pangram")
else:
    print("No It is not a Pangram")
```

OUTPUT

```
>>>
Enter Any Text:itvoyagers
No It is not a Pangram


>>>
Enter Any Text:The quick brown fox jumps over the lazy dog
Yes It is a Pangram
```

- **Take a list, say for example this one:**
  a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
  and write a program that prints out all the elements of the list that are less than 5.

TYPE 1

3.b.write a program that prints out all the elements of the list that are less than 5.py - C:/Users/Gauri/Downloads/3.b.write a program that prints out all the elements of the list that are l

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```python
'''
Take a list, say for example this one:
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
and write a program that prints out all the elements of the list that are less than 5.
'''

def lessthanfive(li):
    n=5
    new_list = [ele for ele in li if ele < n]
    return new_list

list1 = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
print("The list is ", str(list1))
new_list = lessthanfive(list1)
print ("New list having less than 5 values is",new_list)
```

OUTPUT

```
>>>
The list is  [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
New list having less than 5 values is [1, 1, 2, 3]
>>>
```

NOTE: Above program is static and can check only values less than 5 if we want to make it dynamic, we can accept value from user in place of 5.
Below is example of same program with runtime value from user.

TYPE 2

3.b.write a program that prints out all the elements of the list that are less than 5.py - C:/Users/Gauri/Downloads/3.b.write a program that prints out all the elements of the list that are le:

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```python
'''
Take a list, say for example this one:
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
and write a program that prints out all the elements of the list that are less than 5.
'''
def lessthanfive(li,itv):
        new_list = [ele for ele in li if ele < itv]
        return new_list

list1 = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
print("The list is ", str(list1))
itv=int(input("Enter a value to check values less than it"))
new_list = lessthanfive(list1,itv)
print ("New list having less than 5 values is",new_list)
```

OUTPUT

```
>>>
The list is  [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
Enter a value to check values less than it13
New list having less than 5 values is [1, 1, 2, 3, 5, 8]
>>> ==================================
===============
>>>
The list is  [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
Enter a value to check values less than it21
New list having less than 5 values is [1, 1, 2, 3, 5, 8, 13]
```