miscellaneous_exerise

May 20, 2024

[ ]:
```python
#Qn.1 reverse a string
def reverse_string (s):
    return s[::-1]
reverse_string ('hello world')
```

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```
'dlrow olleh'
```

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```python
#Qn.2 Palindrome Checker
def is_palindrome (s):
    return s == s[::-1]
is_palindrome('madam')
```

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True
```

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```python
#Qn.3 Factorial Calculator
def factorial_of_number(n):
    if n==0 or n==1:
        print(1)
    else:
        factorial = 1
        for number in range (1, n+1):
            factorial *= number
        print(factorial)
factorial_of_number(6)
```

```
720
```

[ ]:
```python
#Qn.4 Fibonacci Sequence
def fibonacci_sequence (n):
    sequence = [0,1]
    while len (sequence)< n :
        sequence.append(sequence[-1] + sequence[-2])
    return sequence
fibonacci_sequence (8)
```

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```
[0, 1, 1, 2, 3, 5, 8, 13]
```

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```python
#Qn.5 Prime Number Checker
def is_prime_number (n):
    if n <= 1:
        return False
    for number in range(2,int(n**0.5)+1):
        if n % number == 0:
            return False
    return True
is_prime_number(23)
```

[ ]: True

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```python
#Qn.6 List Reversal
def reverse_list(list):
    return list[::-1]
reverse_list([1,3,5,6,8])
```

[ ]: [8, 6, 5, 3, 1]

[ ]:
```python
#Qn.7 List Sorting
def sort_list(list):
    return sorted(list)
sort_list([3,7,1,9,2])
```

[ ]: [1, 2, 3, 7, 9]

[ ]:
```python
#Qn.8 Anagram Checker
def are_anagram(string1, string2):
    return sorted(string1) == sorted(string2)
are_anagram('listen','silent')
```

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```python
#Qn.9 Count words in a String
def count_words(string):
    return len(string.split())
count_words('hello world')
```

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```python
#Qn.10 Unique Elements
def unique_elements(lst):
    return list(set(lst))
unique_elements([2,4,3,2,6,4,7,9,5,3,5,1,6])
```

[ ]: [1, 2, 3, 4, 5, 6, 7, 9]