

Practical Workbook
Introduction To Data Science



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Lab # 3

Task 1. Write a Python program that accepts a word from the user and reverse it.

Code:

```
# Task 01

a = input("Input a word to reverse: ")

print("Your Reversed String is: ")
for i in range(len(a) - 1, -1, -1):
    print(a[i], end="")

Input a word to reverse: Salmankh3
Your Reversed String is:
3hknamlas
```

Task 2. Write a Python program to count the number of even and odd numbers from a series of numbers.

Sample numbers : numbers = (1, 2, 3, 4, 5, 6, 7, 8, 9)

Expected Output :

Number of even numbers : 5

Number of odd numbers : 4

Code:

```
# Task 02

n = (1, 2, 3, 4, 5, 6, 7, 8, 9)
odd = 0
even = 0
for i in n:
    if not i % 2:
        even+=1
    else:
        odd+=1

print("Your Sequence: ",n)
print("\nNumber of even numbers :",even)
print("Number of odd numbers :",odd)

Your Sequence: (1, 2, 3, 4, 5, 6, 7, 8, 9)

Number of even numbers : 4
Number of odd numbers : 5
```

Task 3. Write a Python program to check the validity of password input by users.
Validation :

- At least 1 letter between [a-z] and 1 letter between [A-Z].
- At least 1 number between [0-9].
- At least 1 character from [\$#@].
- Minimum length 6 characters.
- Maximum length 16 characters.

Code:

```
# Task 03

import re
key = input("Input Your Password: ")
a = True
while a:
    if (len(key)<6 or len(key)>16):
        break
    elif not re.search("[a-z]",key):
        break
    elif not re.search("[0-9]",key):
        break
    elif not re.search("[A-Z]",key):
        break
    elif not re.search("[$#@]",key):
        break
    elif re.search("\s",key):
        break
    else:
        print("Valid Password")
        a=False
        break

if a:
    print("Not a Valid Password")

Input Your Password: @Khatrisalman572
Valid Password
```