SAVITRIBAI PHULE PUNE UNIVERSITY

T. Y. B. B. A. (C.A.) SEMESTER - V
(CBCS 2019 PATTERN)

PRACTICAL SLIP

NAME : LALIT DEVIDAS PATIL
COLLEGE NAME: SINHGAD COLLEGE OF ARTS & COMMERCE WARJE PUNE-58
ROLL NO : 106 DIVISION:B SEAT NO: □□□□□

ACADEMIC YEAR : 2024-25

Certificate

This is to certify that
Mr. PATIL LALIT DEVIDAS

Seat Number_____of T.Y.BBA(CA) Sem - V has Successfully completed Laboratory course (PYTHON) in the Year . He has scored mark out of 10 (For Lab Book).

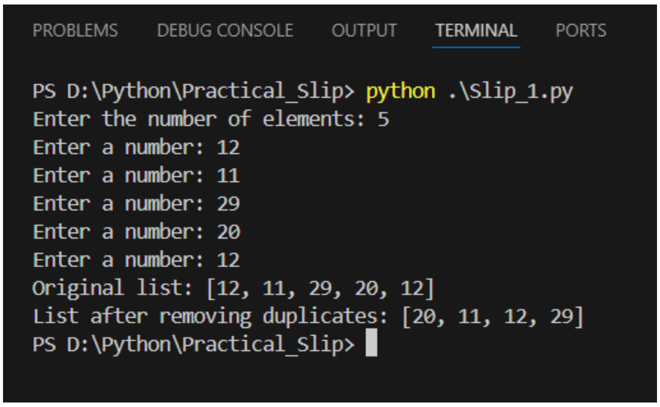
Subject Teacher **H.O.D./Coordinator**

Internal Examiner **External Examiner**

Slip 1

A) Write a Python program to accept n numbers in list and remove duplicates from a list.

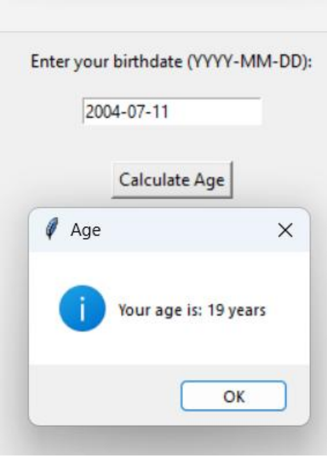
```
def remove_duplicates(numbers):
    return list(set(numbers))
n = int(input("Enter the number of elements: "))
numbers = []
for _ in range(n):
    num = int(input("Enter a number: "))
    numbers.append(num)
print("Original list:", numbers)
print("List after removing duplicates:", remove_duplicates(numbers))
```



```
PS D:\Python\Practical_Slip> python .\Slip_1.py
Enter the number of elements: 5
Enter a number: 12
Enter a number: 11
Enter a number: 29
Enter a number: 20
Enter a number: 12
Original list: [12, 11, 29, 20, 12]
List after removing duplicates: [20, 11, 12, 29]
PS D:\Python\Practical_Slip>
```

B) Write Python GUI program to take accept your birthdate and output your age when a button is pressed.

```
import tkinter as tk
from tkinter import messagebox
from datetime import datetime
def calculate_age():
    try:
        birth_date = datetime.strptime(entry.get(), "%Y-%m-%d")
        today = datetime.today()
        age = today.year - birth_date.year - ((today.month, today.day) <
(birth_date.month, birth_date.day))
        messagebox.showinfo("Age", f"Your age is: {age} years")
    except ValueError:
        messagebox.showerror("Invalid date", "Please enter a valid date in YYYY-MM-DD format")
app = tk.Tk()
app.title("Age Calculator")
label = tk.Label(app, text="Enter your birthdate (YYYY-MM-DD):")
label.pack(pady=10)
entry = tk.Entry(app)
entry.pack(pady=5)
button = tk.Button(app, text="Calculate Age", command=calculate_age)
button.pack(pady=20)
app.mainloop()
```



Enter your birthdate (YYYY-MM-DD):

2004-07-11

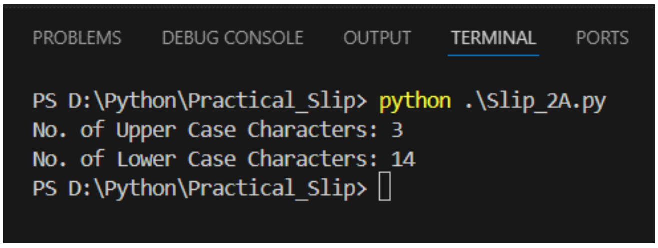
Age

Your age is: 19 years

Slip 2

A) Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.
Sample String: 'The quick Brown Fox'
Expected Output: No. of Upper case characters: 3
No. of Lower case characters: 13

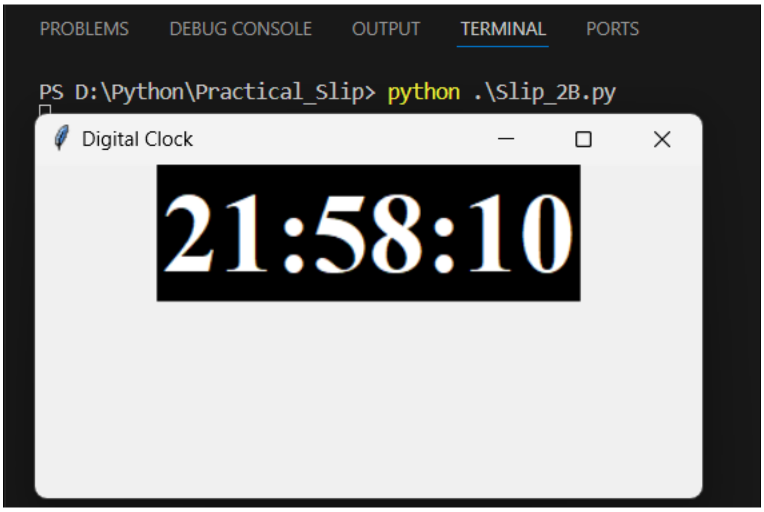
```
def count_upper_lower(s):
    upper_case = sum(1 for char in s if char.isupper())
    lower_case = sum(1 for char in s if char.islower())
    return upper_case,lower_case
sample_string = 'Lalit Devidas Patil'
upper_count, lower_count = count_upper_lower(sample_string)
print(f"No. of Upper Case Characters: {upper_count}")
print(f"No. of Lower Case Characters: {lower_count}")
```



```
PS D:\Python\Practical_Slip> python .\Slip_2A.py
No. of Upper Case Characters: 3
No. of Lower Case Characters: 14
PS D:\Python\Practical_Slip> 
```

B) Write Python GUI program to create a digital clock with Tkinter to display the time.

```
import tkinter as tk
import time
class DigitalClock:
    def __init__(self, root):
        self.root = root
        self.root.title("Digital Clock")
        self.root.geometry("400x200")
        self.clock_label = tk.Label(root, font=("times", 50, "bold"),
bg="black", fg="white")
        self.clock_label.pack(anchor='center')
        self.update_clock()
    def update_clock(self):
        current_time = time.strftime("%H:%M:%S")
        self.clock_label.config(text=current_time)
        self.root.after(1000, self.update_clock)
if __name__ == "__main__":
    root = tk.Tk()
    clock = DigitalClock(root)
    root.mainloop()
```



```
PS D:\Python\Practical_Slip> python .\Slip_2B.py
```

```
21:58:10
```