

Institute of Computer Technology

B. Tech Computer Science and Engineering

Sub: (2CSE403) FUNCTIONAL PROGRAMMING

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SEM: CSE 3-B (BATCH 44)

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Practical 1

1. Shyam wants to know age of his grandfather who was born on 5th June, 1947. Kindly help shyam to know how old is his grandfather? Also, print the calendar for the month and year on which shyam's grandfather was born.

CODE:

```
PRAC1.PY - C:\Users\TUF\Desktop\FP\PRAC1.PY (3.13.1)
File Edit Format Run Options Window Help

import datetime
import calendar

birthdate = datetime.date(1947, 6, 5)

today = datetime.date.today()
age = today.year - birthdate.year - ((today.month, today.day) < (birthdate.month, birthdate.day))
print(calendar.month(1947, 6))
print("shyam grandfather age is", age)
```

OUTPUT:

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>
===== RESTART: C:\Users\TUF\Desktop\FP\PRAC1.PY =====
      June 1947
Mo Tu We Th Fr Sa Su
      1
  2  3  4  5  6  7  8
  9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30

shyam grandfather age is 77
>>
```

2. In an online game competition, a registration form has to be filled up by user. Kindly help user to perform following operation while submitting form.
 - a. User have to submit their detail and a message should be displayed indicating filled details.
 - b. Also submitting time of the form should be noted indicating when the form was last edited.

CODE:

```
*PRAC1.2.py - C:\Users\TUF\Desktop\FP\PRAC1.2.py (3.13.1)*
File Edit Format Run Options Window Help
import datetime

def submit_form():
    name = input("Enter your name: ")
    age = input("Enter your age: ")
    email = input("Enter your email: ")

    submission_time = datetime.datetime.now()

    print("\nForm Submitted Successfully!")
    print(f"Name: {name}")
    print(f"Age: {age}")
    print(f>Email: {email}")
    print(f"Form submitted at: {submission_time.strftime('%Y-%m-%d %H:%M:%S')}")

submit_form()
```

OUTPUT:

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\TUF\Desktop\FP\PRAC1.2.py =====
Enter your name: Sujal Suthar
Enter your age: 19
Enter your email: sujalsuthar2005@gmail.com

Form Submitted Successfully!
Name: Sujal Suthar
Age: 19
Email: sujalsuthar2005@gmail.com
Form submitted at: 2025-01-29 19:32:07
>>>
```

3. Given a number game one needs to generate any random number; iterate through the all digits present and print the sum of all digits.

Here is a sample run:

Enter a number between 0 and 1000:43

The sum of the digits is 7

CODE:

```
PRAC1.3.py - C:\Users\TUF\Desktop\FP\PRAC1.3.py (3.13.1)
File Edit Format Run Options Window Help

import random

number = random.randint(0, 1000)
print(f"Generated number: {number}")

number_str = str(number)
|
sum_of_digits = 0

for digit in number_str:
    sum_of_digits += int(digit)

print(f"The sum of the digits is {sum_of_digits}")
```

OUTPUT:

```
===== RESTART: C:\Users\TUF\Desktop\FP\PRAC1.3.py =====
Generated number: 827
The sum of the digits is 17
>>>
```