

Institute of Computer Technology
B. Tech. Computer Science and Engineering

Semester: IV

Sub: Functional Programming
Course Code: 2CSE403

Practical Number:1

Objective:

Q.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. Print current date and time and the calendar for the month and year on which Shyam's grandfather was born.

Q.2: In an online game competition, a registration form has to be filled up by user by input command. Kindly help user to perform following operation while submitting form.

- a) User have to submit their detail and a message should be displayed that data is submitted or not.
- b) Print the data and submission time.

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 :

```
import datetime  
  
import calendar  
  
import random
```

Task 1: Calculate age and print current date/time and calendar

```
def task_1():  
    birth_date = datetime.date(1947, 6, 5)  
    today = datetime.date.today()  
    age = today.year - birth_date.year - ((today.month, today.day) < (birth_date.month,  
    birth_date.day))  
  
    print(f"Shyam's grandfather is {age} years old.")  
    print(f"Current Date and Time: {datetime.datetime.now()}")  
    print(f"Calendar for {birth_date.year}, {birth_date.month}:\n")  
    print(calendar.month(birth_date.year, birth_date.month))
```

Task 2: User registration form

```
def task_2():  
    user_name = input("Enter your name: ")  
    email = input("Enter your email: ")  
    submission_time = datetime.datetime.now()  
  
    print("Data submitted successfully!")  
    print(f"Name: {user_name}")  
    print(f"Email: {email}")  
    print(f"Submission Time: {submission_time}")
```

Task 3: Random number and sum of its digits

```
def task_3():  
    number = random.randint(0, 1000)  
    print(f"Generated number: {number}")  
    digit_sum = sum(int(digit) for digit in str(number))  
    print(f"The sum of the digits is {digit_sum}")
```

```
# Run all tasks  
  
task_1()  
  
task_2()  
  
task_3()
```

Output :-

```
Shyam's grandfather is 77 years old.  
Current Date and Time: 2025-02-11 03:35:45.540717  
Calendar for 1947, 6:  
  
    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  
  
Enter your name: vishva  
Enter your email: sjfbdsfd  
Data submitted successfully!  
Name: vishva  
Email: sjfbdsfd  
Submission Time: 2025-02-11 03:36:13.925767  
Generated number: 371  
The sum of the digits is 11
```