Annasaheb Dange College of Engineering and Technology, Ashta
(An Autonomous Institute affiliated to Shivaji University, Kolhapur)
Department of Basic Science and Engineering
(NAAC A++ Grade Accredited Institute, NBA Accredited Program, ISO 9001: 2015 Certified Institute)

Micro Project Report

Project Group ID:

Project Title: **"Age Calculator"**

Student Name(s): 1. (1247) Ranjit Patil

With Roll Number 2.(1253) Prithviraj Gaikwad

3. (1255) Ashutosh Mane

4. (1266) Pranav Shinde

Faculty Name: **Prof. Rajanee G. Kavathekar**

Institution Name: **Annasaheb Dange College of Engineering and Technology, Ashta.**

Submission Date:

Sign of Faculty:

Table of Contents

1. Introduction :

The **Age Calculator** program is a C-based application designed to calculate a person's age in terms of years, months, and days. The program takes the user's birth date and the current date as inputs and computes the precise difference between the two dates. It demonstrates practical problem-solving and basic programming techniques.

2. Objective

1.To develop a program that calculates a person's age accurately.
2.To enhance understanding of date-based arithmetic in programming.
3.To demonstrate the use of conditional statements for logical operations.
4.To improve input validation and output formatting skills.

3. Tools and Technologies Used

- **Programming Language**: C
- **Compiler**: Turbo C, Dev-C++
- **Platform**: Windows

4. Problem Statement

To create a program that calculates the precise age of an individual based on their birth date and the current date. The program must handle scenarios where the day or month in the birth date exceeds the corresponding values in the current date by adjusting calculations accordingly.

5. Methodology

- Accept the user's **birth date** and **current date** as input.
- Validate the inputs to ensure they represent valid dates.
- Use conditional logic to adjust for cases where the current day/month is less than the birth day/month.
- Perform the calculations to determine years, months, and days.
- Display the calculated age in a user-friendly format.

6. Algorithm

Start.

Input birth date (`birthDay`, `birthMonth`, `birthYear`).

Input current date (`currentDay`, `currentMonth`, `currentYear`).

If `currentDay < birthDay`, add 30 to `currentDay` and decrement `currentMonth` by 1.

If `currentMonth < birthMonth`, add 12 to `currentMonth` and decrement `currentYear` by 1.

Calculate:

- `ageDays = currentDay - birthDay`
- `ageMonths = currentMonth - birthMonth`
- `ageYears = currentYear - birthYear`

Output the calculated age in the format: `years, months, days`.

End..

8. Source Code

```
#include <stdio.h>
#include<conio.h>

int main()
 {
   int birthDay, birthMonth, birthYear;
   int currentDay, currentMonth, currentYear;
   int ageYears, ageMonths, ageDays;

   printf("Enter your birth date (DD MM YYYY): ");
   scanf("%d %d %d", &birthDay, &birthMonth, &birthYear);

   printf("Enter the current date (DD MM YYYY): ");
   scanf("%d %d %d", &currentDay, &currentMonth, &currentYear);

   if (currentDay < birthDay)
         {
                  currentDay += 30;
                  currentMonth--;
           }
   ageDays = currentDay - birthDay;

   if (currentMonth < birthMonth)
         {
                 currentMonth += 12;
                  currentYear--;
           }
   ageMonths = currentMonth - birthMonth;

   ageYears = currentYear - birthYear;

   printf("Your age is: %d years, %d months, and %d days\n", ageYears, ageMonths, ageDays);

   return 0;
}
```

9. Output

Input:
Enter your birth date (DD MM YYYY): 15 7 2000
Enter the current date (DD MM YYYY): 5 12 2024

Output
Your age is: 24 years, 4 months, and 20 days.

10. Conclusion

The Age Calculator program successfully calculates the exact age of an individual by handling date arithmetic effectively. It is a practical application for real-world use cases and serves as a valuable exercise for learning basic programming concepts like conditional statements, arithmetic operations, and input/output handling.

11. References

- ANSI C
- W3school.com