

Overview:

The age calculator takes the user's birth **day**, **month**, and **year** as input and calculates their exact age, breaking it down into **years**, **months**, and **days**. The calculation accounts for the current date and handles leap years, month lengths, and adjusts for birthdays that haven't yet occurred in the current year.

Key Parts of the Code:

1. Input Validation

Before calculating the age, the code checks whether the input values (day, month, and year) are valid:

- **Day:** It checks if the day is within the possible range for the selected month. For example, February cannot have more than 29 days in a leap year or more than 28 days in a non-leap year.
- **Month:** It ensures that the month is between 1 and 12.
- **Year:** The code ensures the year is greater than 1900 and less than or equal to the current year.

If the input is invalid, the input field is highlighted in red and an error message is shown.

2. Age Calculation Logic

The calculation consists of three main parts:

- **Years:**
 - It subtracts the birth year from the current year to calculate the number of years.
 - If the birth date hasn't yet occurred in the current year (i.e., the month or day hasn't passed), it subtracts 1 from the calculated years.
- **Months:**
 - It subtracts the birth month from the current month to get the number of months.
 - If the current day is before the birth day, the month count is adjusted by reducing the month by 1 (and if necessary, wrapping the months back to 11 if negative).
- **Days:**
 - If the current day is before the birth day, the days are calculated by borrowing days from the previous month.
 - The code calculates the number of days in the previous month to ensure the subtraction is accurate.

3. Leap Year Check

The function `isLeapYear(year)` determines whether the year provided by the user is a leap year, affecting how February is handled when validating the day. A leap year occurs when:

- The year is divisible by 4 but not divisible by 100, or

- The year is divisible by 400.

This is important because February has 29 days in leap years and 28 days in non-leap years.

4. Handling Date Differences

- If the **birth month** hasn't occurred yet in the current year, it adjusts by reducing the year count by 1 and adding 12 months to compensate.
- If the **birth day** hasn't occurred yet in the current month, it borrows days from the previous month to ensure the total day calculation is correct.

5. Display Results

Once the years, months, and days are calculated:

- The result is displayed in a user-friendly format such as:
 - **"Your age is: X years, Y months, and Z days."**
- This message breaks down the age into the most detailed components, providing a complete picture of how long the user has lived.

Example Walkthrough:

Let's say the birthdate is **15th September 1990**, and today's date is **19th September 2024**.

1. **Years:**
 - `2024 (current year) - 1990 (birth year) = 34 years`
2. **Months:**
 - Since today's month (September) is the same as the birth month, there are **0 months**.
3. **Days:**
 - Since today (19th September) is 4 days after the birthdate (15th September), there are **4 days**.

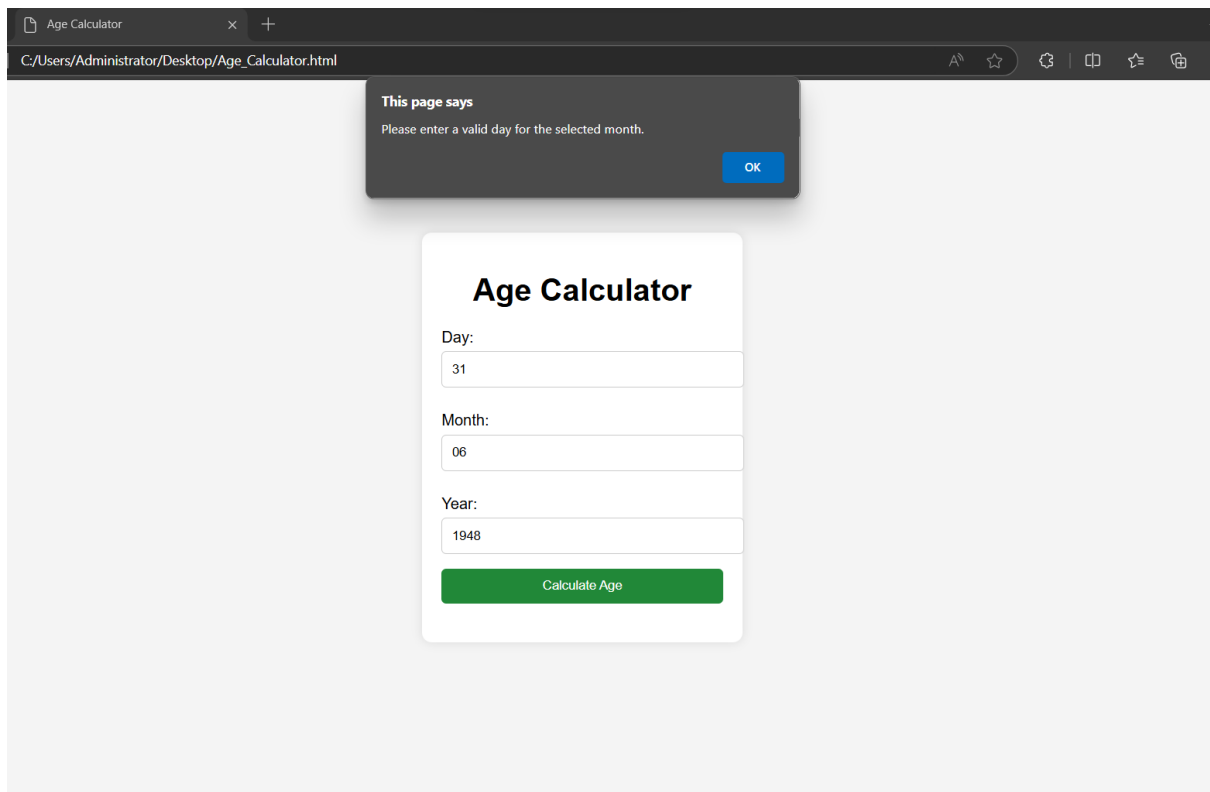
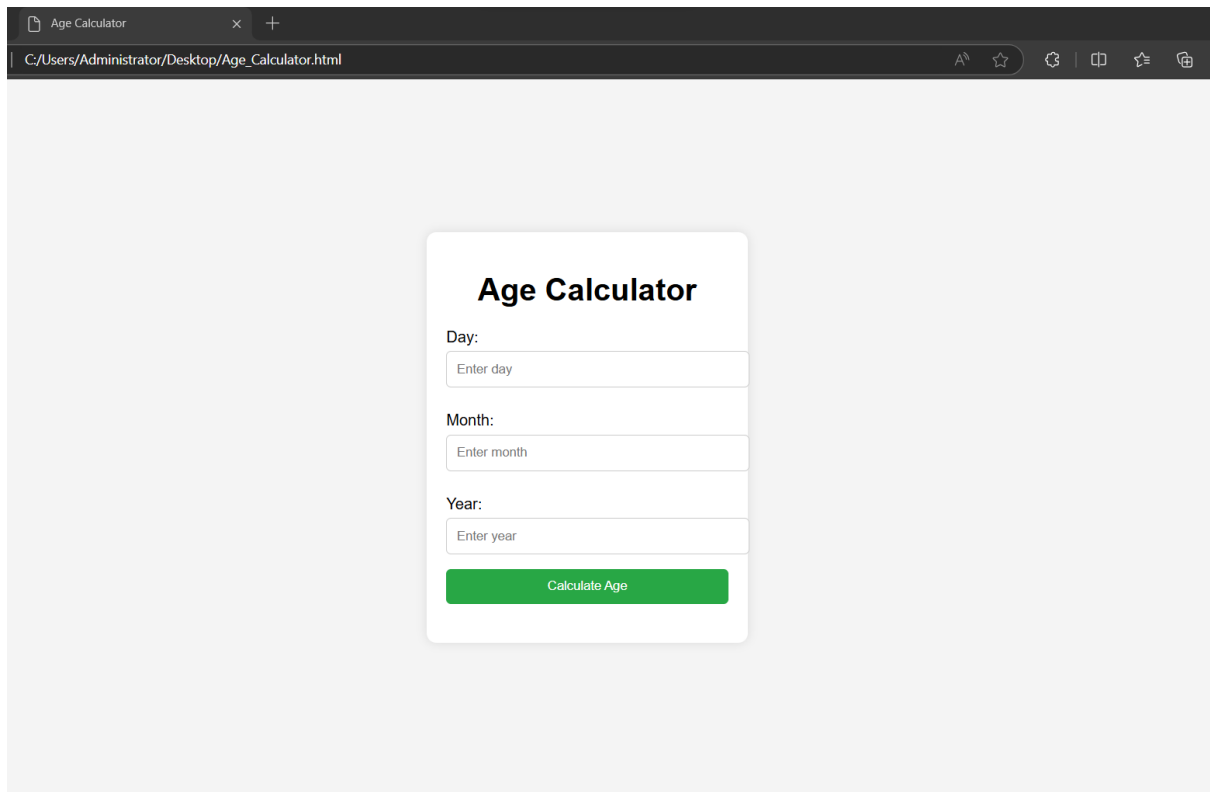
Thus, the final output would be: **"Your age is: 34 years, 0 months, and 4 days."**

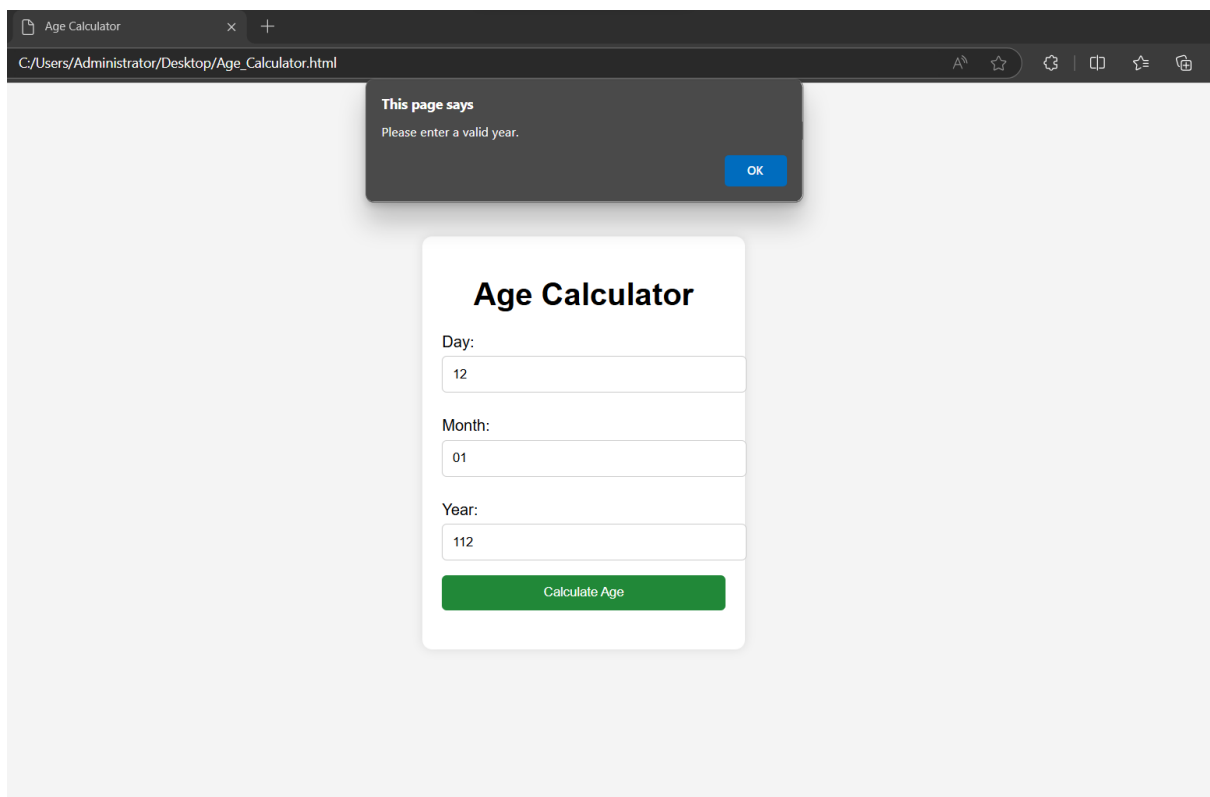
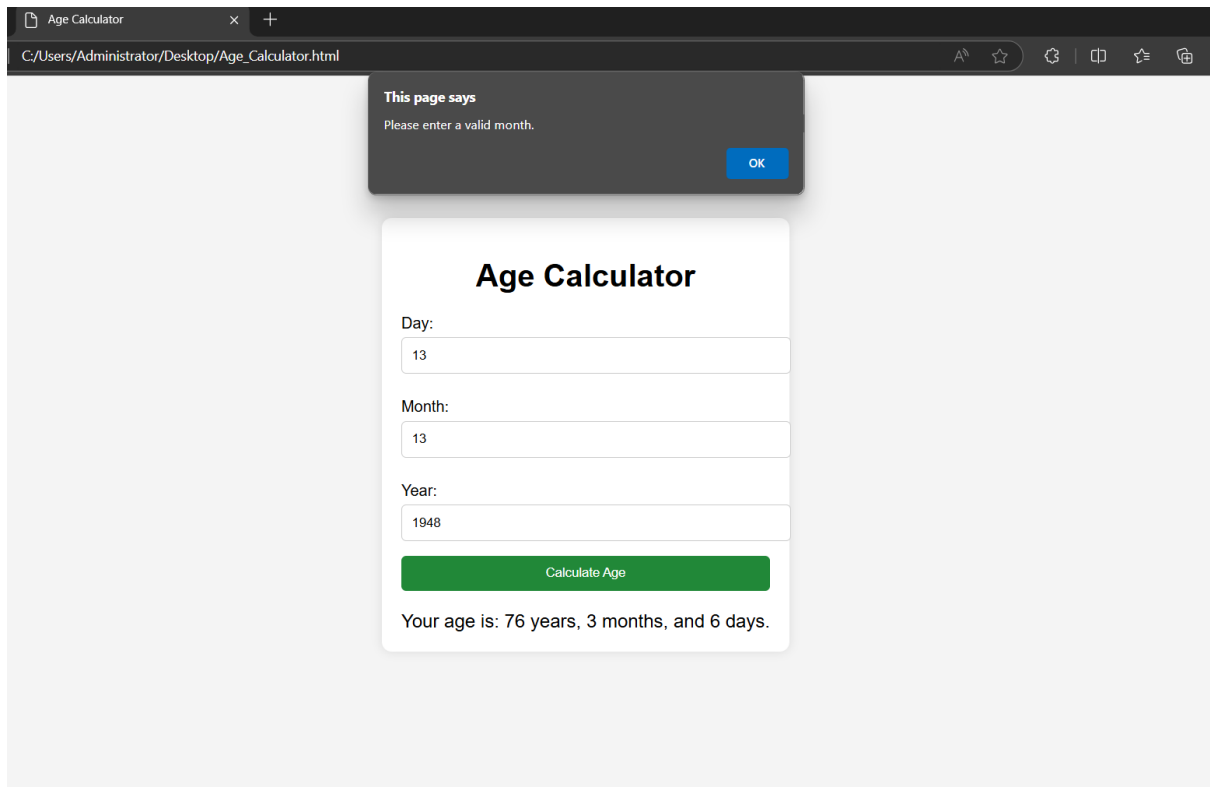
Code Highlights:

- **Leap Year Handling:** The leap year function ensures February's day count is correct.
- **Month and Day Adjustment:** The code correctly adjusts months and days when the birthday hasn't occurred yet in the current year.
- **User-Friendly Feedback:** Invalid inputs are highlighted in red, with alerts prompting users to correct their input.

Summary:

This age calculator provides a detailed breakdown of age by considering years, months, and days. It handles edge cases like leap years, different month lengths, and birthdays that haven't yet occurred this year. This ensures the result is precise and reflects the exact age in real time.





Age Calculator

C:/Users/Administrator/Desktop/Age_Calculator.html

A

Age Calculator

Day:

12

Month:

01

Year:

1999

Calculate Age

Your age is: 25 years, 8 months, and 7 days.