**Critical Thinking Assignment 2: Option 2**

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CSC372: Programming II

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**Introduction**

This project creates a simple GUI application to calculate a user's age based on their birth year. The program uses Java Swing to build a user interface with a text field, button, and label to display the result. The goal is to demonstrate basic GUI programming and event handling.

**Methodology**

The application was developed using Java and the Swing library. A JFrame window contains a JPanel with a GridLayout to organize components: a JTextField for the birth year, a JButton to trigger calculation, and a JLabel to show the age. An ActionListener handles the button click, parsing the input as an integer and subtracting it from the current year (obtained via Calendar). Error handling catches invalid inputs (non-numeric or unrealistic ages).

*--Screenshot below--*

A screen shot of a computer program

AI-generated content may be incorrect.

Figure : AgeCalculator.java

**Results**

The program successfully calculates and displays the user’s age when a valid birth year is entered (e.g., 1990 yields age 35 in 2025). Invalid inputs, like letters or unrealistic years, display error messages ("Enter a valid year" or "Invalid age").

A screenshot of a computer

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Figure : Main screen when the program is executed.

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Figure : "Enter a Valid year" is the result when invalid year types are entered.

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Figure : "Your age is: 35" when 1990 is entered.

**References**

GITHUB: <https://github.com/FistanRaist/CSC372-Programming-II/tree/main/CTA02-Age%20Calculator>

A screenshot of a computer

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Figure : CSC372-Programming-II/CTA02-Age Calculator at main · FistanRaist/CSC372-Programming-II