

# GPA Calculator

By Pranav. S. Moorthy

# Key Features

- Calculates GPA from both letter and number grades on a graphical interface
- Can account for weightage from both Honors and AP courses
- Can export the results in an HTML file
  - Can be viewed in the user's browser of choice



# Calculator UI Design

The screenshot shows the 'Table' application window with the following components identified by callouts:

- Menu bar:** Located at the top left, containing 'File' and 'Table' menus.
- Grade type:** Radio buttons for 'Letter Grade' (selected) and 'Number Grade'.
- Number of Courses:** A text input field containing the value '17'.
- Course Name:** Points to the first column header of the table.
- Course Type: Regular, Honors, AP:** Points to the first dropdown menu in the table.
- Grade in number or letter format:** Points to the first empty cell in the 'Grade' column.
- GPA Result:** Points to the 'Weighted GPA' and 'Unweighted GPA' labels at the bottom left.
- Download as HTML file:** Points to the 'Download' button at the bottom right.

The table has three columns: 'Name', 'Type', and 'Grade'. It contains 17 rows, each with a 'Regular' dropdown in the 'Type' column and an empty cell in the 'Grade' column. The bottom of the window displays 'Weighted GPA: X.XXXX' and 'Unweighted GPA: X.XXXX' in red text, and buttons for 'Reset', 'Download', and 'Quit'.

# How the program works: Update GPAs

- Detect when user enters the grade
- Assign a number between 0 and 4 based on the grade
- Find the weightage on the courses based on whether they are Honors or AP
- Average the base numbers to get the unweighted GPA
- Average the base numbers with the weightage to get the weighted GPA
- Show both on screen



# How the program works: Downloading

- Created HTML file, containing table with following details:
  - course information from the program
  - Weighted and Unweighted GPA
  - Save the file in selected location



# Credits:

## **Development & Testing:**

Programming Language: Java

Development Editor: Visual Studio Code

Testing: JUnit for Test Cases

Packaging: Maven

## **Creative Content:**

Splash Screen image from Unsplash

Splash screen created in Canva (<https://canva.com>)



# Source Code

- <https://github.com/pranavsmoorthy/gpacalculator/tree/main>

## Licenses

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- Canva (<https://www.canva.com/policies/content-license-agreement/>) - Allowed for school and university projects as described in section 5



# Thank You

- FBLA
- Club Mentors and Teachers
- Software Community

