Original project:

This took me about an hour to research and develop. Obviously, I needed the previous development experience that took years to acquire to do this as well.

Chat GPT

Input: can you develop me an app that will calculate macros based on Weight, height and age and assume the calculations are for a male. Code this in Java and simply print the output to console.

Chat gpt was able to give me some code in under a minute that executed as soon as I plugged it into a project without any errors. The formula it decided to use was very similar to the one I chose and the results were the same.

Meta AI

Input: can you develop me an app that will calculate macros based on Weight, height and age and assume the calculations are for a male. Code this in Java and simply print the output to console.

Meta AI created some much more elaborate code however it developed the app in approximately the same amount of time as ChatGPT. At first glance the app appears to be much more intricate then needed and I have a suspicion this one will run slower as a result, but we will see with future testing how these apps perform when compared to mine.

Results

The results that were yielded from each project were quite a bit different as you can see from the screen shot below. The formula I used for my application was obtained using research and once I built my macro calculator, I compared it to many existing calculators that already exist on the web to make sure the results were at least close to the results others obtained. Asking these AI’s to create the app, it appears their calculations were very different from what I had come up with and are most likely less accurate compared to what I was able to develop.

A screenshot of a calculator

Description automatically generated

Efficiency

To test efficiency, I setup JMeter but the results where pretty much identical because there aren’t huge differences between the apps and the application is really simple. So to test I ran each application multiple times and compared the execution times. My hand built app being a little less convoluted then the AI apps ran in 312 milliseconds. Both of the AI apps where longer with ChatGPT taking 330 seconds and MetaAI taking 397 milliseconds. Obviously this isn’t a big factor on a smaller app like this one but that amount of times increase could be exponentially larger on a more elaborate application.