

Computer Architecture & Assembly Language

Final Project – Case Studies

For this project, based on the material you learned during the term, you need to analyze and compare two programs written in MASM assembly. You should provide a description of the programs, their procedures and a functional decomposition flowchart, showing your understanding of the code.

Furthermore, in your analyses you should answer questions such as,

How the programmers use registers? Do they use sub-registers?

Which addressing modes the programmers use?

Do the programmers use procedures? How they implement parameter passing?

Do the programmers use the stack?

Do the programmers use constants and macros?

Do the programmers use the FPU?

How the programmers handle I/O?

Are there any procedures or instructions that you did learn in the class? Can you figure out what they do?

Are there any graphics? How the programmers implement graphics?

Do the programmers include enough documentation?

Finally, are there any bugs in those programs? What improvements would you suggest for the programs?

There are no limitations for the length of the report. It should be as long as it needs to be in order to describe all of the above. The report should be typed, and academic language is expected. The submission of the report should be done through CANVAS.