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## Individual Report

As an individual in this lab, my role was to help implement fetch and data memory. In specific, I helped implement fetch align in the fetch stage and I implemented the whole of the data memory for the memory stage. Additionally, I put the final processor together meaning I attached all the separate units and made it so their outputs were easily viewable for debugging (this does not mean I am responsible for putting all the circuits together successfully rather I put them together in an easily readable manner). Finally, I helped with the entire debugging process alongside all my teammates working out the kinks of our implementation.

An advantage of doing this as a team was that we were able to split the task into more manageable parts, allowing us to then combine them together to complete the whole problem. This project easily would have been too much to manage by myself within this timeframe so having a team was greatly beneficial. Also, since the processor is made up of different stages, this project was uniquely suited for a team. Thankfully, everyone on my team did their part making everything go pretty smoothly.

However, a large disadvantage was the lack of shareable Logism files or rather an interface where multiple people could work at the same time. We sunk a lot of time into uploading and downloading files into google drive since a lot of this was done from home, and communicating an error via screen share on a call was less than favorable.

Despite these challenges, I feel that our group worked well together, and we achieved solid results. Matthew Peterka did a great job helping with the fetch stage and PC update, Anirudh Utagikar did a great job with the decode stage, and Maddie Bird did a great job with the execute stage and lab report. I believe there is still room for improvement in our processor though, as we were not able to successfully implement the nop and push instruction.

Overall, I think that working in a group provided us with the opportunity to leverage each other's strengths and collaborate to complete the project successfully. However, there is still room for improvement and growth. Though this project felt like an incredible amount of work, I am proud of what my team accomplished and I am happy to have gotten to work with them.