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Tasks

- Create JPEG DCT and encoder algorithms in a non-parallelized implementation
- Create JPEG DCT and encoder algorithms in a parallelized implementation
- Run comparison tests between our algorithms and collect statistics
- Identify and test well-known JPEG algorithms
- Run comparison test between our parallelized algorithm and at least one well-known algorithm and collect statistics
- Analyze results and form conclusions
- Document steps taken, results, and conclusions in paper
- Compile final draft
- Review and make corrections to create the final version of the report
- Create presentation slides
- Practice presentation and demonstration

Challenges

- Implementing our own DCT and encoder
- Reworking for parallelization that meets mutual exclusion, deadlock-free, starvation-free and improves on performance
- Setting and running fair and accurate comparison tests to give meaningful and non-biased results
- Getting c++ with an external image library working

Goals

- Complete project tasks
- Develop a better understanding of how parallelization helps and hinders algorithms
- Improve skills related to parallelization and c++
- Gain experience in IEEE paper format and best practices