Progress Report:

Roles:

- Phillip: Load/Store
- David: Cache / Cache Arbiter
- Brian: Branch

Functionalities:

2. **Load/Store (Phillip)**:
    - Implemented load/store with the magic memory
6. **Cache/Cache arbiter (David)**:
    - Implemented cache and cache arbiter which chooses between inst_cache and data_cache
7. **Branch (Brian)**:
    - Implemented branching logic to allow jumps and branches to work

Testing Strategy:

- Unit tests: Each component (Load/Store, Branch, Cache) was thoroughly tested in isolation using unit tests to verify individual functionalities. Then we did an overall testing to see if we passed the coremark

Timing and Energy Analysis:

- Fmax = 689.665   MHz
- Clk period = 1.45   ns

Roadmap: Roles:

- Phillip: Superscalar
- David: Pipelined Cache
- Brian: Perceptron Branch Predictor

Features/Functionalities:

4. **Superscalar (Phillip)**:
    - Will focus on implementing superscalar into our design
5. **Pipelined cache (David)**:
    - Will focus on implementing pipelined cache into our design
6. **Basic perceptron branch predictor (Brian)**:
    - Will implement the perceptron branch predictor