Logistics:

03/13 – 03/19: Bangjie and Hao will fully verify the proposed approach in theory and blueprint the high-level design of cache simulators, testing tools, etc.

03/20 – 03/26: Hao will implement a highly customizable cache simulator based on pintool. And Bangjie will implement a baseline protocol (either cache-invalidate or cache-update).

03/27 – 04/02: Bangjie and Hao will integrate the cache simulator and baseline protocol. And testing tools such as stack trace, logger, etc, will be implemented if needed.

04/03 – 04/09: Bangjie and Hao will fully evaluate the baseline performance on typical producer-consumer applications and prepare for the mid-milestone presentation. We expect to finish 75% goal at the end of this period.

04/10 – 04/16: Hao will work on a detector that can identify producer-consumer sharing workloads. And Bangjie will be working on implementing another protocol in addition to baseline protocol.

04/17 – 04/23: At this point, we expect to have some issues. So we plan to use this week to address them and refactor our codebase.

04/24 – 04/30: Bangjie and Hao will integrate all components we have so far. We expect to get producer-consumer applications running on our system.

05/01 – 05/07: Bangjie and Hao will thoroughly evaluate the system performance on producer-consumer applications. We expect to achieve a reasonable speedup over the baseline.

05/08 – 05/14: Project summary and final presentation. And an evaluation of the performance on general applications will be done if we still have time.

Milestone:

By Tuesday, April 11th, we expect to have an integrated system consist of a highly customizable cache simulator, a baseline protocol, and several testing tools if needed. And a thorough evaluation on its performance on typical producer-consumer applications can also be expected.