

# **CS 3853 Computer Architecture**

## **Project Report**

**May 2, 2019 7:30 p.m.**

**Team\_XX**

### **Group Members**

**Printed Name #1**

**Printed Name #2**

**...**

**Printed Name #n**

**By signing this report I affirm that I know and agree with the contents.**

### **Signatures:**

**Name #1:** \_\_\_\_\_

**Name #2:** \_\_\_\_\_

**Name #3:** \_\_\_\_\_

**Name #4:** \_\_\_\_\_

## **Objectives:**

- A. Comprehend how a cache implementation works**
- B. Determine the performance benefits based on cache configuration**
- C. Learn to work in a small group**

For each objective, briefly describe at least 3 specific things you learned by doing the project. This is a group answer so you do not need to list everything for everyone in the group.

## **Algorithm**

Briefly describe the algorithm in used in implementation. How did you handle the different cache configurations – Arrays? Heap allocations? Linked lists?

## **Analysis**

This should be the results of running your simulator over a broad range of cache configuration parameters – different sizes, different associativity, and/or different replacement algorithms. I'm not going to specify it exactly – experiment and decide which results would be good to illustrate the various configurations. Graphs are generally a good idea to visually summarize your results.

If you don't get the simulator completely working, you may use mine to do experiments and get results to report on. Just make sure you credit that.

## **Technical Issues:**

Describe your most prominent technical issues and how you solved them. What was most difficult to figure out? You should have at least one and no more than three.

## **Group Member Contributions:**

Describe the contribution by each group member. This is NOT the place to complain about how one person didn't do enough or didn't work well with the group. Also, don't give me the line that everyone (in a group of 3) contributed 33.333% - not buying it! Contributions do not have to be equal but everyone should contribute something --- whether it is coding, testing and validation, or writing up the report.

## **Group Issues and Resolutions:**

Describe any issues in the group. If none, state "None."

## **Conclusion:**

Any parting thoughts on the project. Liked it? Didn't like it? Suggestions for improvement?