**CS422 Project Proposal**

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**Project Title:** Exploring cache structure – cache hierarchy, associativity in caches & specialized caches.

**Problem Statement**:

This project will involve exploring various benefits as well as tradeoffs in cache hierarchy using a simulator. This would include finding the best replacement algorithm, most optimal associativity in various levels of caches, use of victim cache in L1, L2 or L3 and their benefits or drawbacks, if any. Write-through and write-back caches will also be analyzed to infer details about writing policies of caches.