



DOS-Project Part-2- Measurements

Adding Replication, Load Balancing and Caching
Distributed Operating Systems-10636456.

Haya Mikkawi

11819675

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	With Caching	Without Caching
Average response time	84.333ms	12.666ms

- Construct a simple experiment that issues orders or catalog updates (i.e., database writes) to invalidate the cache and maintain cache consistency.

What are the overhead of cache consistency operations?

```
GET /books/purchase/4 [STARTED]
DELETE /invalidate/4 [STARTED]
book changed, delete from cache
undergraduate school
current cache size:1
DELETE /invalidate/4 [FINISHED] 183.718 ms
DELETE /invalidate/4 [CLOSED] 317.704 ms
GET /books/purchase/4 [FINISHED] 2,082.702 ms
GET /books/purchase/4 [CLOSED] 2,082.793 ms
```

Invalidate operation took 183.718 ms to finish

What is the latency of a subsequent request that sees a cache miss?

```
GET /books/info/4 [STARTED]
not in cache
http://10.211.55.3:3000/books/info/4
retrieved from db
2
GET /books/info/4 [FINISHED] 122.219 ms
GET /books/info/4 [CLOSED] 124.412 ms
```

The latency of a subsequent request that sees a cache miss:

122.219ms