

## Writeup - Assignment 3

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The performance for the caching server is faster than a server without caching.

Caching has improved performance because we will store data in a cache rather than writing to the disk. This is faster because if we put some data into our cache then we want to access that data we do not need to read it from anywhere. We simply just have to write the saved contents into the place that wants this data. This will also be helpful with replacing a put request that is already in the cache, because that means one file was updated two times but only written to once.

I am unsure of how to put a number on how much faster caching is vs non caching. What I do know is before I process the get or the put from I check to see if they are already in my cache. By checking the cache first for the contents of the request, we will make sure to do gets from the cache and to replace old put with the new put contents and content length.

By simply checking the cache first we will make sure to never read from disk if it is the cache or never write to disk unless that request is least recently used and popped out the cache.

The testing that was done on my server to check proper caching is occurring is:

Do a put request on file1.

Then do a get request on file1.

Then put new contents into file1.

Then do a new get request on file1 which should have the new contents from put.