

# Lab 4 Report

2.1 In a few sentence or using a table (include in your report), compare and explain the major difference between MySQL and SQLite.

SQLite is a public domain, open-source project. It is what is called an “embedded” database which means the DB engine runs as part of your app, which is lightweight and it doesn't require its own process.

MySQL is also open-source but is owned by Oracle. MySQL is a database server so you have to install it somewhere and then connect to it from your app, which is lightweight and it doesn't require its own process, which hold databases that are based on relations.

2.2 In a few sentence or using a table (include in your report), compare Memcached with another popular caching framework Redis, explain why you might want to use one over the other.

Memcached is a simple volatile cache server. It allows you to store key/value pairs where the value is limited to being a string up to 1MB. When you restart memcached your data is gone. This is fine for a cache. You shouldn't store anything important there.

Redis can do the same jobs as memcached can, and can do them better. It can store key/value pairs too. In redis they can even be up to 512MB. You can turn off persistence and it will happily lose your data on restart too. If you want your cache to survive restarts it lets you do that as well. In fact, that's the default. It's super-fast too, often limited by network or memory bandwidth.

Since Redis is much more powerful in many cases like huge storage, fast etc, I would like to use that in huge project building.

2.3 In a few sentence or using a table (include in your report), compare Nginx with Apache Web Server, explain why you might want to use one over the other.

Apache is often chosen by administrators for its flexibility, power, and widespread support. It is extensible through a dynamically loadable module system and can process a large number of interpreted languages without connecting out to separate software.

Nginx is often selected by administrators for its resource efficiency and responsiveness under load. Advocates welcome Nginx's focus on core web server and proxy features.

Since I didn't need to develop very large website and need to improve my project effectively and less the load, I would like to choose nginx for building the website.

Extra Credits:

Redis : Doing caching using Redis

AWS API script : part of yum scripts