CSI 300
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Project 3 Option 2

Introduction

For this option of the final project of CSI 300 you (and optionally a partner) will write a research report explaining a NoSQL database and comparing it to MySQL. You may choose (one of) Couchbase, Redis, Neo4J, Riak, HBase, or Berkeley DB. If you choose to work with a partner, you will both receive the same grade.

Content

To start your report, you should give an overview of the database in question. The reader should understand the major paradigms of the chosen database. For example, if you were to write about Neo4J, the reader should understand that Neo4J is a graph database and should understand what it means for it to be a graph database. Your overview may also explain the database's history and who is behind creating it/funding it.

You should further explain how queries work in the chosen database and how data is stored. What are its typical uses? Your reader should be able to give an "elevator pitch" about the database after reading your report.

Then you must get on with the business of comparing the given database to MySQL. You can assume the reader already understands how MySQL works. Explain the advantages and disadvantages of the given database with respect to MySQL. Show an example of how data may be structured and queried in MySQL versus with the chosen database. Highlight use cases that are ideal for one versus the other.

Sources

As with all work in this class (as described in the Course Outline) you must follow the academic honor principle. Your report should include citations indicating where each piece of information comes from. It's not enough to just list sources at the end, you must cite in the work where the sources are being used. There will be a zero tolerance policy for plagiarism.

You should use sources beyond the website of the database in question (which is likely highly biased). Every database that you can use for the project has at least one book published about it and multiple third party online resources. Do not cite Wikipedia, although it's a fine place to start your research.

Finishing Up

Your final product should be a *minimum* of five pages in length (excluding pictures, bibliography/ works cited, and code examples).