Aprima Medical Software Inc. has developed a service for their clients that allows them to access their medical information for scheduling appointments. The recent concern of customer satisfaction has been brought up, because the current database being used right now is simply just too slow. It takes too long to pull up records and data, and a resolution to this problem has been researched.

The purpose of this project is to find a faster and more efficient database than the current one that is being used, which is SQL. SQL has been up to expectations as far as performance, and it needed to be addressed, because customers are waiting too long for their records to be pulled up. The team’s objective was to research many different databases, and find which ones gave the needed results in the fastest time and in the safest manner, so that Aprima can use this research for a future solution. The team narrowed two databases that match these criteria, MongoDB and RavenDB. After extensive testing, both databases have shown to be substantially faster than SQL, and very safe as well. Queries and functions that are run on SQL were developed for the new databases, so the current data in the Aprima system can be used. In result, two faster databases that are viable have been found at the end of our research.

Our project’s impact is focused on giving Aprima a viable solution to the problem of the slow database that they are using, but also implementing their business models within the new database. New queries that are made replicate the way that SQL functions, and provides the same experience, except it is executes much faster. MongoDB and RavenDB has shown promising results due to their speed, reliability, and compatibility with Aprima’s current architecture. With these new databases given as better options, Aprima is now able to step forward with a potentially new solution.

Our databases had a couple of inconsistencies. We have been testing our research on test data, and haven’t tried it on Aprima’s actual data which could lead to different results. Although our results with the test data came out to be positive, it is not certain how it would hold up against Aprima’s large amount of data.