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Capstone Project

Capstone Conclusion Paper

This capstone project was aimed towards reinforcing and adding new knowledge on coding languages, frameworks, and structures used for web applications. The languages include: C#, asp.net, HTML, JavaScript, CSS, and postgreSQL; while using a Bootstrap framework for the front-end visuals of the web application. The programs used to create this application was through Visual Studio 2015 as well as PgAdmin III; these were actually tools that I have used previously, however, this is the first for me where they have been integrated together by importing a specific package to Visual Studio. There were also challenges that were faced along the way, where some features are missing from the application, which also includes hosting the application on a web server to fully function as a web application. However, this project has successfully built upon and reinforced my knowledge on building applications for web use.

YouTube was one of the major resources that significantly aided the setup process on the application itself. These videos included: <https://youtu.be/gV4iv_PSo9Q>, <https://www.youtube.com/watch?v=mhYv3jJ66EY>, <https://youtu.be/fC3knL29fUM>, as well as a step-by-step guide <http://www.mytecbits.com/microsoft/dot-net/bootstrap-3-0-0-with-asp-net-web-forms>. These links deal with the initial setup to add Bootstrap and a postgreSQL package to Visual Studio in order to begin building the web application. However, they do not implement the MVC model that is provided by Visual Studio, which would have made the entire process to build web applications easier and cleaner. This is just another process to do the same thing using a different structure. What would also be preferred is to implement the web aspect on the application using IIS, as well as using a Windows box in order to host a web server, but due to time constraints, these were unable to be implemented.

Challenges that were faced along the way include hosting the application on a web server, creating better functionality on the website by providing more features (such as editing and removal of books, as well as searching for books and sorting based on university, user, etc.), and improving the front-end design of the website for better accessibility and design. They also included fixing a bug with paging issues, as well as writing postgreSQL statements in C#, which made debugging difficult, as it was difficult to find the source of an issue that was either caused by a typo on the SQL statement, connection problem, incorrect datatypes, or reading and inputing values into the SQL parameter. There was also the limitation of storage space, which restricted the use of Microsoft SQL server, instead of postgreSQL, as well as specific programs and packages which would have made more sense to use rather than the current setup.

Even though the languages and programs listed were used previously, there was still a great deal of work to be done in order to make the application ideal and fully functional. However, there was a better understanding on how web applications projects are built, and more knowledge gained out of the structures, framework, and languages which are used for these projects.