The Spice Rack is an application that’s purpose is to help compile recipes for ease of use for the user. It will use technologies such as web hosting, app development, machine learning, and optical character recognition. The optical character recognition will be used to transform a physically written down recipe into a digital format to be stored into the database. All of the technologies that we are planning on using to create this project have been introduced through previous or current course material. This project combines the current knowledge of the team with proposed technologies that are unfamiliar and set the biggest challenge for this project.

There are some concepts from classes that I’ve taken in the past that I look to use in this project. While I don’t know if the course will call for it, but EECE 3093C Software Engineering help to show what kind of documents a project needs. This course also helped to already show how to complete a project within a timeline since groups had to complete a working project by the end of the semester. The course CS 4092 Database Design will also help in setting up the database that the recipes will be stored in since the course when over how to store and connect database entries. A class that I’m currently taking CS 5167 User Interface will also help in the creation of the web, android, and IOS UI’s for the best possible user experience. The course EECE 5132 Software Test Q&A will help in making sure that all possible inputs are tested properly, and defects are found before the end of the product.

While on my 4 co-ops with Northrop Grumman as a Software Development Co-op, I worked with a variety of technologies. The one most applicable to this project is my web development experience. I have created a simple website from the ground up for co-op, that stored data into a database, and then did calls to that database for general metrics or user searches. I was also able to see that website into it’s testing phase, which helped me to become familiar with the common pitfalls in a website and how to properly test it and find the errors. I also learned how to work effectively on a team to meet deadlines, and to work together to fix mistakes. I also learned that each person has their own strengths that I might not have, so people are just as much of a valuable resource as any sort of search engine.

I am excited to work on this project, because it fills a need that I personally have and need that I’m sure other people have as well. The project also includes technologies that I’ve worked with before and am comfortable with. But it also include technologies that I’ve never heard of before, so this project is also challenging me to step outside of my technical comfort zone. And while this project isn’t very large in scale, this allows time for use to really ensure all of the technologies we set to include in it work well for our purposes, and able to spend time on testing such that defects shouldn’t be found by users after the project is completed. And because this isn’t a large scale project, it will be straight forward to know when the work is completed. I personally know that I have completed my work when the project is able to be confidently released as a quality working product to the public, and know that I’ve done a good job when my contributions work with the other member’s contributions and there are no known defects in any of the code. Since my team has worked together before to create a project a little bit similar to this one, I expect that we will be able to confidently release the product by the end of our senior year.

The approach to designing this project will straightforward. There are three separate frontends, with one common backend and database. Each frontend will have it’s own language, but a common workflow through all of them is possible such as a user could use all of them if they so choose. One of the functionalities would be for the user to input a url, and for the recipe card that’s on that url to be parsed and put into a readable format to be saved into the application’s database. There would also be the ability for the user to manually input a recipe to be stored. And the final main functionality would be to set up a system of machine learning such that a user would be able to upload a picture of a handwritten recipe, and it would convert the picture to a digital text recipe.