

Code Integration

The developed software for project 4, which was the finished product from the prototype from project 3, had its entire code divided into two main units. The two units of the software were the user web interface, and the javascript logic. The web interface unit was the one that should present the users with an interface to interact with, and to be able to use the application, while the javascript logic unit was the one I charge of actually carrying out the functionality of the app, which was the recipe search. These two main units were the ones that needed to be integrated. The team members were divided into two groups, each one in charge of one of the respective units. Therefore, the members of each group worked together on writing the code for each one of the units. This way, integration of the code inside each unit was done by dividing functionalities. This means that each member of the respective team worked in a particular functionality of their respective unit, and then all these functionalities, in the form of functions or methods, were put together in the file. Regarding the software integration, of the logic and interface units, the team implemented a bottom-up integration strategy. This is because in a tree structure, our web interface unit is at the top, and the logic unit below it, as the application is presented via the web interface but it depends on the logic that implements its search functionality. A bottom up integration was used, first testing and implementing the logic unit and once it was verified implementing and testing the web interface, because this strategy was the most convenient to find bugs in our implementation. This is because the proper operation of the web interface depended on the logic unit, so if the logic unit wasn't verified and tested beforehand, a web interface could've been developed but then its operation could've been affected once the logic unit was integrated. Therefore, bottom-up integration strategy reduced the risk of bugs when integrating our two units.