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CSD 460

Professor Langley

Assignment 12.3

Lessons Learned

Overall I had an amazing experience this semester in this course, Web development wise I was not feeling very confident using Java’s JSP and Servlets, but after this course, I would say that I am more comfortable creating Java web apps. While I didn’t originally see myself being the Team Leader, It was great having a different view on a project. Where I would normally just create things as I go, sitting back and actually thinking about what the project needs made a huge difference. Since this was my first time really developing this way, there were a few things that needed to be adjusted towards the end, particularly some MySQL tables and such, I feel like I have a better grasp on developing this way, and if I had to lead another project like this, I would say that I am more confident that I would see little details that might get overlooked.

### As a Team Leader

Being nominated the Team Leader was a bit of a shock, I’m not really a talkative person, and have never led people on a project or anything, usually I am a solo person. My goal as the Team Leader was to make sure that everyone was on track, knew what was going on in a given week, and knew what our current, and next steps were for development. Right as the semester started the team got into a Discord server and I went and set everything up, making separate discussion channels for each week with a list of assignments and their due dates. With some help from John I was also able to set up a channel that gave us updates from the github repo, which would tell us when someone had a PR or a sort of push to the repo. I also made sure that the discord had a list of useful links to our figma page, and github. I made sure to set all this up prior to the first week so that the team would have a strong start and to make sure no one was confused on any of the assignments. Things were a little rushed in the beginning, and this did cause some errors towards the end of the project development, particularly in the MySQL schemas, I forgot to add some crucial things to the reservations table as well as the rooms table, being the amount of guests, and locations for the reservations, and the amount of loyalty points to the room table. Luckily it wasn’t a big deal to change these things, as they aren’t dependent on another table (except the locations). This really taught me to take my time in the future, and think about all the possibilities that need to be accounted for.

### As a Developer

Having a lot of free time, and downtime from work I put it all to use on the project. I started the project with a template from last semester’s Server-Side Development course and got to work on simple login functionality. Having to set everything up was a pain, as it usually has been using Java, but a few weeks into development John was able to convert everything using Gradle and Docker, and development was much smoother after that. When I was talking to John, he sounded like this was stuff he does at his job, so I was able to learn quite a bit from him. John basically threw away the template code from the previous class I was using and introduced a Repository system for our operations. Instead of having one giant Database connection file that would handle operations, he created smaller repositories that would handle each database table's operations. With these repositories he also created a standard set of methods like selectOne and getAll, which really improved development speed. After John had shown us how these repositories worked, I got right to work on creating a repository for each of our database tables. I think that this is the biggest thing that I learned throughout the project, these repositories really made me think in a different way, and they were easy to read and write after looking at the original that John made. Front-End wise, I had a great time building out components in the front end. I used the Tag system to create templates, these handled the general layout and the <head> tag, so If I needed to create adjustments, I would only need to edit one page. For the styling we used Tailwind, I’ve been using tailwind for almost 2 years now, and it is an amazing tool for development, it made creating the front end pieces super easy and fast. I also had to go through a few JavaScript/jQuery libraries to find plugins for the slideshow, and calendar feature, during this I found a great website that has a ton of jQuery libraries with a lot of examples and guides. <https://www.jqueryscript.net/>

Overall I definitely learned a lot about being a leader, and developing using Java Server Pages and Servlets. The team had an amazing experience and everyone was able to contribute to the development of the project. John was a superstar here, making sure that the project could be launched on everyone's device, and that the database connections could be made easily.