Full Stack Web Development Final Project Report – Summer 2018

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The project which I chose for Full Stack Web Development was a Residential Website. Due to this project, I could work on several different web development technologies like bootstrap, jQuery, node.js, express, etc. I am happy that Prof. Simon gave me the opportunity to work on our own and to explore the arena of web development in the way we want to explore, and indeed it was an amazing learning experience.

My project website consists of a homepage, floorplans, amenities provided in the apartment, gallery showing all pictures of my apartment, a location page which shows the Google location of my apartment, and has the contact information. This is the front end of my website which primarily utilizes bootstrap. I have taken photos of my apartment and floorplans mainly from my own residential building website. That is where I stay. The only thing I changed about my own apartment was its name. Its original name is 'CHNW Goose Hollow'. I changed it to 'The Paradise' because always wanted to keep my apartment's name as 'The Paradise'. ☺

It has a login portal for existing users. Residents can login through this portal and get access to facilities like placing maintenance requests, view and pay bills, etc. This is where the backend comes into picture which is implemented using node.js/express. Express is used to do the user authentication. I have referred Jared Hanson's git repo for passport-local authentication as a starting point of my website*. I have also added new user registration in my website, where users are provided with the registration form where they are supposed to give their details. This form adds the new users to the database.

Since I like working with the frontend, I started working on my project frontend right from the fifth week itself. I have used navigation bar exercise by Prof. Simon as a starting point for all my web pages*. And I was done with the designing basic frontend by the end of fifth week. In the sixth week I was trying to figure out how exactly to implement node.js technology for backend since I had windows system in my laptop. Prof. Simon suggested a solution to install VMware, which didn't work out for me, so I ended up in doing whole project in Linux labs. For database part, I first tried working with SQLite3 which consumed my entire remaining time. It was not fulfilling my requirements. It was providing transient database while I wanted a permanent database Then, I tried working with static dataset and authentication. With static dataset, authentication was working well. But, there was no 'database' as such. So, finally I found a way to incorporate database easily by adding Google Firebase as database, and it worked out by the time of final presentation! After that, I worked on new user authentication part, which is also achieved successfully.

As I was working for the first time on these technologies, it was a tough time for me to work out the solutions for my requirements, but in the end, it was a great learning experience for me. I got to know many technical details which I don't think otherwise I would have got to learn. Using online logo makers to create the company logo, integrating forms with cards for login frontend, connecting forms with server for user authentication, using firebase database for websites, integrating Google maps with webpages and so many other things I got to learn. The basic reason for which I joined this class is fulfilled.

*All the references used to build this website are mentioned in the source code as well as in a separate README file submitted along with this report.