

Hamad Saleh Almarzooqi

202103395

### Internet Computing Project Report

After the doctor assigned the project to us, I was sitting in the dormitory when I received a phone call from Mohammad Al Samneh, where he suggested I enter the group with him and Rashid Al Alawi. The next day we met at the university and we started brain storming ideas on what the project could be about where an Idea sparked from the middle of the room that we continue onward from the database project that we did in Spring 2023 and so we did, we decided to meet daily so we can finish fast, then we started sketching designs, what can be improved on the database, what technologies that we can use, after we decided on how we can do it we started dividing the work among ourselves, where Rashid went on to improve on the database design and creating the admin pages, Mohammad went to create some of the html and JSP pages that we needed, and I went on to create the login/signup page, booking page, and the login and booking system. After a week had passed, we were tired of sending zip files to each other. I proposed a solution that we could use GitHub, and it would save us a lot of time. Rashid and Mohammad had not used GitHub before, so I went to teach them the basics of how to use it (git status, git add, git commit, and git push). After that, we had the website done but it was nonfunctional, so we started working on making it functional. We mostly worked using Servlets and JSP, a little bit of JavaScript, and a little bit of Python to create random rooms to insert into the database. Then we started thinking about how we would retrieve the data from the database, so we started creating SQL statements on how we would be able to verify if the login credentials were correct and how we could retrieve the available rooms in between other bookings. After we figured out how we could retrieve the data, we saw a huge security issue: the passwords were not encrypted, so we wrote a SQL statement that would select all the passwords and encrypt them into SHA256. When we finished the project, we started testing it. Mohammad found a few bugs, so we started working on fixing them. For example, if there was a booking for a room A and the arrival was on 2023-11-15 and the departure was on 2023-11-21, if we wanted to book room A on 2023-11-17-2023-11-19, we would be able to, so we spent an entire day trying to fix this issue, and then we ran into another issue that the admin can book a room on any day that he wants to, so we used the same solution and we fixed that issue. After we made the website functional, we started redesigning a few of the pages, for example, the admin page, where he could view all of the accounts. We made some changes to it. After we finished finalizing everything, we met again and started recording the presentation. Now I'm writing the final sentence.

This was a fun project to do.

Hamad Saleh Almarzooqi (202103395)