

# Team Q

## CLOQ

<https://github.com/tmayrand/COMPSCI-326>

### **Team Members:**

Team Member Name	Github Usernames
Arun Dunna	adunna
Darren Farrelly	dfarrelly
Isabel Hagberg	ihagberg
Jane Tangen	onlyNexusHere
Shane Parr	sparr1
Troy Mayrand	tmayrand

### **Overview:**

Our application is an online time clock, that lets employees clock in and out, and managers to moderate their employees. A quick search shows that some time clock applications do exist. They are, however, written as desktop applications or require the use of dedicated hardware. This is not convenient if employees are stationed in a variety of locations, or if they need to change location during the duration of their shift. Having a web-based system allows for a company to let employees quickly access their shift information and punch in or out without the hassle of dedicated hardware. In building a time clock, our web application CLOQ supports many of the basic features that would be required of such a system. These features include user and administrative views, time and attendance management, user scheduling, and the ability to export all of an employees hours worked, and the specific details attached to that.

### **Design Overview:**

In our design we use three separate models: a user model, a time model, and an announcement model. The first model is a user. We keep track of user information such as email, name, and password, as well as the user's type to determine if the user is an administrator or not. The second model is a specific time instance, which we define using a start and end datetime variable, an associated user ID (the user to which the time instance is linked), and the type of time (i.e. is it a punch in/out, or is it a scheduled work time, or is it a time that the linked user has marked as unavailable, etc.). Lastly, the announcement model contains the name and description for the announcement, as well as the datetime of it and the user type to display the announcement to (i.e. is it admin only?). Doing our models as described is the simplest way to keep track of all of our data, sort and filter times efficiently as we are developing a timeclock, and minimize the amount of models that we have to use.

### **Summary of Successes and Failures**

We successfully developed the data model in decent time, but one issue we had was that once we populated the database, we would deem a data type inefficient and would change it. When this happened, we had to take extra time to go back and redesign our model to fit the newer, data type. Additionally, while we currently require two separate time instances to model a single punch in/out, we plan to address it in the future by either modifying the data model, or modifying the end time field of the

punch time instance when the user clocks out, instead of creating a new punch out time instance. Another problem we had was that our data models were rather difficult to use to convert to the needed templates.

### **Troy's Self-Evaluation (20%):**

For project two I mainly worked on importing data into the database (to some extent I helped Arun design the original model for our database). This consisted of creating schedules for a 1 week period of time, and the creation of user, announcement, and time object. In total I created approximately 68 unique data objects. In order to improve my quality of life I also needed to make modifications to 'models.py' and 'admin.py'.

I believe that I have contributed about ~20% of work towards submission of project 2.

### **Arun's Self-Evaluation (25%)**

I completed all of Part 0 as well as designed the data models, implemented the models, and developed the data model diagram for Task #1 and Task#2 in Part 1. I also wrote portions of the team write up, and assisted where else I was needed (such as with Git version control). In total, I would say I did close to 20 to 25% of the work, though I don't think "percentage of work" is an easy metric nor a fair one to describe when we all have our strengths. For example, I have background with Django and web development, so developing models and the backend is much quicker for me (so less work for me) than doing a team write up - but by the rubric, the first would be more work. So just take the percentages with a grain of salt I guess. I think I ended up doing more of the amount of work, but in how much effort I put in, I put in the same as pretty much everyone else.

### **Jane's Self-Evaluation (25%)**

I worked on part 2 of the project. I brought over all the html templates from project 1, and set up basic template files and all the html files to load css and js properly. I made sure all the pages look like project 1 pages even with separation from the sidebar. I also added database data to the sidebar (template.html), dash, admin\_dash, and schedule. I definitely did around 25% of the project, partially because we underestimated the work needed for part 2 of the project.

### **Isabel's Self-Evaluation (5%):**

I worked on the team write up. I feel like I did barely any work, so my contribution percentage is 5%, but should honestly be less than that. When we split up the work, everyone decided on having groups of two team members assigned to work on each part, which resulted in some people having much much more work than others. I felt that this was unfair to other members who were spending hours on their part, while I finished my work in 15 mins. I should have helped them more, but I was very bogged down on other work for the past few weeks. Overall, for the next project I think we have learned that we need to divvy up the work more evenly.

### **Shane's Self-Evaluation (20%):**

I worked on the views file and loading data dynamically into the html (so part 2). I set up all the urls to map to the respective templated HTML which Jane wrote. Additionally, I fixed the dashboard links. I was supposed to add database data to three of the pages (admin\_schedule, settings, and availability), but the pages ended up being really challenging. I spent a lot of time debugging and trying to get data into the admin\_schedule page, which was the only one I ended up finishing. Overall, I probably did around 20% of the work this time around, seeing as how I worked in several different sessions for a few hours each.

**Darren Self-Evaluation (5%)**

I worked on the team write up during project 2. Before spring break, when we were splitting up the work, we paired off in teams of 2 with groups doing url mapping, models, and the write up. While it was decided as a team, the assignments were uneven and I should have made more of an effort to assist my teammates at the least. The other groups on our team put in a lot more time and effort into this assignment that took them hours to complete. On the next project we need to split up the work more evenly and I plan on being more involved with my teammates.