Nicholas Anderson
Carli Martinez
Brandon Thomas
Ryan Wallace

ShiftCreator
Team Project – D.5 Release 1
CS 386 – Software Engineering
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Prof. Dr. Marco Gerosa

1. Introduction

In this week of D.5, we created the site in which Carli started for us, then Nick worked on the list part of gathering the available shift for the employee which then he rearranged into a list of the weekly shift showing the number of employee and their hours of working the day of the week.

The MVP of the project is creating the website which is able to generate some schedule into a list from the hours of the business inputted then the number of employee and the Available shift of the employee.

GitHub Link:
https://github.com/csmartinez/job-scheduler
Trello link:
https://trello.com/b/xWYGWFAX/groot-group-cs-386-shiftcreator

2. Implemented requirements

ShiftCreator's website was created with inputting open hours of the store and information of number of employees. Filtering employees by available days when filling the schedule is working, although not currently broken down by time of day. ShiftCreator generates and displays the weekly schedule as a list starting with Monday, with the first employee hour of available listed going down the week.

3. Adopted technologies

Bootstrap stylesheet and bootswatch stylesheet for easy styling to make our application look and feel professional with ease while we focus on the algorithm to generate and assign shifts. Uses HTML, CSS and Javascript which are known by most if not all web browsers so our software can be accessible by anyone with a computer, internet and a web browser which is most people. Also, these languages are common and have a lot of resources available to help us throughout the development process.

4. Licensing

For our project we used the MIT License. This license is used often for groups who are learning and have open source code. It protects your work while maintaining a free license.

MIT License - Free and limited, restrictive license.

5. Look & feel

Our interface has a clean look with easy to read black and white colors that contrast very well with each other. The bootswatch stylesheet used has a professional look and works nicely in the business context. The ‘next’ buttons guide the user through the form and at one point even dynamically adds fields based on a number the user enters in, which can also be re-entered and thus re-calculated. This makes it easy for the user to change their mind and go back.

6. Learning/training

Our team had a variable amount of web development experience to start with. We used group coding sessions to help members learn web development and the languages we are using quickly. For areas completely unknown to all members, like persistent data, we had everyone research topics on their own. At group meetings this allowed us to have a variety options to discuss and compare. Since this is a webapp, our main sources of reference were w3schools.com and developer.mozilla.org.

7. Lessons learned

Data storage for web applications is a more complicated subject than originally thought at the beginning of the project. Currently data is not persistent and makes the first release cumbersome to use. Considering that ease of use is one of design goals, the highest priority for the next release is to finalize persistent data. Additionally handling time in an application can introduce unforeseen issues. We ended up converting between a more comfortable AM/PM format, displayed to the user, to a easier to code with 24hr format on the back end. Another issue that came up during development is that javascript does not have the ability to import other javascript files. This required rethinking of how we are going to structure our code. Unfortunately it means a large javascript file in the current release. We are exploring some

preprocessors, that would go through and combine all javascript for the browser but let us develop in individual files.

8. Demo

The demo video can be found on YouTube via the following link:
https://youtu.be/rhMQ_IrSXmQ

9. Group participation

Nicholas Anderson - Wrote code to extract data from webpage to fill data structures, code to generate and display schedule. Created and uploaded demo video. Helped fill in D.5 deliverable. 25%
Carli Martinez - Started web project on GitHub, created a home page for the website, as well as bootstrap and bootwach styling and javascript. Created the form in HTML and Javascript that dynamically adds fields as necessary. 25%
Brandon Thomas - The Introduction, the implementation and requirement and the learning/training. Wrote up weekly meeting minutes. 25%
Ryan Wallace - Wrote HTML and helped code JavaScript, coordinated group meeting room at library, Helped with D.5 25%