
“The Company” Portal

Project Report

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Table of Contents

| | |
|--|----------|
| Project Description | 2 |
| Project Tracker - GitHub project board | 2 |
| Video Demo | 3 |
| Repository Link | 3 |
| Contributions | 4 |
| Michael Munhbold | 4 |
| Leonora Stiernborg | 4 |
| Birwa Balar | 4 |
| Kalli Davidson | 4 |
| Beauregard Cave | 4 |
| Joshua Dinerman | 5 |
| Use Case Diagram | 5 |
| Test Results | 6 |
| User Account Access | 6 |
| Employee Viewership of Data | 6 |
| Data Management | 7 |
| Deployment | 7 |
| Live Deployment (Functional as of 10:22pm, 12/2/22). | 7 |

Project Description

Companies everywhere rely on their employees to practice good communication, not only to their managers, but also to their team and other teams within the company. Our company portal is a one stop shop for employees and managers to assess, manage, and assign employee projects, ensuring all information is organized and well communicated. When first using the site, the user will be prompted to enter a username, a password, and their first and last name into the registration page. They can then click the register button and will be redirected to the login page. Their username, full name, and hashed password are added to the users table in the database. On the projects page, the user can view the projects they are assigned to, the project lead of that project, the other employees assigned to that project, and their manager. Administrators will assign and have ability to view all projects company-wide, and employee progress on their projects.

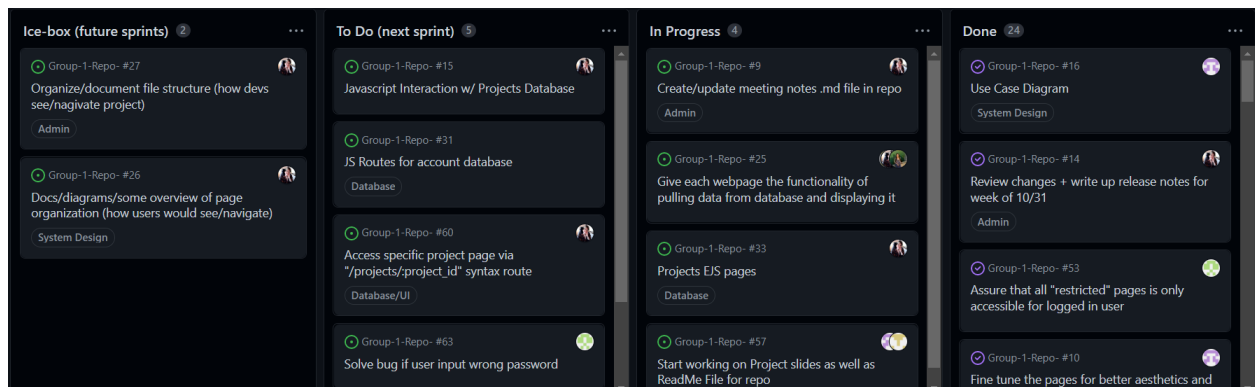
With this platform, companies can easily keep track of their employees' progress, as well as assign new projects for their employees. Our site allows for smooth management of project teams all on a remote base. Managers can effortlessly view all employee information within the company to provide effective leadership to their company's teams all in an organized fashion.

Project Tracker - GitHub project board

Link to your Project Board:

<https://github.com/users/balarbirwa/projects/3>

Screenshot of Project Board:



Video Demo

Our video is available at the following URL:

<https://www.youtube.com/watch?v=nkFTgncgUBQ>

Footage recorded by Leonora, voiceover provided by Beauregard.

Repository Link

Public Repository Link: <https://github.com/balarbirwa/Group-1-Repo->

This repository includes:

- Source Code
- Test Cases
- Video demo
- README.md in GitHub
- Project documentation
- Project Board

Contributions

Michael Munhbold

I contributed to the project by working on all the fundamental front end user interface. I created a header and footer partial to be accessed on every pages. I used bootstrap in order to create a dropdown menu, which allowed for the header navigation bar to look less cluttered. I then created some pages such as register, login, and profile using EJS and HTML. When making the pages I decided to make the pages simple and understandable to avoid the risk of creating too many elements that could cause a user to become confused while trying to use the webservice.

Leonora Stiernborg

I contributed to the project by working with implementing the back end APIs using node.js and some of the data visualization for the frontend. This included the login and register functionality that I then implemented in the frontend. This included implementing session management for user data. Apart from that I created APIs for fetching different data for a user. Implementing this I mostly worked with Node.js and postgresSQL but also EJS and HTML to test the functionality and implement some parts of the visualization of the data.

Birwa Balar

I was mainly working on getting the pages the functionality to pull data from the database and display it onto the site. This was for the projects page for each employee, pulling data such as employee information, the manager, the project name and description, and other employees working on the same project. I also worked on formatting the display of this data with the use of EJS and HTML to get the data displayed correctly on the site. I was also the scribe for the team thus I took weekly meeting notes and pushed them onto the repository.

Kalli Davidson

I contributed to the project by helping work on getting the register and login functions to work properly with the database.

Beauregard Cave

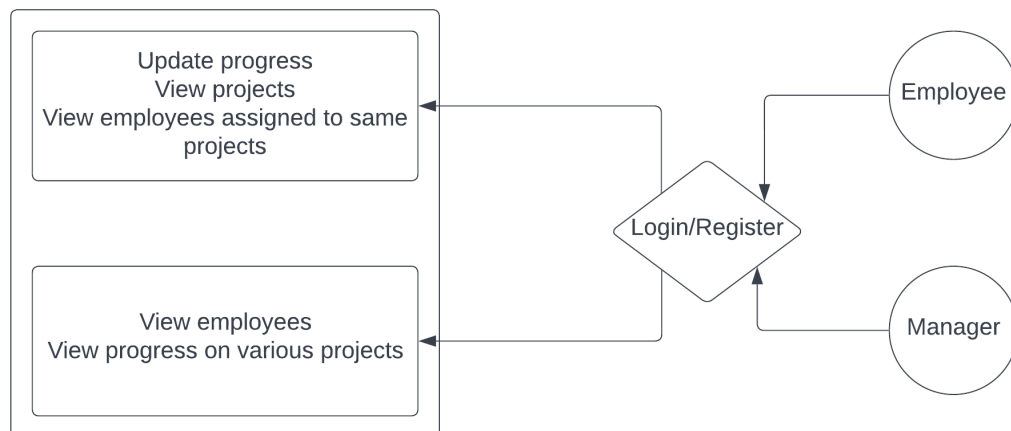
I helped to plan out our project roadmap/agenda, and kept track of the various discussions/tasks/concerns that we'd bring up in our weekly team meetings; a secondary/substitute scribe when needed. I worked on the project pages; javascript routes to get project data & the EJS pages to display that data. I helped build the displayed menus (ex. the employee menu). I also worked on debugging various JS bugs and updating UI elements (in projects, register/login, profile pages) when needed. I formatted & helped to write the project

report, specifically authored the deployment & testing results sections, and assisted in making the video demo.

Joshua Dinerman

I was primarily in charge of the database. My primary development tools included VSCode, PostgreSQL, Docker, NodeJS, and Google Drawings. I created and updated a database diagram and ensured that it remained consistent with our current implementation. I also created and populated the database, updating it as needed throughout the project. I worked with other members to define the database requests and interactions. Beyond direct features, I led the weekly TA meetings and ensured that our Agile practices were going smoothly. This included ensuring the project board was up to date and that all team members had taken tasks that suited their abilities and interests.

Use Case Diagram



Test Results

As our program is a fairly simple one, our tests can be categorized into the following: (1) User Account Access, (2) Employee Viewership of Data, and (3) Data Management (by “Manager” Users).

User Account Access

Our User Account Access tests were all successful. We tested four use cases: registration of a new user, logging in (by an existing user), handling of incorrect login credentials, and handling of a registration attempt for an already-existing user.

Given how ubiquitous this type of UI design is, testers didn’t deviate from expected behavior in any notable way. In our testing, we found a bug in our registration back-end that prevented new users from being added to the database, so we devoted some time to repairing that error (and successfully did so). There were no other major deviations or bugs that stood out from this testing category, and testers entered the information as expected.

Success cases for each test (respectively) were: a new user is added to the database (registration), an existing user’s credentials are validated and they are sent to their profile page (logging in), a user is redirected to the login page & *not* their profile page (incorrect credentials), and a user is redirected to the register page without being added to the database (username already taken).

All of those success criteria were met for each test (after debugging the back-end error).

Employee Viewership of Data

To test an employee’s ability to view data, we looked at two possible views: an employee can view relevant projects and associated employees, and a manager employee can view all employees under their supervision.

Our first test (viewing projects) had a two-part success case: first, an employee can view the projects they are assigned to, and second, an employee can view the other employees assigned to a given project. This case was half met in our implementation; an employee can view projects they are assigned to (categorized by current and complete) in their profile page and their projects menu. However, they cannot view other employees that share a project (a feature cut for time later in development).

The manager views of the website were ultimately cut in order to focus on delivering the most important aspects of the project. The “view all subordinate employees” feature would have been successful if the manager could view a menu of their assigned employees with full and

complete data about each employee (taken from that employee's account data). This case was not met as the feature was cut.

Data Management

Our data management tests revolved around the Manager user being able to update/alter functionality of the website/other users' accounts. We planned to test promotion (one manager upgrading other accounts to manager rank), employee assignment (updating the database to assign users new projects or remove them from old ones), and project management (creating new projects or updating old projects).

Upon success, a manager would be able to make meaningful and visible changes to the relevant database items (a user's rank, a user's assigned projects, the projects table). However, management features such as these were cut later in development, and thus none of these success cases were met.

Deployment

Live Deployment (Functional as of 11:21pm, 12/2/22).

To deploy "*The Company*" Portal, we uploaded the main branch of our GitHub repository (serving as our final deliverable) to a group member (Beau's) private CU Boulder IaaS server. Then, via the rootless-docker installation in that server, we deployed the program to an available port (**49158**, in this case). To test the success of the deployment, the website was accessed (successfully) on three different machines.

Users can access the portal via the above URL. Existing users are able to sign into their accounts and can navigate via our menu (to view projects, other employees, and their own profile). New users are directed to the register page, where they can sign up for an account, and then access the same features as an existing user.

At this time, the user should not need any external applications to run/access our portal.