

# Sprint 3 Digital Documentation

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#### BY AD CO.:

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# **OVERVIEW**

## **Project Summary**

AD Co. will create an Office Hours Queue Management System to streamline the process for students and faculty. The website will be user-friendly and visually appealing, developed using C#, HTML, and CSS and hosted on Amazon Web Services. Users can manage their office hours slots, view live queues, access student information, and receive notifications. UX/UI Engineers will design visually appealing pages that fit the client's needs. The team will work closely with stakeholders to gather feedback and ensure that the website meets their requirements. Following UX/UI principles and branding, the goal is to create an efficient system that makes the office hours process easier and more efficient for all stakeholders involved.

# **Design Question**

How can we improve the experience of college students and professors scheduling office hours through an interface that allows them to monitor queues in real-time and get notified when they're ready to be seen?

#### **Current Scenario**

The OfficeOurs System by AD Co. is a web-based platform that streamlines the office hours process for students and professors. Our system allows users to easily manage their office hours slots, view real-time queues, access student information, and receive notifications when professors are ready to meet with them. OfficeOurs is currently going through a "remodel" to work through some bugs and elevate it's features like: the edit information modal on account pages, ensuring accurate data is displayed on the dashboard, and adjusting the search bar to properly filter.

#### **User Needs**

- 1. Professors need to be able to notify students that they are ready to be seen through an effective notification.
- 2. Professors need to be able to modify the order of students to prioritize ones who were not able to get seen previously.
- 3. Professors need an accurate dashboard displaying all their office hour statistics.
- 4. Students need to be able to attach a reasoning to their office hours sign-up, so professors can prepare for the meeting.
- 5. Students need to be able to quickly search and find the professor they are trying to find office hours for.

### **Technical Goals**

- Get data on the faculty home page working
  - Attendance Rate
  - Average Meeting Time
- Have an easier path to edit office hours, change view upcoming language to create or edit office hours
- Confirmation before deleting an office hours

#### **UI Solution**

- 1. Dashboard: The Dashboard provides an overview of todays office hours, classes, and a data dashboard for professors.
- 2. Live Queue: The Live Queue page displays the real-time queue of a professors current office hours slot. Students can easily view their position in the queue and estimate the wait time. Professors have the ability to manage their queue and adjust priority as needed.
- 3. Account Pages: The Account pages provide users with the ability to edit their personal information, such as their name, email address, and office hours availability using information modals.
- 4. Search Bar: The search bar has been updated to properly filter through the available professors based on their name or subject area.
- 5. Notifications: To ensure that students receive timely notifications, we have integrated email notifications that alert them when a professor is ready to meet with them.

# **Object Oriented Programming**

During our development phase of web application, AD.CO utilized the object-oriented programming model to help with the software design. A quintessential part of object-oriented systems is classes of objects. Our project uses multiple data classes to represent relevant objects. Both our object and variables use getters and setters, another quintessential part of object-oriented programming. Finally, our project uses the Asp.Net framework and C#, both support object-oriented programming.

# **AWS Overview & Pricing**

# **USER NARRATIVE**

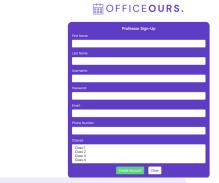
# **Landing Page**

This is where the user lands immediately after opening the application. Here they are presented with two options, one to log in to the service and one to create an account. This allows the user to easily navigate to their needed page.



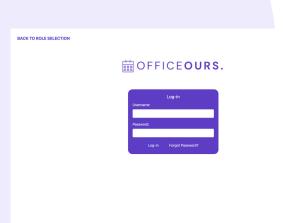
# Sign-Up Page

This is where a user will land if it is their first time on the application and they don't have an account. Here they will be asked to fill out all the forms needed to successfully create an account.



# Log-In Page

Here is where a user will navigate to any other time they land on the application other than the first. This page allows users to quickly enter to the application through specified credentials.

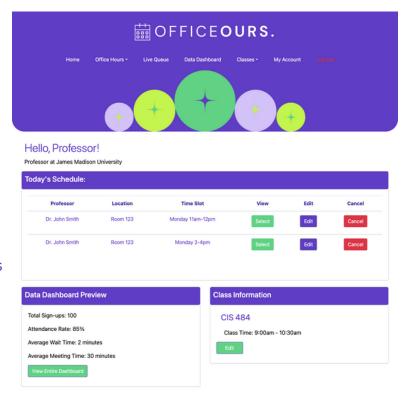


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## **Home Page**

#### **Professor Side**

After the sign up or log in the user will land on the homepage where a there is a simple to use navigation bar with dropdown tabs to allow for quicker movement between pages. Underneath the nav bar is a welcome message and organized cards to provide a quick glance at any of the most needed features as well as buttons to navigate to the page. First, there is an office hours card to preview any set office hours for the current date. Then a data dashboard preview to easily track changing statistics. Finally, a my classes card to show all the classes the professor has actively created.



#### **Student Side**

After the student signs up or logs in, the user will land on the homepage where there is a simple to use navigation bar with dropdowns and a search to allow for quicker movement between pages. Under the navigation bar is a welcome message and two cards to give an overview of the students classes and upcoming/current queues. These cards include buttons which make it easier to directly access pages with more class and queue information.



# Office Hours - View/Edit

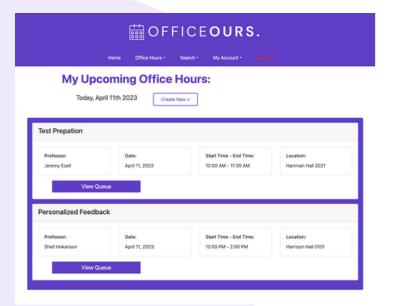
#### **Professor Side**

On this page the user gets a preview of all of their set upcoming office hours. A filter by date button is placed at the top so the user can quickly edit the page for desired results. Next to it, lays a create new button so the user can quickly jump to the page if they realize they are missing an office hours slot. Within each office hours schedule the user can quickly view the start and end time, the location, and the number of students currently in the queue. They are also presented with the buttons to view the queue, cancel the time slot, or edit the current information to simplify any moves they may potentially need to make from this page.



#### **Student Side**

In the "Office Hours" tab, the user has the option to either view their upcoming office hours or sign up for new slots. The upcoming office hours are displayed in cards with the reason for attending in the top left corner and professors name, date, time, and location inside each card. In each individual card, there is a button where the user can view more information about the queue including their current position and estimated wait time.



#### **Office Hours**

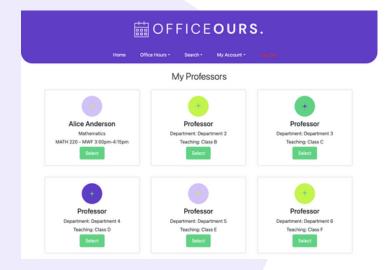
#### **Professor Side - Create New**

Here the user is presented with the form to fill out all the needed information to create a new office hours slot. This page contains special forms to account for any information the user may enter like times or dates. This page also includes an option to make the office hours time recurring for a specified period to negate any need for multiple entries for the same hours. This will immediately add any new times to both the upcoming office hours tab, as well as, on the homepage on the day of scheduled hours.



#### Student Side - Sign Up

In the Office Hours dropdown or at the top of the Office Hours page, there is a button that can be clicked to easily enter new queue(s). This button will bring the user to a page of all their current professors where they can view available queues and join the one they would like.



#### **Live Queue**

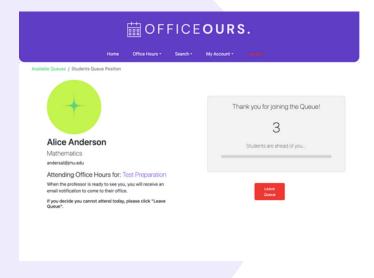
#### **Professor Side**

On this page the user will be able to view the queue for the specified office hours. They are presented with the number of students within the queue and the cards containing the information for each student. Within each student card the user has the ability to quickly execute any need they may need to. These needs may include: notifying the student you are ready, marking the meeting as complete, making a student preferred, marking a no show, or view the details about the meeting.



#### **Student Side**

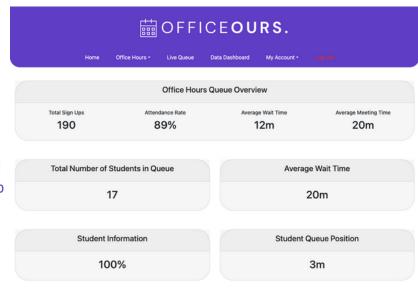
After selecting a time slot to enter the queue for, the user will be presented with a "join queue" page with a dropdown to select a reason for attending. From there, the user can choose whether to upload materials (such as papers, worksheets, etc.) to go over, or simply enter the queue. The user will then enter a page where they are shown their estimated wait time and their spot in the queue, as well as an option to leave the queue.



#### **Data Dashboard**

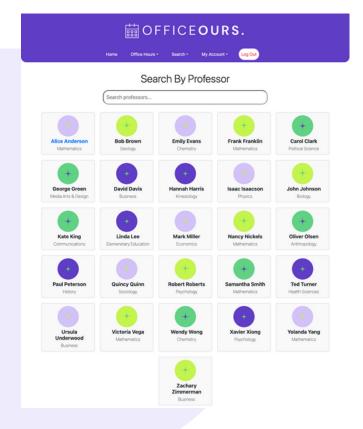
#### **Professor Only**

Here the user will land on a convenient dashboard that present the data that the application will keep track of. The wait time and visitors per day cards are displayed in graphs to allow the user to understand the data in the quickest and easiest way. This dashboard will keep track of the data through processing the information received from the office hours meetings and present it in a beneficial way.



# Search by Professor Student Only

On this page, the user can search for a Professor by name or department and can easily view their available office hours queues. This feature was added after user feedback noted that it would be much more intuitive to have a professor search. Each professor's card displays identifying information such as name, department, and a profile picture.



# My Classes - Add

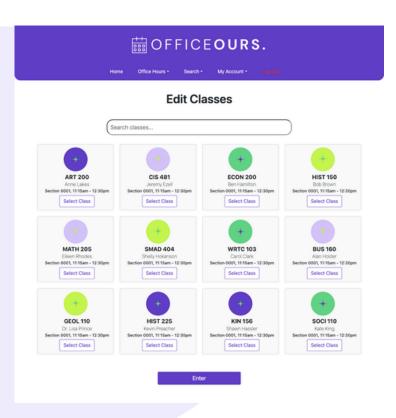
#### **Professor Side**

Here the user has the ability to add their class to the system. This form also contains boxes created specifically to input things like times and dates.By creating a class, students will be able to find available office hours simpler and adds in the ability for a professor to set different office hours slots to be available strictly to designated classes.



#### **Student Side**

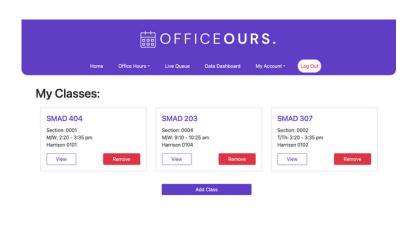
On this page, the user has the ability to add new classes to their account. It features cards for each class, with a button to select/deselect each class. After the user has selected all of their enrolled classes, they may press the "enter" button at the bottom of the page to save their changes. This page also features a search bar to easily find classes to add/remove.



#### **Classes - View**

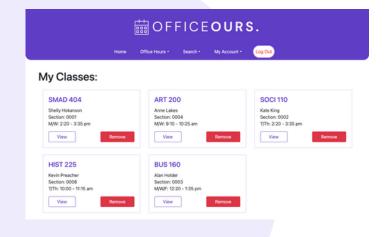
#### **Professor Side**

here the user can see an overview of all of their active classes to date along with all the information given about the class, so the user can easily distinguish which class they will edit. They are also given a button on the top to jump to the add classes page to limit any unnecessary clicks within the page. The user has two buttons for each given class that allows the class to be edited or deleted without having to move pages and waste time.



#### **Student Side**

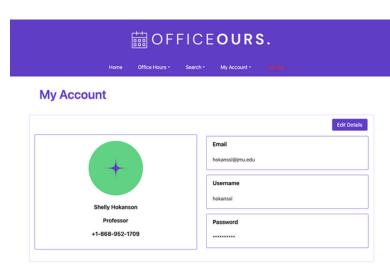
On this page, the user can view the classes they are currently enrolled in, along with important information about them. Users are immediately shown the class name, professor, and days/times the class is held on. Each class card has a "view" button where the user can view more in-depth information and a "remove" button which will remove the class from the users enrollments.



## My Account

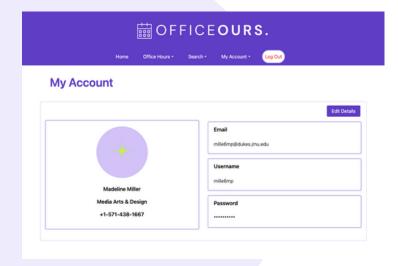
#### **Professor Side**

Here the user is shown a form that allows them to edit any of the information they put in while creating their account. This allows an easy location for the user to make important changes to their account. Any changes within this page will automatically applied to all others, so if a user wants to change their password they can do that and immediately see the outcome.



#### **Student Side**

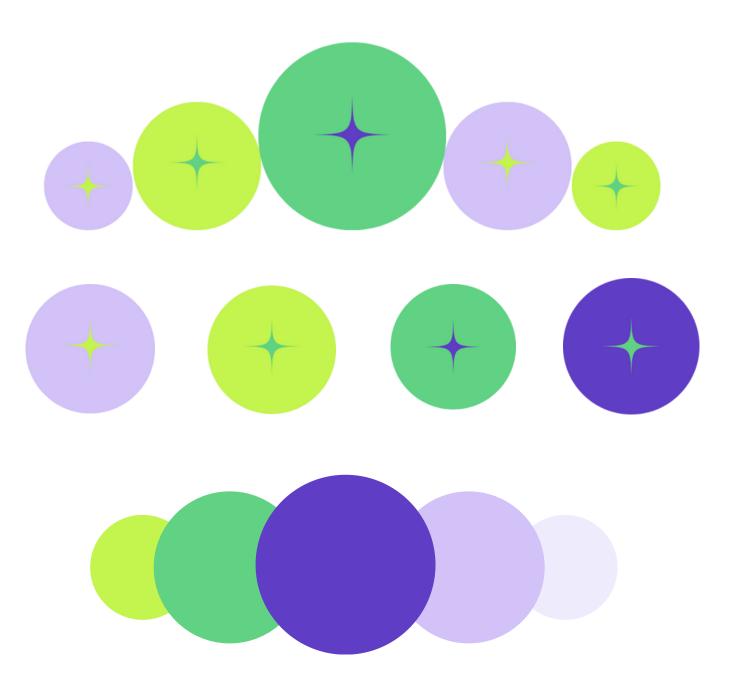
On the "My Account" page, the user is shown a profile page with a button that says "edit details". This button opens a form that allows them to edit the information they entered while creating their account. The My Account provides a central location for users to make important changes to their personal information and account. Any changes within this page will automatically applied to all others, so if a user wants to change their password they can do that and immediately see the outcome.



# **BRANDING**



# OFFICEOURS.



# PROJECT GOALS & USER STORIES

#### **Notification System**

As a professor, I want a notification to go to the student when I am ready to meet, and give them 5 minutes to arrive so that the meetings are efficient and on time.

#### **Priority System**

As a professor, I want to implement a priority system that will allow me to "over-ride" the priority order and prioritize students with urgent needs or emergencies.

#### Reason Dropdown

As a professor, I want my students to be able to pick the purpose for the visit from a drop-down menu so I can plan accordingly and maximize my time.

#### **Live Queue**

As a student, I want to be able to see how many are in the queue before me or where I am in the queue so that I can plan my visit accordingly and minimize my waiting time.

#### Search Bar

As a student, I want to be able to search by my professors name to easily find them and their available office hours.

# **PERSONAS**

#### **PROFILE:**

Gender: Age:

Male

School: James Madison

University

# TECHNOLOGY SKILLS:

Software

\*\*\*\*

Social Media

\*\*\*

Mobile App ★★★☆



#### Professor Smith Economics Professor

#### **BIOGRAPHY:**

Smith is an accommodating instructor who holds office hours daily and values an application that streamlines the process of anything and makes it easier.

#### **NEEDS**

As a busy professor, I need the system to save me time and effort in managing office hours, so I can focus on teaching and research. I need an easy-to-use system that allows me to manage my office hours slots, view live queues, and notify students when I'm ready to meet with them. It's important that the system is intuitive and visually appealing, so I can navigate it quickly and efficiently.

#### **BACKGROUND**

Daniel is a college junior majoring in computer science. He is an ambitious student who is passionate about programming and is always looking for ways to improve his skills. He is a dedicated student who takes his education seriously and strives to achieve academic success.

#### **CHALLENGES**

One of the main challenges Daniel faces is time management. He is always busy with coursework and other activities, which makes it difficult for him to attend office hours regularly. He also struggles with long wait times, which can be frustrating and lead to missed opportunities.



#### **Daniel Young**

Gender: Male

Age: 21
Major: Economics

Occupation: College

Student

#### **GOALS & NEEDS**

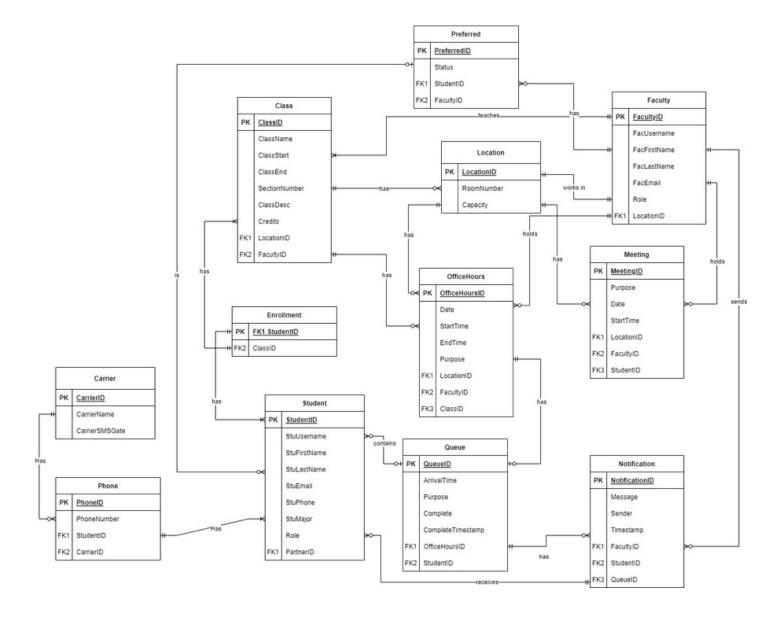
Daniel regularly attends office hours to seek guidance from his professors on coursework and to better understand complex topics. However, he often experiences long wait times and sometimes misses his turn due to competing priorities. Therefore, he is looking for a more efficient way to manage his time while ensuring he receives the help he needs. He needs a system that allows him to easily schedule appointments and view real-time queue status, as well as receive timely notifications when it's his turn to meet with a professor.

Daniel's goal is to use a reliable office hours queue management system that allows him to easily find professors, view real-time queue status, and receive timely notifications. He wants a system that is user-friendly and efficient, which will help him manage his time better and ensure he receives the help he needs to succeed in his coursewerk.

# INTERVIEW FINDINGS

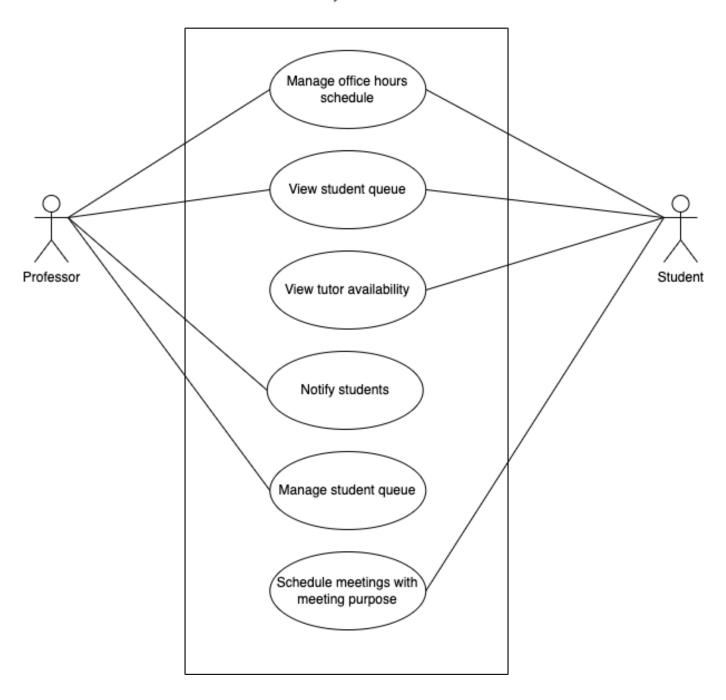
- 1. Professors want to be able to set their availability for office hours in advance and be able to update it easily if needed. They want to have control over their availability and be able to communicate changes to their students.
- 2. Students want to be able to see the availability of different professors so they can choose the best time slot for them.
- 3. Both professors and students want a system that sends notifications about when the professor is ready to see them, either through email or a mobile app.
- 4. Professors want to be able to see a list of students who have signed up for their office hours and any notes or reasons they may have added during sign-up.
- 5. Students want a system that allows them to cancel or reschedule their queue slot easily, without having to email the professor directly.
- 6. Both professors and students want a user-friendly interface that is easy to navigate and does not require a lot of training or technical knowledge to use.
- 7. Professors want a system that allows them to prioritize certain students, such as those who need extra help or are struggling in the course.
- 8. Students want a system that is fair and transparent, so they can see how the queue is managed and know when it is their turn to meet with the professor.
- 9. Both professors and students want a system that is reliable and does not experience downtime or technical issues, as this can be disruptive to the scheduling process.
- 10. Professors want to be able to view data and analytics about their office hours, such as how many students they have met with, how long each appointment lasted, and what topics were discussed. This can help them improve their teaching and identify areas where students may be struggling.

# **ERD**

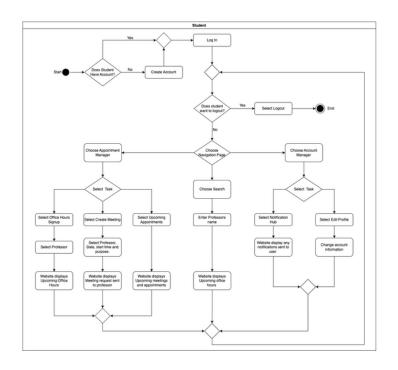


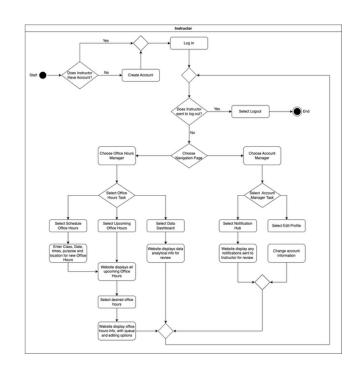
# **USE CASE**

#### System



# **FLOW DIAGRAM**





# **GETTING STARTED**

# LINK & LOG IN TO LIVE SYSTEM

http://officeours.us-east-1.elasticbeanstalk.com/

#### Log In

#### Students:

- Username: acybyk20 Password: Password123
- Username: devinroche13 Password: Password213
- Username: ryancun99 Password: Password321

#### Faculty:

- Username: ezelljd Password: Password456Username: mitrimx Password: Password564
- Username: dillontw Password: Password654

# GITHUB LINK TO FRONT-END SYSTEM



https://github.com/mille6mp/Sprint3-Profiles

# **NEXT STEPS**

The next steps for our system include minor bugs fixes and improvements. In the future our group would love to be able to increase accessibility of our webpage so we can properly serve the disabled community. We have some of the infrastructure for text notifications and account authentication codes to be sent through texts, but have not fully implemented these ideas. Additionally, it would be optimal to connect our webpage to Canvas to get the most accurate and complete user data possible, as well as prevent account spoofing. Otherwise, next steps include minor bug fixes as needed and longer testing periods with more data.