

JMG Student Site Check-in Application

User Interface Design Document

Client

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Developer



Cyber Cookie

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University of Maine
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I. Introduction

The JMG Student Site Check-In Application is a service that aims to automate the process of JMG students notifying teachers of their attendance at an event outside of school that is counted towards course credit. This is a capstone project for Elijah Caret, Michael Ferris, Xingzhou Luo, and Spencer Morse in partial fulfillment of the Computer Science BS degree for the University of Maine.

1. Purpose of the Document

The purpose of this document is to process the product requirements into a more detailed format and capture the details of the software user interface into a written document. The content within this document will include the user interface design standards within the system, a walkthrough of the user interface, a description of the data items that will be used in the system, and any report formats used if any.

2. References

Framer. *A Free Prototyping Tool for Teams (2021)*. Retrieved November 29, 2021, from [Framer: A Free Prototyping Tool for Teams](#)

See “*System Requirements Specification*” and “*System Design Document*” for further information.

II. User Interface Standards

This section provides a general graphical user interface mockup. The JMG Student Check-in is directly split into 5 sections: the home page, the curriculum page, the assessment page, the profile page, and the credential page. Other webpages (including variations for the student user, the instructor user, and the administrator) are discussed in Section III. Figure II.1 shows the home page view. Some general information of the website is shown to the user, including JMG introduction, FAQs, and contacts. Figure II.2 shows the curriculum page view. Available courses and their schedules will be listed here. Figure II.3 shows the assessment page view. The user can access to their course assessment form here. Figure II.4 shows the profile page. The user can view and edit its full name, school name, and ID here. Figure II.5 shows the credential page view. A user must login or signup before using features on the website. The user can also find back its credentials using email verification.

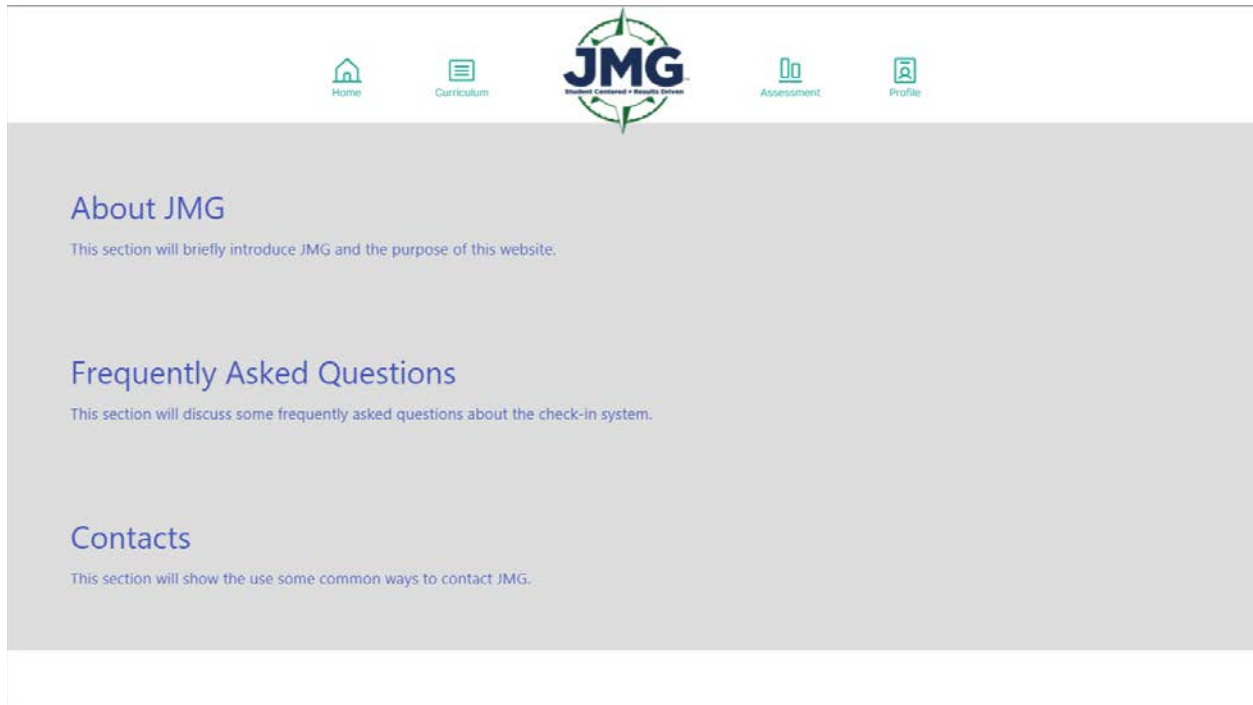


Figure II.1: The home page view of the system. There are three sections, including “About JMG”, “Frequently Asked Questions”, and “Contacts”.

The screenshot shows the curriculum page of the JMG system. The header is the same as in Figure II.1. The main content area is titled 'Curriculum' and displays a table of available courses and their schedules. The table has columns for the days of the week (Monday, Tuesday, Wednesday, Thursday, Friday) and rows for the time slots (08:00 AM, 09:00 AM, 10:00 AM, 11:00 AM, 12:00 PM, 01:00 PM). The courses listed are COS 397, COS 490, COS 331, and COS 497.

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00 AM	COS 397		COS 397		
09:00 AM					
10:00 AM		COS 490		COS 490	
11:00 AM	COS 331		COS 331		COS 331
12:00 PM					
01:00 PM	COS 497		COS 497		

Figure II.2: The curriculum page view. Available courses and their schedules will be listed here.

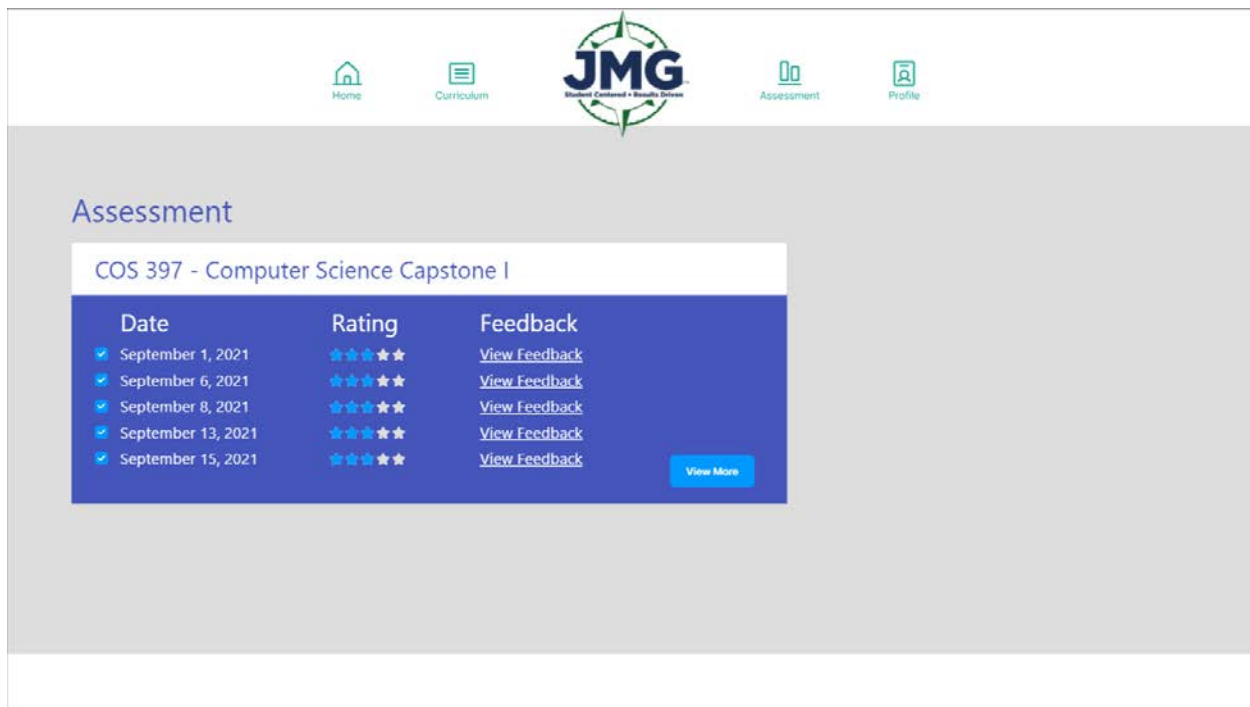


Figure II.3: The assessment page view. The user can access to their course assessment form here.

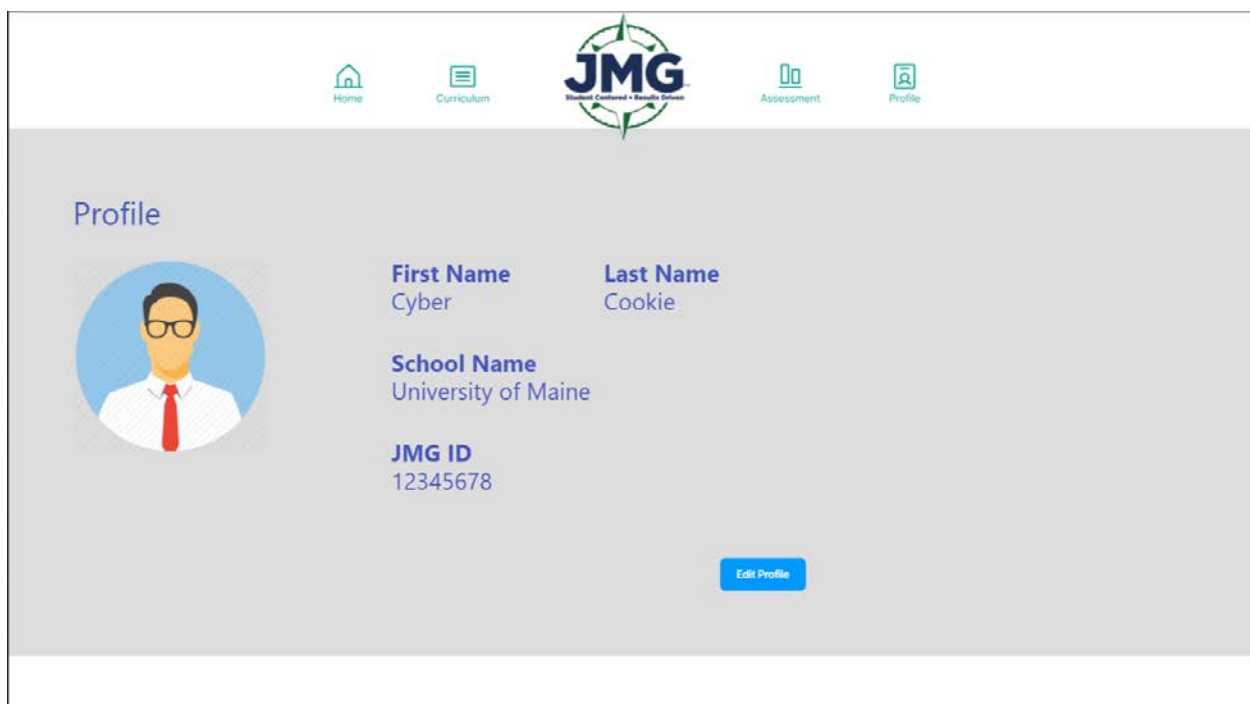


Figure II.4: The profile page. The user can view and edit its full name, school name, and ID here.



Figure II.5: The credential page view of the system. A user must login or signup before using other features on the website.

III. Persistent Data Design

Provide a diagram that illustrates how the user will navigate from one screen to another (I call this a “navigation diagram”). Label each symbol that represents a screen so that you can reference the screens, if necessary, later in the document. Give a brief description of what the diagram as a whole represents.

Next, guide the reader through a series of screenshots of all system screens. (You do not need to include error and confirmation messages/pop-ups.) Give the screen shots figure numbers and labels that match those in the navigation diagram. Refer to the figure numbers in the text of the walkthrough. Explain what the reader is seeing in each screen shot: the major screen areas, menus, what each button does, how to navigate to the next screen or return to the previous, etc. Note that if a feature has been standardized (*e.g.*, how to return to the previous screen) and explained in Section 2, you do not need to repeat it here.

Screen shots should not be handwritten but may be drawn using any tool you wish (*e.g.*, Visual Basic, PowerPoint, a drawing program, etc.). At this point in the process, they are a best approximation as to what the user interface will look like in both layout and annotation.

Navigation Diagram

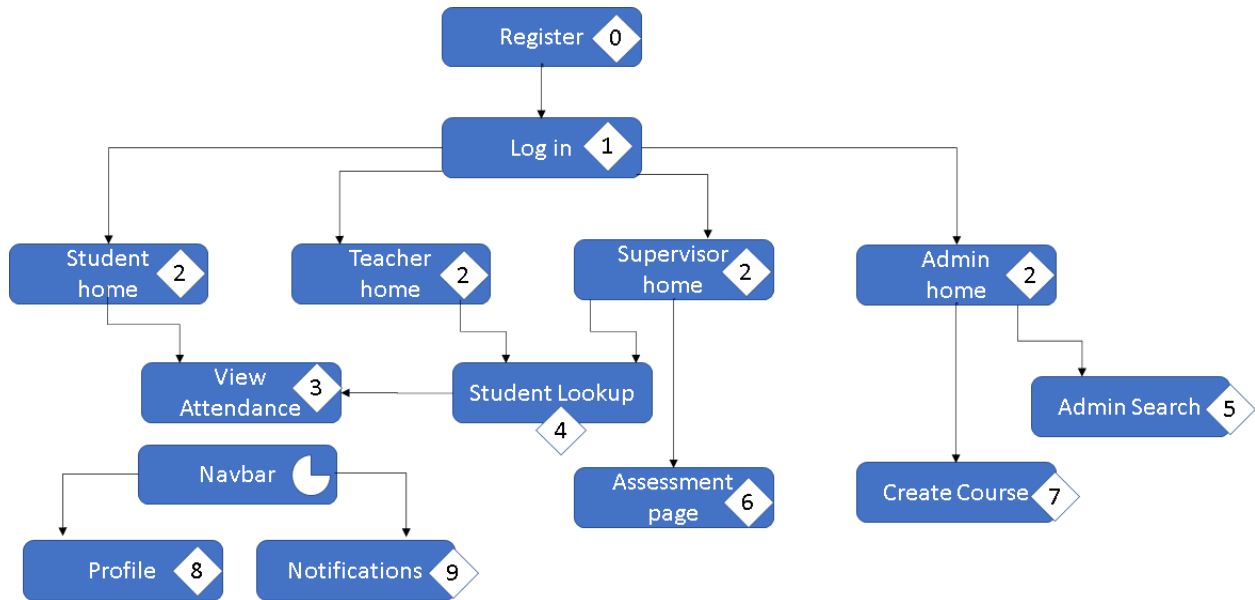
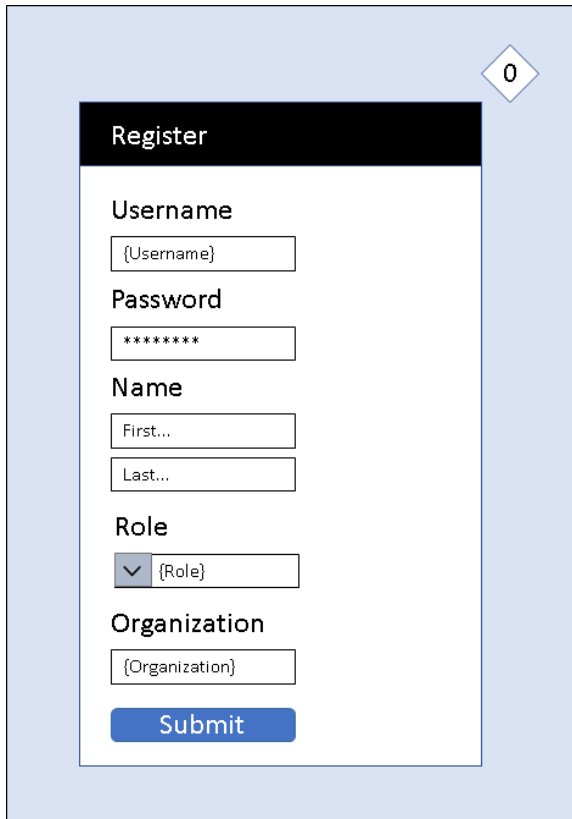


Figure III.1: Site Navigation Flow Chart

This diagram shows how the pages currently designed relate to one another and how to navigate to them. At this point in time almost all pages are directly accessible from the homepage, with the exception of “view attendance” which requires a student lookup for teachers and supervisors. Each homepage is relatively similar, with the exception of the buttons available to each user. In general, it should be assumed that the snapshots don’t represent small differences between user roles, but rather represent a structural form universal to each user.

Web Page Views



0

Register

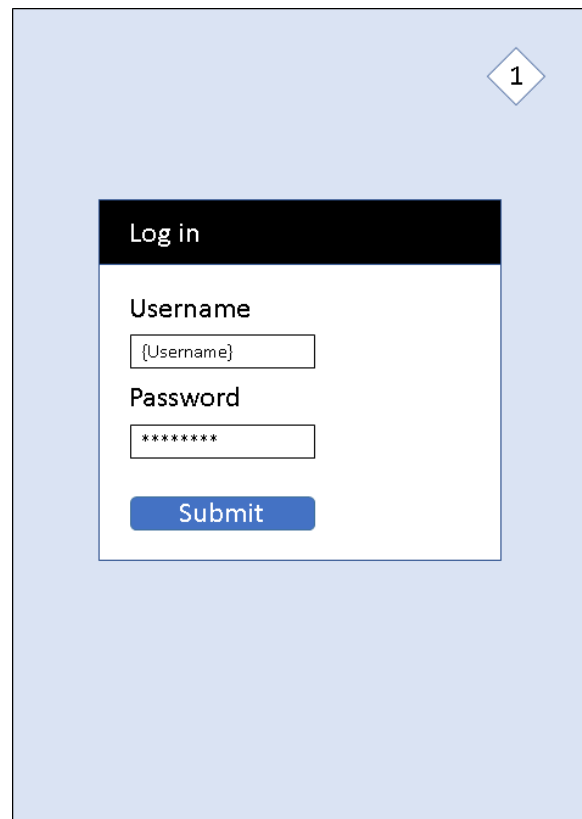
Username

Password

Name
First...
Last...

Role

Organization



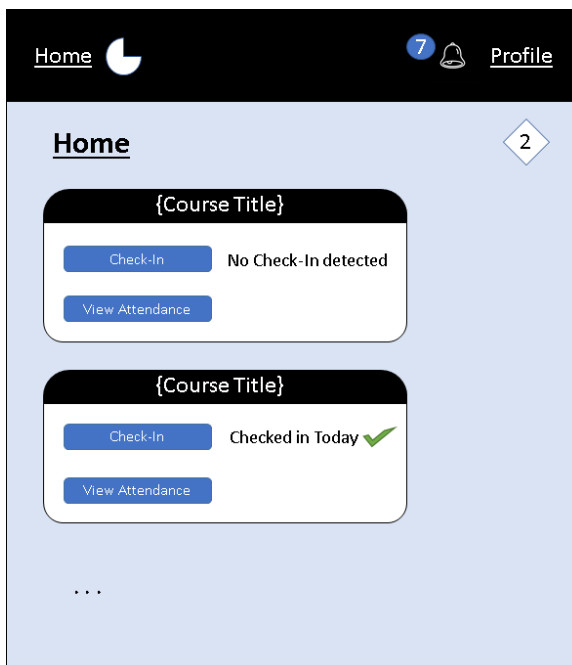
1



Log in

Username

Password

Figure III.2: Registration and Figure III.3: Login



Home  7  Profile

Home

2

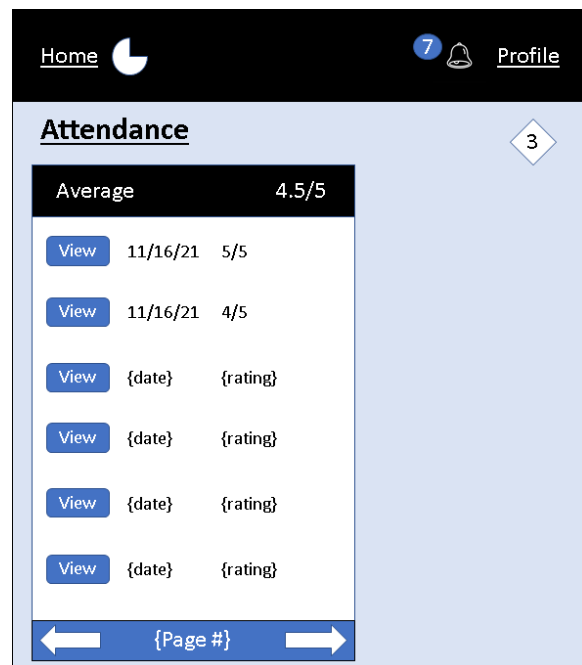
{Course Title}



No Check-In detected

{Course Title}

Checked in Today ✓

...



Home  7  Profile

Attendance

3

Average 4.5/5

<input data-bbox="862 1425 920 1463" type="button" value="View"/>	11/16/21	5/5
<input data-bbox="862 1478 920 1516" type="button" value="View"/>	11/16/21	4/5
<input data-bbox="862 1547 920 1585" type="button" value="View"/>	{date}	{rating}
<input data-bbox="862 1600 920 1638" type="button" value="View"/>	{date}	{rating}
<input data-bbox="862 1652 920 1690" type="button" value="View"/>	{date}	{rating}
<input data-bbox="862 1705 920 1743" type="button" value="View"/>	{date}	{rating}

{Page #}

Figure III.4: Home and Figure III.5: Attendance

Home 7 Profile

Student lookup 4

[Profile](#)

{Course}	{Name}
Lemon Co.	Cave Johnson
Assessment	Attendance
States Craft	Alexander Hamilton
Assessment	Attendance

← {Page #} →

Figure III.6: Student Lookup and Figure III.7: Admin Search

Home 7 Profile

Admin Search 5

[Profile](#) [Course](#)

{Course}	{Name}
Lemon Co.	Cave Johnson
Delete	Sign In
States Craft	Alexander Hamilton
Delete	Sign In

← {Page #} →

Home 7 Profile

Assessment 6

{Course Title}

{Student} reported:

Date

At

[Confirm](#) [Deny](#)

Review Criteria #1

☒ ☐ ☐ ☐ ☐

...

Free Write

Apprentice seemed a little tired.
Overall good job.
Keep up the good work.

Overall 4.2/5

[Submit](#)

Home 7 Profile

Course Creation 7

Name

Generated ID: J4K66OPX3S19

[Create Course](#)

Figure III.8: Assessment and Figure III.9: Course Creation

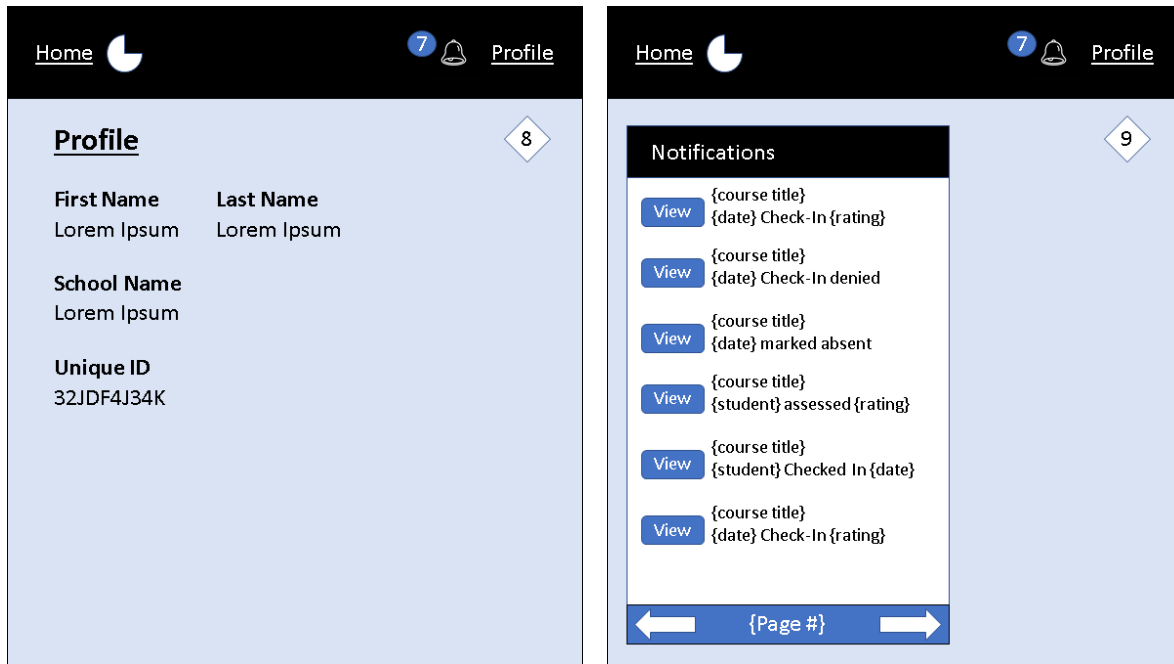


Figure III.10: Profile and Figure III.11: Notifications

Figure Overview

3.2. The registration page consists of a series of user input, including username, password, full name, role, and organization(s). Upon pressing submit this information is sent to our servers and a new profile is created.

3.3. The Login page takes a username and password and logs you into the associated account if a match is found in our database.

3.4. The homepage is the basis of our navigation tree and provides course specific subpages and buttons for teachers, supervisors, and admins to find other users (or courses). The check in button is student specific and allows a student to mark themselves as present, the current time will be automatically provided.

3.5. The attendance page is viewable by a student and any other role that is associated with that student and displays an average assessment score, as well as allowing for all individual assessments to be viewed.

3.6. The student lookup allows for supervisors and teachers to search through the students under them to find one individual. The buttons available to each role differ, but a supervisor can write an assessment, while both can view the students' attendance here.

3.7. The Admin search allows for toggling between courses and users. An admin can delete any user or course, while also wielding the power to log in as any individual to view their profile.

3.8. The Assessment page consists of an attendance submission which can be confirmed or denied (if none then a button will be available to mark absent), a set of rating criteria for the student, and a free write portion. The overall grade is (currently) calculated automatically.

3.9. Course creation is in the hands of an admin account, when a new course is created a random ID is generated.

3.10. The profile page contains basic information that our database has on a user, such as their name, organization, and ID.

3.11. The notifications page is the same for all roles, but the notifications that each role can receive are very different. In most cases the view button will take you to your (or a student's) assessment. Students and teachers are alerted of their rating, while supervisors are alerted of check-in submissions.

navbar (¾ circle): Appears on every page after log in, the navbar is treated differently and separated on the navigation diagram. It has a button to link back to the home page, the notifications page, and the user profile.

IV. Data Validation

Each user, depending on what type they are, will be able to enter in information that will be stored in the database. For example, when a user creates an account, they will enter their first and last name. Some of this data must be entered in a specific format as described by the table below.

Item	Data Type	Limits	Allowable Format
Login: Username	String	5 - 20 characters long	No specific format
Login: Password	String	No special characters other than '\$', '!', '#', '& 5 - 20 characters long	Contains at least one letter, number, and special character.

Create Account: First Name	String	1 - 30 characters	No specific format
Create Account: Last Name	String	1 - 30 characters	No specific format
Create Account: School	String	5 - 80 characters	Any format
Create Account: User Role	String	NA	“teacher”, “site supervisor” or “student” Selected from drop down
Create Account: Company Name	String	1 - 100 characters	No specific format
Check In: Date	String	Max Day: 31 Max Year: 9999 Max Month: 12	“DD/MM/YYYY”
Check In: Begin Time	String	Max Hour: 12 Max Minute: 59	“HH:MM (meridian)” or “HH:MM(meridian)”
Check In: End Time	String	Max Hour: 12 Max Minute: 59	“HH:MM (meridian)” or “HH:MM(meridian)”
Assessment: Effort	Integer	1 - 5	User clicks on correct checkbox
Assessment: Professionalism	Integer	1 - 5	User clicks on correct checkbox
Assessment: Attentiveness	Integer	1 - 5	User clicks on correct checkbox
Assessment: Overall Performance	Integer	1 - 5	User clicks on correct checkbox

Assessment: Additional Comments	String	400 characters	No specific format
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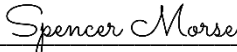
Table IIV.1 - Data Validation - These are all of the different kinds of data that can be entered by a user of the application. Each has a data type, and some have specific limits and formats.

Appendix A: Agreement between Customer and Contractor

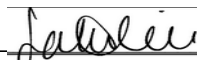

By signing this document, all parties agree that this is a complete list of user interface features for the JMG Student Check-in Site application.

In the case that user interface features or any other information in this document need to change for the contract to be fulfilled, the following procedure will be followed: The party that believes a change is necessary shall contact the other party, explaining the situation. A meeting between the two parties will be held to discuss the problem and possible solutions. Once an agreement has been reached, modifications to this document will be made to reflect it, and all members of each party will sign the new document, which will then replace this one.

Team Members:

Name: <u>Elijah Caret</u>	Signature: <u></u>
Name: <u>Michael Ferris</u>	Signature: <u></u>
Name: <u>Xingzhou Luo</u>	Signature: <u>Xingzhou Luo</u>
Name: <u>Spencer Morse</u>	Signature: <u></u>

Customers:

Name: <u>Samantha Brink</u>	Signature: <u></u>
Name: <u>Samantha Brink</u>	Signature: <u></u>

Appendix B: Team Review Sign-off

By signing below, all members agree that they have reviewed this document and agree on its content and format.

Team Members:

Name: Elijah Caret Signature: *Elijah Caret* Date: Nov. 29, 2021

Name: Michael Ferris Signature: *Michael Ferris* Date: Nov. 29, 2021

Name: Xingzhou Luo Signature: *Xingzhou Luo* Date: Nov. 29, 2021

Name: Spencer Morse Signature: *Spencer Morse* Date: Nov. 29, 2021

Appendix C: Document Contributions

- Elijah Caret:
Section IV, Appendix A, Appendix B, Appendix C
- Michael Ferris:
Section III, Appendix A, Appendix B, Appendix C
- Xingzhou Luo:
Section II, Appendix A, Appendix B, Appendix C
- Spencer Morse:
Section I, Appendix A, Appendix B, Appendix C