Design Journey Part 1

Group name: Blue Sloths

Members' names: Mauricio Moreyra, Hanna Ramsden, Chenxi Su

Members' NetIDs: mrm343, hnr6, cs2238

Section: 201

Part 1: Client Selection

Client Description

Malte Jung is an assistant professor at Cornell University. He is the head researcher for his lab, the Cornell Organizational Robotics lab. He wants his current studies to have more publicity and would like a website to present his lab in a clear and efficient way. He is hoping that students who are interested in the lab will be able to contact him through the website and see his past publications.

Target Audience

The potential consumers of this website are primarily undergraduate students at Cornell interested in working at the lab. They would interact with the website when exploring potential research opportunities and when looking to learn more about the lab itself, including how to contact the researchers and which other undergraduates currently work there.

Purpose & Content

The purpose of the website is to provide a clear and well-designed way for students to learn more about the Organizational Robotics Lab. Content will include an overview of what the lab focuses on, brief biographies of Professor Jung and his undergraduate research team, current news from the lab (accessible to lab members via login), and a contact form to contact the lab directly.

Hosting Plan

Professor Jung expressed that he would like the website to be hosted via Cornell Academic Technologies. This is a service available to all IS and CS faculty to host their personal website on their server.

Needs and Wants

Needs and wants	Design ideas and choices	Memo
Easy to navigate and understand site with a clean design	Implement a single-page design (e.g., links on navigation bar	Professor Jung requested that we use the single-page design. We plan to use the

	automatically scroll down); keep color and font choice consistent and sharp	colors of the lab's current logo as a starting point for our design.
Biographies of each team member	We will include a section with brief biographies of each team member with a longer description for Professor Jung himself.	We will use thumbnails to show the whole team. Clicking on each thumbnail will display that person's biography.
Lab updates and news	We will include a section designed similar to a blog with the latest updates and news from the lab.	Login will be required to make these posts as an admin.
Contact form	We will include a form to contact the lab. We will make sure the user specifies the purpose of contacting the lab (e.g., interested in joining, business inquiries, press inquiries, etc.).	We plan to connect the form inputs to an outgoing email or database so the team can easily be contacted and see these requests.

Part 2: Project requirements

Design

We will be using an extensive amount of CSS to design our website, including small animations for the title page. Our client requested that he wanted a minimalist design, so we hope the layout of our website is neat and easily read. As we mentioned earlier, we plan to keep our colors and overall design consistent throughout the whole website. The main design feature of our site, however, will come with our one-page design (that is, the navigation bar scrolling to each page).

Client's Edits

Yes – the client will have the ability to update the news/current events section of the website with his admin login.

Information Architecture, Content, and Navigation

Main navigation	Sub category	Content
Home Page	About Current Studies Past Studies	**Home Page:** Give a brief introduction to the lab and the current/past studies the lab has worked on. **About:** A two paragraph summary of the Organizational Robotics lab provided by our client. **Current Studies:** A summary for each of the current studies in the lab, accompanied with a picture and the names of each researcher working on the study. Our client will provide us with the summaries, and we will have to take pictures of each study. **Past Studies:** A collapsible section will show all of the past studies of the lab, in the same format as Current Studies.
Team	Profile Pictures Contact Info	**Team:** Will show all current graduate and undergraduate researchers involved with the lab, the studies they're working in, a profile picture, and their contact information. The client will provide this information. **Profile Pictures:** Each researcher will have a CSS-styled profile picture. **Contact Info:** Each researcher will have their email listed so that visitors to the site will be able to contact them through an outgoing form.
News	Current Update Past Updates	**News:** The client can access this feature to writes updates about the lab or current studies. **Current Update:** The latest news update from an admin. **Past Updates:** A collapsible form that allows

		users to see past news updates from admins.
Contact Form	Contact Form	**Contact Form:** A section detailing the main email, number, and address of the lab. This information will be provided by the client.

Interactivity

Our client requested the ability to make news updates, so we are hoping to include a PHP form so that he can publish an update if he logs in as an admin. He may also delete these news updates. Logging in as an admin will also allow the client to upload new studies summaries under the Home Page. Whenever a visitor to the site clicks on an email listed under one of the researchers, we would like to implement a pop-up form which sends out an outgoing email to that researcher.

Use of Existing Libraries

jQuery will be used to build interaction for the website. It will be incorporated into the project by including it in the PHP file. The Bootstrap grid system, which is provided on Piazza, will also be utilized in our website for layout.

Database

We plan to use a database to make sure that we can update the site as efficiently and quickly as possible. We describe below what our preliminary schema will be.

A user table. A user table will be implemented for the user so that administrators can login into the website and update the contents they want to display. The table will include user_ID(int), user_name(varchar), password(varchar).
An article table. The client's core requirement is to publish news and information about the lab on the website. So a rich text editor will be provided for them to do so. In this situation, a record will be generated recording the creation and update of the content. The table will include article_id(int), article_title(varchar), directory_of_source_file(varchar), created_time(date) and updated_time(date).

A photo table. The photos uploaded by user along with their news will be stored into this table, including photo_ID(int), photo_directory(varchar), photo_type(varchar) and uploaded_time(date).

Scale

As we have been describing in previous sections, we hope to create a single-page design, with each page on the navigation bar automatically scrolling to the appropriate section. We anticipate having a homepage, a team page, a news page, and a contact page - at this point, we plan on having these four pages. We anticipate that some pages will take longer than others but hope to work on the site in small sections incrementally. We plan to spend 40-50 hours on the site.

Part 3: Work Distribution

We describe in the table below how we plan to divide up the work evenly while also playing to each group member's strengths. We also assign backup roles for each member in case the primary member for a certain task is for some reason unable to complete that task within a given deadline.

We have a GroupMe message that we use to communicate. We also have set up a GitHub repository so we can easily share our work even if we cannot me in person at a given time. We will manage deadlines and ensure task completion by discussing tasks and goals each Monday and reconnecting with these that following Friday. At these task assignment meetings, we will also ensure that we assign deadlines so that if someone's work depends on someone else's, this is taken into account and planned accordingly.

Please note that the table below details our work distribution at a high level. Once we begin to code the website and build it up more in-depth, the tasks will become more specific. However, for now, we have established each group member's general role so that everyone understands what he or she needs to do when the project begins to pick up.

Task	Team Member Names and roles	Due Date	Status
Design	Mauricio: main designer, Hanna: backup, debugging. In charge of design plan (phase 2)	4/26	In progress
Database maintenance/SQL	Chenxi: main SQL expert, Hanna & Mauricio: backup, debugging. In charge of design plan for DB (phase 2)	4/26	In progress

HTML/PHP, overall site structure	Hanna: PHP/HTML, Chenxi & Mauricio: backup, debugging. In charge of structure of overall site (page organization, transferring needed files to server -- phase 3)	5/3	In progress

Design Journey Part 2

Group name: Blue Sloths

Members' names: Mauricio Moreyra, Hanna Ramsden, Chenxi Su

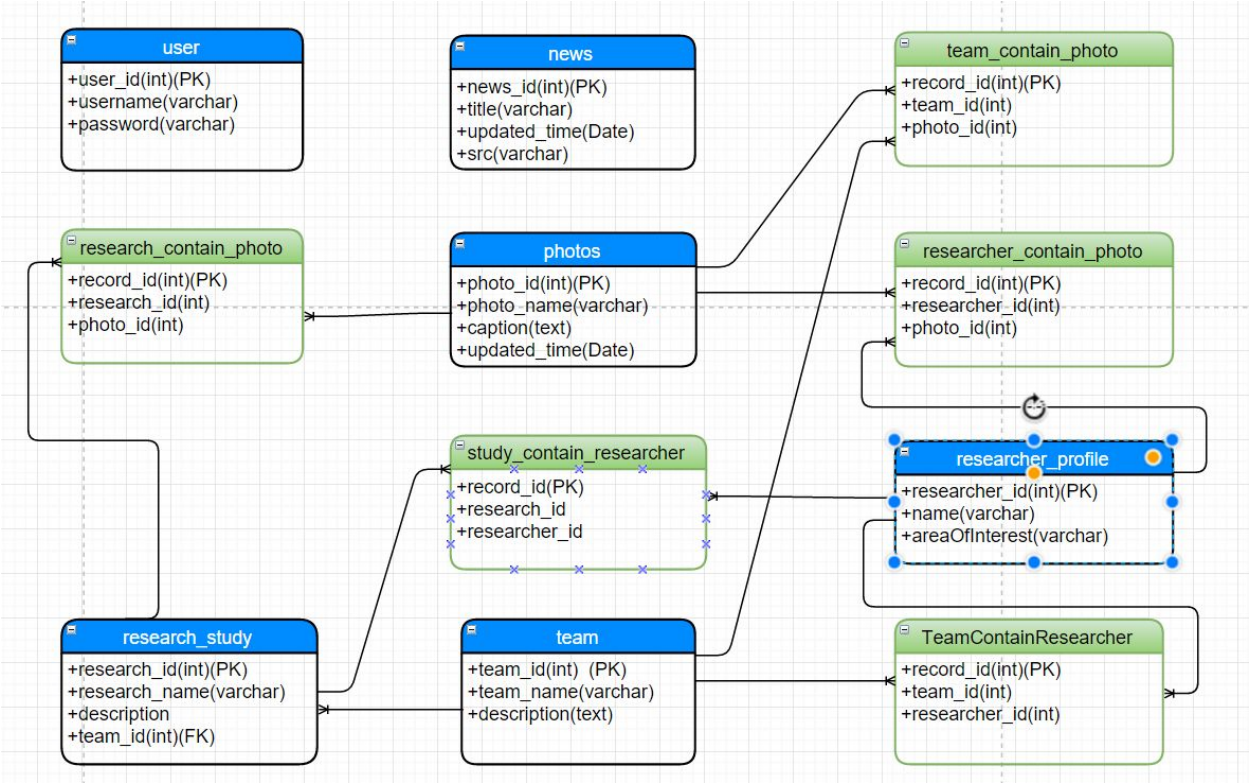
Members' NetIDs: mrm343, hnr6, cs2238

Section: 201

Part 1: Database Design

Conceptual ER Diagram

The following Diagram is the entity relationship for our database. As you can see, all the relationship implemented in the diagram are one-to-many relationship.



Database Description

The relationship above are implemented based on the following rules.

1. **Store user information.** A user table has been maintained in the database to store information of administrators so that they can login and update the contents of the lab website.
2. **Store news information.** We are providing an API to users so that they can edit news or events and then publish them. In this case, all user edited contents has been saved into a .txt file, together with HTML and CSS. For this reason, this table has no relation with others.

3. **Team, research_study and researcher_profile.** These three entities are closely related to each other. A record will be created in team table for every team in the lab. Each researcher in the lab will have his own record in researcher_profile table. The same happens to every study that the lab used to work on or has been working on. Currently we assume that each study can only be done by one team and a team can have many studies. In addition, a team have many researchers, a researcher can involve in many teams. A researcher may participate in more than one study, and a study definitely requires more than one researcher.
4. Team, research_study and researcher_profile all maintain a many to many relationship with photos, since we will allow user to upload more than one profile photos while they create a new team, study, or researcher profiles for the lab, and a photo may be used by different entities.

Part 2: Website Layout

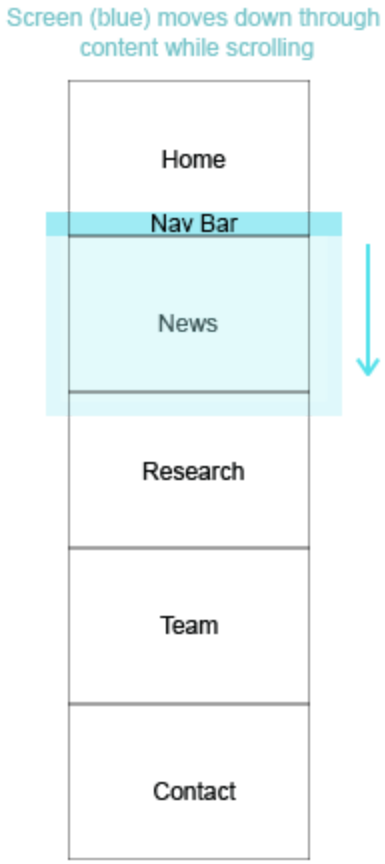
Main navigation	**Sub category**	**Content**
Home	About	**Home Page:** Give a brief introduction to the lab, animated logo at the top **About:** A two paragraph summary of the Organizational Robotics lab provided by our client.
News	Current Update Past Updates	**News:** The client can access this feature to writes updates about the lab or current studies. **Current Update:** The two latest news update from, submitted by an admin. **Past Updates:** A collapsible form that allows users to see past news updates from admins. As an admin, the client will be able to add new updates or delete old ones.
Research	Current Studies Past Studies	**Research:** Lists all the present and past research opportunities from the Organizational Robotics Lab. **Current Studies:** A paragraph summary for each of the current studies in the lab and their researchers. Our client will provide us with

		the summaries and designated researchers. **Past Studies:** A collapsible section will show all of the past studies of the lab, in the same format as Current Studies. As an admin, the client will be able to add new studies or delete old ones.
Team	Profile Pictures About Personal Info Contact Info	**Team:** Shows all current graduate and undergraduate researchers involved with the lab (14 total). The client will provide this information. **Profile Pictures:** Each researcher will have a CSS-styled profile picture, to the right of their info. **Personal Info:** Each researcher will have a small introduction and list the studies they are working on. **Contact Info:** Each researcher will have their email listed so that visitors to the site will be able to contact them through an outgoing PHP form. As an admin, the client will be able to add new researchers or delete old ones.
Contact	Contact Form	**Contact Form:** A section detailing the main email, number, and address of the lab. This information will be provided by the client.

Navigational Structure

Our client specifically requested that the entire website be located on one page. To accomplish this, we are considering a navigational bar that is fixed at the top of the screen. However, each section of the website (About, Team, Research, etc.) is located one right below the other. The sections will be separated by color and title. If a user would like to jump to any section without wanting to scroll to it, the navigational bar can easily take them there. We designed our navigation categories to fit our client's modern and simple design request. Our "About" is located at the top to get visitors to the site a small introduction to the lab. "News" and "Research" are featured directly after to show the principal information about the lab, as

requested by our client. Meanwhile, "Team" and "Contact" are located at the bottom in case any user is interested in contacting researchers after having read through the lab's studies. A simple diagram is located below.



Part 3: Interactive Functionality

The main interaction of our site will come with the login feature and in the contact section. In these, we will need to include utilizing PHP session variables so that an admin is able to add updates to the News section of the site and PHP form validation for our contact form. These interactive features are needed because our client requested a page of the site dedicated to current lab updates and other news and the ability to add these posts himself. For this reason, we decided it would be best to implement a login system. Our client also expressed that he would like the website visitors to be able to reach him directly via email through the site, and we plan to accomplish this with a PHP-validated form.

PHP Interactivity

Login functionality. This is where the bulk of our PHP interactivity comes from. We will use session variables and functions to allow an admin (our client or members of his team) to login and add posts to the News section of the site. We will use mySQL to ensure that the login information is correct and password_hash to make sure that the passwords themselves are not present anywhere in the code. We will also include a log out option once the logged-in user has made all changes he or she wishes to make.

Contact form. We plan to include a contact form and to validate each inputted field with PHP. The form itself will be HTML, but we will use PHP to access the input for each field and make sure that each input is acceptable (e.g., that names are only characters, that emails are actually emails). We will also use PHP to place a character limit of 500 for each message sent to the lab. If each field is properly entered, this will be sent to the lab. We will use functions such as $_POST, isset, and preg_match with regular expressions to perform these checks.

Updating the database. We will use PHP and mySQL elements to update the database as new information is added to the site by logged-in users. This includes utilizing mysqli() functions and PHP validation (as described above). We will include these when an admin adds updates to the news section or wishes to add a new research team member profile to the team section. We will use PHP forms so the user can add this information into the database seamlessly and use mySQL to actually enter this into our database. The user will also have the option to remove team members or updates.

JavaScript Interactivity

The majority of our interactive functionality will come from PHP, as described above. However, there will be some elements of JavaScript used. For example, we plan to include a function that will ask the user to confirm submission before contacting the lab or researchers directly. We will do this by using JavaScript onClick functionality. We are also currently working on having our website scroll smoothly from section to section, which will involve using jQuery. This is still currently a work in progress.

Compared to the first milestone, did you make any changes to your plan to use the existing libraries (e.g. editor.js, jQuery Cookie, Image Sliders, jQuery) for the site?

As mentioned above, we might be using jQuery to implement a smooth scrolling effect for our one-page designed site.

Design Journey Part 3

Group name: Blue Sloths

Members' names: Mauricio Moreyra, Hanna Ramsden, Chenxi Su

Members' NetIDs: mrm343, hnr6, cs2238

Section: 201

Part 1: Necessary Information

1. Please provide us your login username and password

Username: admin

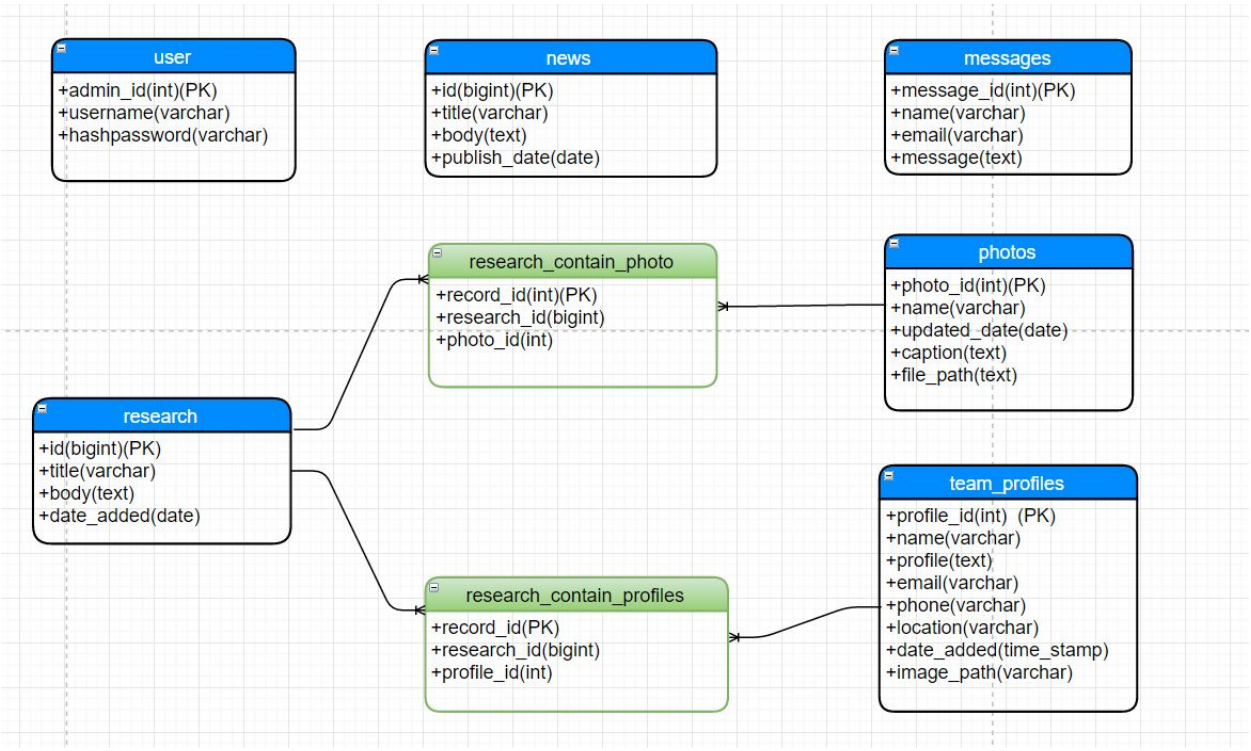
Password: Jung

2. Please provide us your DB login username and password

Username: bslothssp16

Password: bluesloth123

Part 2: Database Revision and Implementation



Changes made from last milestone:
As we achieve a better understanding of the needs of our client, we made some changes to the ER diagram. It is simplified to some extent than the previous one, but we also keep the many-to-many relationship in order to make our project appropriately complicated. Now the

many-to-many relationship is between research and photos in addition to research and team profiles. These tables are currently left empty and will be implemented as the site is further developed.

Part 3: Testing Protocol

We are going to primarily choose students as our testers. We decided this because the target audience for the site will be students interested in working at the lab or in learning more about the lab itself. However, we also think that other faculty members and members of the general Cornell community will be interested in learning more about the lab. For the sake of this milestone, we selected two undergraduate students, one in the Cornell CIS community and one not. We chose these students because we believe they represent both ends of our target audience spectrum and wanted to make sure that the site is usable and understandable for everyone. We found these students through personal connections, and we met them in Gates Hall. Since they are people we know personally, we will not compensate them.

Task name	**Task description**	**Task goal/what's being tested/expected outcomes**
First impression	Ask the user to look at the site for 5 seconds and describe their emotional and intellectual reactions	Want to see whether the design communicates client's key site goals to the target audience; want to see if people get the metaphor right away.
Researcher info	Ask the user to find where they can learn about the research team members	Want to test that navigation is clear and that users use the nav bar versus scrolling to the "Team" section.
Contact lab	Navigate the site effectively enough to find where to contact the lab directly.	Use navigation bar to find the contact form at the bottom of the page.
Proper navigation	Ask the user to show the best way to navigate among the pages of the site.	Want to ensure that people understand the single-page design and either scroll from section to section or use the navigation.
Find all news	Ask the user to find all posts under the News section of the site.	Since this section will have a collapsible section, we want to ensure that the user is able to collapse and hide the section easily and understand that this is an option.

Find all research projects	Same as above, but with the Research section.	See above.
Admin login	Ask the user where they would login if they were an administrator.	Click “Administrator Login” link in navigation bar.

In order to receive the most useful possible feedback from our testers, we will make sure that the experience is kept very casual and stress-free. We will encourage them to say everything they notice, even if it is not necessarily relevant to the current task and tell them right at the beginning that they are encouraged to be completely open and understand that if they use something on the website in a way we did not intend, it is a fault on our end and not theirs.

We will introduce each task with easy to understand and conversational wording so that the user is comfortable enough to be honest with their observations. If, at the point when we test our site, certain functionalities are not yet fully implemented, we will be honest with the user and alert them of this before. If the user stops talking through each task, we will encourage them to keep talking by asking simple questions such as, “how’s it going?” or “do you need more clarification?” if they appear to be struggling. If they are unable to complete a task after five minutes, we will move on.

After each task is completed, we will ask for overall impressions or if there are any particular observations that they would like to share. We will thank them with a follow-up email the same day they complete the test and a second email with the working link for the site once it is live.

Part 4: Testing Notes

User 1

Our User 1 is an undergraduate student studying Information Science at Cornell. This user is generally technologically adept and keeps up-to-date with current technology. In addition, as an Information Science student, this user would be a primary target user for the lab’s website. The site is meant to be targeted mostly to students in the CIS community who might be interested in working at the lab or who might be simply curious about the lab’s work. As such, User 1 represents the site’s target customer.

Tasks for user 1	User's reaction/feedback/problems?	Re-design ideas and other notes - what are the different solutions you can think of to address the feedback/problem?
First impression	The user thought that the site was well-designed and easy to follow. He really liked the banner at the top.	None
Researcher info	The user clicked the "Team" link on the navigation bar.	None
Contact lab	The user scrolled to the "Contact" section - did not click the link via the navigation bar.	The user said that because he was already scrolled down towards the bottom of the page and understood that the design was one-page, he did not feel the need to go to the section via the navigation bar.
Proper navigation	The user used the navigation bar to jump around from page to page.	The user recommended implemented some kind of JavaScript so that there is the effect of "smooth scrolling." (Note: we are in the process of trying to implement this without using jQuery plugins).
Find all news	The user clicked on "News" from the navigation bar.	None
Find all research projects	The user scrolled to "Research" from the News section they were previously on.	None
Admin login	The user clicked on "Administrator Login" from the navigation bar.	None - user did not login because not administrator

Overall, the user was able to understand the site quickly and correctly. The single-page design did not confuse him, and he was able to effectively use both the navigation bar and scrolling design.

User 2

User 2 is another undergraduate student at Cornell, but not in the CIS community. She studies Communication and is an avid user of technology and a quick learner. This user represents our

target audience/client's needs because she is not necessarily a target demographic, but does represent someone who is interested in learning more about the site or might have merely stumbled upon it.

Tasks for user 2	**User's reaction/feedback/problems?**	**Re-design ideas and other notes - what are the different solutions you can think of to address the feedback/problem?**
First impression	The user responded immediately and positively to the banner and said that it really grabbed her attention.	None
Researcher info	User read the navigation bar links and very briefly hesitated between "Research" and "Team," but chose the Team link.	We decided that this was more of an error with how we worded the task than the site itself, so we left it as is.
Contact lab	The user scrolled to this section.	Similarly to user 1, user 2 very quickly understood the design of the site, and this is shown in how automatically she scrolled to the Contact section instead of using the navigation bar.
Proper navigation	Same as user 1 - The user used the navigation bar to jump around from page to page.	This user did not mention anything about smooth scrolling and did not make any further suggestions about the navigation bar.
Find all news	The user scrolled to the News section.	None
Find all research projects	The user scrolled down to the Research section.	The user commented that the collapsible content was a very useful feature and kept the site clean.
Admin login	*Note: for this user, we provided a dummy login that has since been deleted from our database.* The user clicked "Administrator Login" at the top and entered the given username and password.	The user said that it would be helpful to know what an administrator can do once logged in more immediately and suggested to include this in the first section of the site.

The user was quick to understand the structure of the site, which was reassuring to us, since it is not traditionally designed. She also provided useful feedback about how to make certain affordances of the site, especially if logged in as an administrator, clearer to the user.

Testing Summary and Iteration

We learned that the single-page design is fairly intuitive to use, but that it could be aided by making our transitions smoother and more animated (if possible within the constraints of the project requirements). We also learned that our users were able to quickly adapt to the design and understand the most efficient ways to navigate. Lastly, we learned that as Information Students and the designers of the site itself, things that seem obvious to us on the site may not be obvious to others and that this is very important to keep in mind when developing websites.

Three key changes we made based on testing include the following:

1. Making it clearer that administrator login allows new posts to be added. We did this since for a user that is not an administrator, the login seems unimportant. We fixed this by including an explanation about our login system in our home section.
2. Make it clearer that each section can be reached by scrolling. Again, we add in a brief sentence to our home section explaining how to best use the site.
3. *Not yet implemented* - smooth scrolling. We hope to implement this for general ease of use and enhanced user experience.

Design Journey Part 4

Group name: Blue Sloths

Members' names: Mauricio Moreyra, Hanna Ramsden, Chenxi Su

Members' NetIDs: mrm343, hnr6, cs2238

Section: 201

Part 1: Necessary Information

1. Please provide us your login username and password

Username: admin

Password: Jung

2. Please provide us your DB login username and password

Username: bslothssp16

Password: bluesloth123

Use of Existing Libraries

jQuery
We used jQuery and Ajax in our code. We did this at first to deal with having a login system on a single-page designed site. We use jQuery to get the name and password and use Ajax to send requests to the server to validate the input of user. When the username and password provided by the user are incorrect, we can provide the “Retry” response without refreshing the page.

Quill: A open source rich text editor provided by http://quilljs.com/
Since the administrator will frequently publish lab news and events, add new researcher information into the team page, and publish new research or project information on the lab website, we thought it necessary to provide them with a rich text editor that can help edit posts conveniently and format them in a more customized way. We chose to use Quill, a open source rich text editor with APIs to access and save the contents in their formatted style. We replaced every text area with the editor with the exception of our contact page, since the results of this are sent directly into the database and not displayed on the site itself. The rich text editor and the editing feature can be seen once logged in under admin tools in our add and edit functionalities for our News, Research, and Team pages. We appropriately cite our usage of the API in our code.

Part 2: Testing Protocol

We are going to primarily choose students as our testers. We decided this because the target audience for the site will be students interested in working at the lab or in learning more about

the lab itself. However, we also think that other faculty members and members of the general Cornell community will be interested in learning more about the lab. For the sake of this milestone, we selected three undergraduate students, one in the Cornell CIS community, one who is interested in the lab's studies, and one who is not affiliated with engineering. We chose these students because we believe they represent every end of our target audience spectrum and wanted to make sure that the site is usable and understandable for everyone. We found these students through personal connections, and we met them in Gates Hall. Since they are people we know personally, we will not compensate them.

Task name	**Task description**	**Task goal/what's being tested/expected outcomes**
First impression	Ask the user to look at the site for 5 seconds and describe their emotional and intellectual reactions	Want to see whether the design communicates client's key site goals to the target audience
Proper navigation	Ask the user to show the best way to navigate among the pages of the site.	Want to ensure that people understand the single-page design and either scroll from section to section or use the navigation.
Researcher info	Ask the user to find where they can learn about the research team members	Want to test that navigation is clear and that users use the nav bar versus scrolling to the "Team" section.
Contact lab	Navigate the site effectively enough to find where to contact the lab directly.	Use navigation bar to find the contact form at the bottom of the page.
Admin login	Ask the user where they would login if they were an administrator.	Click "Administrator Login" link in navigation bar.
Delete news post	Ask the user, once logged in, to delete a news post	Want to ensure that the user understands how to navigate administrator tools.
Edit researcher profile	Ask the user, once logged in, to edit a profile	Want to ensure that the user understands how to edit posts and can navigate to this feature effectively.

Add new research post	Ask the user, once logged in, to add a new post on the Research page	Again, to make sure all functionalities are understood and used in their intended ways.

In order to receive the most useful possible feedback from our testers, we will make sure that the experience is kept very casual and stress-free. We will encourage them to say everything they notice, even if it is not necessarily relevant to the current task and tell them right at the beginning that they are encouraged to be completely open and understand that if they use something on the website in a way we did not intend, it is a fault on our end and not theirs.

We will introduce each task with easy to understand and conversational wording so that the user is comfortable enough to be honest with their observations. If, at the point when we test our site, certain functionalities are not yet fully implemented, we will be honest with the user and alert them of this before. If the user stops talking through each task, we will encourage them to keep talking by asking simple questions such as, “how’s it going?” or “do you need more clarification?”. If they are unable to complete a task after five minutes, we will move on.

After each task is completed, we will ask for overall impressions or if there are any particular observations that they would like to share. We will thank them with a follow-up email the same day they complete the test and a second email with the working link for the site once it is live.

Part 3: Testing Notes

User 1

Our User 1 is an undergraduate student studying Information Science at Cornell, which is one of our client’s key users (those who might be interested in joining the research staff). The user keeps up with technology and is generally adept at using whatever the latest technologies might be.

Tasks for user 1	**User’s reaction/feedback/problems?**	**Re-design ideas and other notes - what are the different solutions you can think of to address the feedback/problem?**
First impression	The user really liked the color scheme of the site and thought that it was easy to navigate. Added that the text could be bigger and to add more	We thought here that it would be a good idea to increase our text size and to add such padding.

	padding around sections to make a stronger indication for separate posts.	
Proper navigation	The user used the navigation bar to jump around from page to page.	None
Researcher info	The user clicked the “Team” link on the navigation bar.	None
Contact lab	The user clicked on “Contact” from the navigation bar.	None
Admin login	*Note: we provided a test login for the user.* The user clicked on “Administrator Login” from the navigation bar to login and successfully logged in.	The user liked the drop-down feature to show and hide the login.
Delete news post	The user clicked “Show Admin Tools” and then “Delete Post” once in the News page. The user selected to delete the one of the test posts provided.	The user said that it was very clear to him how to delete a post and liked the uniformity among all the admin tools, but the tools themselves were designed in a somewhat cluttered way.
Edit researcher profile	The user clicked “Show Admin Tools” and then “Edit Profile” once in the Team page. The user selected to edit the one of the test posts provided.	The user said that he liked that he did not have to edit every field to edit a post.
Add new research post	The user clicked “Show Admin Tools” and then “Add New Post” once in the Research page. The user added a test post.	None

Overall, the user was able to understand the site quickly and correctly. The single-page design did not confuse him. In addition, the user was able to effectively utilize administrator tools to alter the site’s content. The user’s suggestions were very valuable and eventually implemented into the site.

User 2

Our User 2 is an undergraduate student studying Computer Science at Cornell. The user is interested in pursuing research at a lab similar to our client's. The user was interested in learning about the experiments and research that he might be able to pursue working with our client.

Tasks for user 2	**User's reaction/feedback/problems?**	**Re-design ideas and other notes - what are the different solutions you can think of to address the feedback/problem?**
First impression	The user enjoyed the website, and found the one-page design easy to navigate.	None
Proper navigation	The user scrolled up and down through the website.	None
Researcher info	The user clicked the "Team" link on the navigation bar.	The user noted that extra information (such as the studies that the Researcher participated in) could be in a different color to signify a difference in content.
Contact lab	The user clicked on "Contact" from the navigation bar.	None
Admin login	*Note: we provided a test login for the user.* The user clicked on "Administrator Login" from the navigation bar to login and successfully logged in.	None
Delete news post	The user clicked "Show Admin Tools" and then "Delete Post" once in the News page. The user selected to delete the one of the test posts provided.	None
Edit researcher profile	The user clicked "Show Admin Tools" and then "Edit Profile"	The user noted that not every profile picture was centered, and suggested that uploaded

	once in the Team page. The user selected to edit the name field of one of the test posts provided.	pictures be accounted for this.
Add new research post	The user clicked “Show Admin Tools” and then “Add New Post” once in the Research page. The user added a test post.	None

The user enjoyed the site and found it easy to use. The user was able to complete all the functions and give appropriate feedback. The suggestions made by the user were implemented into the site.

User 3

Our User 3 is an undergraduate student who is an editor at the Cornell Daily Sun. The user was interested in being able to learn and write about the lab by visiting our site. They were focused on a clear display of content and readability.

Tasks for user 3	**User’s reaction/feedback/problems?**	**Re-design ideas and other notes - what are the different solutions you can think of to address the feedback/problem?**
First impression	The user liked the one-page design, and said it was easy to navigate.	None
Proper navigation	The user used the navigation bar to navigate the website.	None
Researcher info	The user clicked the “Team” link on the navigation bar.	None
Contact lab	The user clicked on “Contact” from the navigation bar.	The user liked how the contact form could tell if an appropriate email was written.
Admin login	*Note: we provided a test login for the user.* The user clicked on	None

	"Administrator Login" from the navigation bar to login and successfully logged in.	
Delete news post	The user clicked "Show Admin Tools" and then "Delete Post" once in the News page. The user selected to delete the one of the test posts provided.	None
Edit researcher profile	The user clicked "Show Admin Tools" and then "Edit Profile" once in the Team page. The user selected to edit the name field of one of the test posts provided.	None
Add new research post	The user clicked "Show Admin Tools" and then "Add New Post" once in the Research page. The user added a test post.	The user thought the date of the news post would be highly valuable information and suggested we include it automatically.

The user found the site very easy to read and was content with the navigation. The suggestions made by the user, especially including the date of the news post, were implemented into our site.

Part 4: Testing Summary and Iteration

We learned that the single-page design is fairly intuitive to use and that our users were able to quickly adapt to the design and understand the most efficient ways to navigate. As we said in our previous milestone, as Information Students and the designers of the site itself, things that seem obvious to us on the site may not be obvious to others and that this is very important to keep in mind when developing websites. Lastly, we learned that there is ease in simplicity and that it serves us well to not over-clutter the site.

Three key changes we made based on testing include the following:

1. Create a collapsible div for Admin Tools - we did this to make our site's design cleaner. Now, instead of seeing options for add, edit, and delete all at once, the logged-in user sees "Show Admin Tools" instead.

2. Add in date to News posts.
3. Add in more padding between separate sections and add in slight color differentiations in text - again, this is another addition to our site to make it cleaner and more intuitive.

Part 5: Final Notes to the Clients

Deployment Plan

We will be using Cornell's course web server to host our website. To upload to the server, we will be using Fetch, a Mac OSX application for transferring files with FTP and SFTP. We will make the website live ourselves. For future repair, we will be giving our client the necessary information to access the files and make any necessary changes.

Features not implemented

We were unable to implement smooth scrolling like our client requested. We could not implement this feature because in order to be done well, it requires using more Bootstrap than was provided to us, which was out of the scope of this particular project.

Part 6: Final Notes to the Graders

Three specific strengths of our site that set it apart include the following:

1. Single-page design: this is the main design feature of our site. Although it seems simple enough to implement, this design brought with it many more challenges than we anticipated. We had to find clever solutions to problems that primarily had to do with our inability to create new pages -- everything had to be done completely on the one page. An example of this is our login, which we amended with a collapsible div.
2. Text Editor: Implementing the Text Editor feature is another strength of our site. It allows user to create more customizable posts and was implemented using Ajax and JavaScript. It adds another dimension of easy usability and customization to our site that we believe makes it stand out.
3. JavaScript: Using JavaScript greatly benefited us and our site. As previously mentioned, our solution of using collapsible divs through JavaScript functions helped us tremendously and allowed us to execute the site as close to our vision as possible -- that is clean, easy, and intuitive to use.

As we mentioned above, the main thing we wished we could implement but could not is smooth scrolling because of our inability to use advanced Bootstrap for this project. Something

we would like to implement if given the time would be a more elegant design for our login. We would like to create a drop-down box that floats over the banner of the site rather than a div that pushes the banner and everything else under it down.

Overall, our team worked very well together and had a great completing the project. We hope you enjoy our site.