# Final Design Journey

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Section: 206

# Design Journey Part 1

# Part 1: Client Selection

# **Client Description**

Tell us about your client. Who is your client? What kind of website do they want? What are their key goals?

Our client is Cayuga Heights Elementary School PTA and our person of contact is a working mom who's a member of the PTA.

They want a website where they can go to (a repository of events and sign up sheets for volunteers, etc) to get information e.g. emails link to the website to figure out where to go to volunteer, with a calendar to help plan.

Their key goals are to keep parents and teachers up to date on all events and to make sure that if they want to interact, they have an easy way of reaching out to one another.

**NOTE**: If you are redesigning an existing website, give us the current URL and some screenshots of the current site. Tell us how you plan to update the site in a significant way that meets the final project requirements.

There's an existing site for reference on the information, but we're building our site from scratch.

# **Target Audience**

Tell us about the potential consumers of this website. How, when, and where would they interact with the website? Get as much detail as possible from the client to help you find representative users. This will make it easier for you to test your site on potential users and to generate useful personas.

The potential consumers of the website are teachers, parents, and students, but mainly targeting teachers and parents.

What different groups might use it for:

- Students: Educational games
- Teachers and parents: feedback and reviews, communication, planning

They would come onto the site whenever they need information about events and to plan their schedule or when they want to get information. This means they might go onto the website from laptops/desktops or through their mobile phones. We want to make it easy for someone to update the website and keep it up to date.

## Purpose & Content

Tell us the purpose of the website and what it is all about.

The purpose of the website is to give teachers and parents a place to plan events and interact with one another. We want to have a calendar of events where people who are given a specific access code can add or update events, as well as an easy way for parents to send out questionnaires about different events (e.g. to get volunteers). We also want for it to have a way to link to the profiles of teachers and also have different links for educational games/videos for the students.

# **Hosting Plan**

Where will the site be hosted?

They're hosting at sites.google.com for their current site. We're going to host it currently on the course server while we're working on it.

# **Needs and Wants**

In this table, collect your client's and target audience's needs and wants for the website. Come up with several appropriate design ideas on how those needs may be met. In the Memo column, justify your ideas and add any additional comments you have. There is no specific number of needs required for this, but you need enough to do the job.

Needs and wants (What does your client and audience need and want?)	Design ideas and choices (How will you meet those needs and wants?)	Memo (Justify your decisions; Additional notes)
Client wants to have different functionalities for parents and teachers; She does not want random people posting to the website	Create a login feature with an extra authentication key to verify the user's identity.	Using a key that an admin will provide to the user to log in with, that way we can authenticate their identity.
Client wants people to be able to access the website whenever they need information, whether about contacting teachers or otherwise.	Making the website mobile-responsive will allow people to access the website whenever and wherever	
Client wants people to be able to interact with the site and gather information about events	Allow admin to create surveys, to add events into the calendar, add upcoming events, and to let people fill in email information (email lists)	
Client wants a dropdown navbar as well	Get pictures and resources from	Social media tabs stay the

as to keep certain things from the old website: logo, rotating pictures, social media tabs	client.	same but wanted on the right column
Client wants an interactive page linking to different teachers and their websites as well as a "how to get involved" page for parents and teachers	Put relevant resources and links in different sections and combine survey API.	

# Part 2: Project requirements

# Design

What design elements should be utilized? Tell us about the design elements you plan to have for the site. Do they fit your client's needs? Why did you choose to follow (or not to follow) the client's expectations? If you chose not to accommodate a need, why did you make that decision?

We will be creating a multiple page website with left-hand navigation, to keep the theme consistent with the current website. The website will be revamped to eliminate some tabs on the navigation, and we will design a new set of tabs / sub-tabs to keep the interface streamlined and easy to navigate. We'll adapt a light theme for the website, with accent colors for the different user groups including parents, teachers, and students.

#### Client's Edits

Does the client need the ability to edit the site after the end of the semester? If **Yes**, tell us how you site fit your client's need. If **No**, write down N/A.

The client shouldn't need to be able to edit the structure of the website after the end of the semester, but they should be able to add content to the website through the forms that we structure for the admin. Our site will fit the client needs through the different aspects listed above in the client's needs e.g. surveys, events in the calendar.

# Information Architecture, Content, and Navigation

Lay out the plan for how you'll organize the site and which content will go where. Note any content (e.g., text, image) that you need to make/get from the client.

**Note**: As with the Needs and Wants table, there is no specific amount to write here. You simply need enough content to do the job.

Main navigation	Sub category	Content
(List your site's	( List any sub	(List all the content corresponding to main navigation and sub

navigation here)	categories of under the main navigation)	categories)
Home Parents Teachers Students About Admin Login		Home: Coming activity calendar, rotating pictures, social media tabs and so on.  Parents: Activities and information for parents. Allow parents to sign up for activities.  Teachers: Activities and information for teachers. Allow teachers to sign up for activities.  Students: Display resources for students, show interesting pictures and designs  About: Information about PTA  Admin Login: A way for admins to log on the site and update events or send questionnaires

# Interactivity

What interactive features will your site have? What PHP elements will you include?

Much of this is up to you, however, implementing a login system is <u>required</u>. Logging in should not be required to view the site, however it must unlock extra functionality, e.g., admin functionality, comment posting, etc.

Also, describe how the interactivity connects with the needs of the clients/target audience.

Different Elements we'll have:

- Login system: This requires logins for administrators. This allows people who have logged in to post to the site and have extra functionality. It means we'll need a database to store the usernames and login information.
- Forms: We need to allow the admin to add events to the calendar and perform surveys to see when to hold events as well as a page for users to make an account on the site.
- Surveys: We need to allow teachers and parents to sign up for events and activities.

# **Use of Existing Libraries**

What libraries (e.g. editor.js, jQuery Cookie, Image Sliders, jQuery) are you planning to use for the site? What do you have to do to incorporate those libraries? How much of your own code will satisfy the project requirements?

We're planning on using:

- jQuery: just need to include a script link
- Google Calendar API: this will be used for scheduling activities. We will study online tutorials.

#### **Database**

How will you use a database to improve the functionality of the website? Describe a possible schema that could meet your client's needs.

We can use the database not only to store username information for people's accounts, but we can store past data that we don't want to show on the website but still want to keep track of. This will also help our "search the site" functionality.

A possible schema is:

- User table: userID (primary), username (unique), hashed password
- Events: eventID (primary), eventName, date, description, # of reservations
- Reservation: eventID (foreign key), email (unique), name, submit\_date

#### Scale

How large will the site be (approximate number of pages) and how many hours of work will be required to complete it?

The site will probably approximately be 5-7 pages for the general user to see (not including pages unlocked for additional functionality). Including the pages for admins as well, it will probably be anywhere from 7-10 pages. It will probably take around 40 hours total i.e. 10 hours contribution for each member.

# Part 3: Work Distribution

Describe how each of your responsibilities will be distributed among your group members.

Who will be responsible for backing up other members should someone fail to meet a deadline? How will you communicate with each other? What are your expectations for communication? How will you share your design documents and ensure that no one disrupts each other's code? How will you manage deadlines? How you would keep track of task completion and the progress within your group?

If you will be using any tools for scheduling, sharing documents, managing tasks, etc., make sure you describe them here. This is also a good time to identify challenges (like who will be unavailable due to religious holidays or sports events), and how you will manage these challenges. Keep updating this on a regular basis for your own benefit.

If you are not tracking tasks (calendars, shared to-do lists, bug trackers or gantt charts, etc.), you might want to use the basic task tracking table shown below.

Set internal deadlines. Whose task needs to be completed first in order for another person's task to be relevant? Be specific in your task descriptions so that everyone knows what needs to be done and can track the progress effectively. Consider how much time will be needed to review and integrate each other's work. Most of all, make sure that tasks are balanced across the team.

**Note:** Again, you want the right number of items for the job. The table should have enough information such that each team member understands what is expected of them and by when.

We are using Groupme for discussion and making schedule and Google Drive for sharing documents and resources. We will create a GitHub repository to achieve version management. If someone fall behind, we will communicate

with each other and someone else can back up for this situation. In addition, we will discuss with the client and each other to keep track of the process.

Task	Team Member Names and roles	Due Date	Status
CSS + About Page	Eileen Back up: Katerina + Baoyue + Emily	N/A	Not Completed
Home Page (Calendar + Events + Social Media)	Emily + Baoyue Back up: Katerina	N/A	Not Completed
Parents Page	Emily Back up: Baoyue + Katerina	N/A	Not Completed
Teachers Page	Katerina Back up: Baoyue + Emily	N/A	Not Completed
Students Page	Baoyue Backup: Emily + Katerina	N/A	Not Completed
Admin Functionality	Eileen + Katerina Back up: Emily + Baoyue	N/A	Not Completed

# Part 4: Additional Comments

If you feel like you haven't fully explained your design choices, or if you want to explain some other functions in your site (such as special design decisions that might not meet the final project requirements), you can use this space to justify your design choices or ask other questions about the project and process.

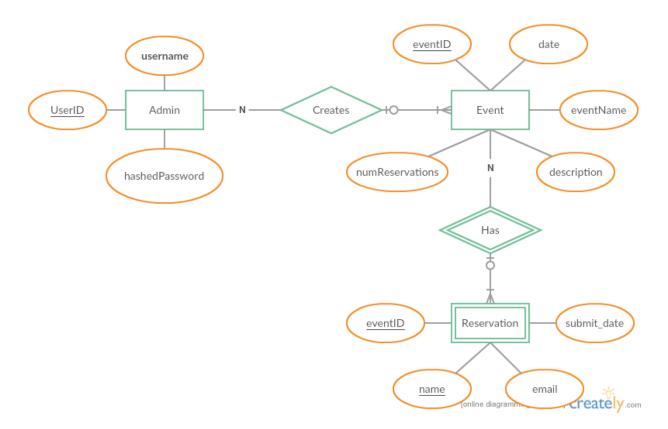
\*\*\* Because of the structure of the website and because the client wanted it separated in terms of the audience each page addresses, there's not really a need for due dates because none of the components depend on one another.

# Design Journey Part 2

# Part 1: Database Design

## Conceptual ER Diagram (different arrows, see slide 13 of Lecture 17; relationship and ER, see lecture 16 and 18)

In this part, please copy and paste your ER diagram for your database below (you can make your ER diagram using any tool of your choice). Make sure the relationships between each entity are clear and well thought-out. Don't forget to indicate what kind of relationship each arrow represents. Your database description should go on the next page.



## **Database Description**

Tell us what the database does. Make sure that you include enough detail so that we are able to understand what is going on in your ER diagram.

Our database will have an admin table, whose primary key will be UserID and add entries will have a username and a hashed password. Each admin will be able to create one or many events, where each event will have a name, date, description and number of reservations. The primary key for the events is eventID. Reservation is a separate table confirms reservation of an event and the fields are the date of submission of the reservation (submit date), the name

of the person and email of the person making it, and the foreign key eventID. The combination of the fields eventID and email will make the primary key of that table.

# Part 2: Website Layout

# **Content Organization**

This should be an improvement upon the table you used in **Design Journey Part 1** 

Main navigation (List your site's navigation here)	Sub category (List any sub categories of under the main navigation)	Content (List all the content corresponding to main navigation and sub categories)
Home		Search Bar: is universal across the entire website  General: has static information about the school and PTA that serves as an introduction to the website
Programs & Events	<ol> <li>Programs</li> <li>Events</li> <li>Courses</li> <li>Committee</li> <li>Involvement</li> </ol>	1. Programs program names and descriptions, these are recurring events that stay consistent throughout the semester 2. Events one-time occurrences, may not be recurring 3. Courses "enrichment" course descriptions for students 4. Committee Involvement how to become involved in various committees, committee chairs and contact information
Meet the Faculty		Contact information for teachers and perhaps a link to their separate websites if they have them. It also includes a picture of each faculty member (if the pictures are provided).
Students		<b>Interactive Games</b> : Embedded games in the page for students to play. This tab would have its own separate styling to encourage students to come on and play.
Resources	1. CHES Website 2. Teachers and Staff 3. CHES Library Website 4. CHSAP After School Program 5. ICSD Website 6. ICSD Academic Calendar	All sub-categories are external links to websites

FAQ		FAQ: questions and answers to frequently-asked questions
Login		Events: This form should allow the admin to add,delete, and view events through the form.  *There's a possibility (view question in additional comments below) that we would need to instead have a database schema just for links to google forms.
Footer (not a part of the main nav bar)	<ol> <li>Main contacts</li> <li>Address</li> <li>Phone Numbers</li> </ol>	Main Contact: Has contact information for main PTA members to contact  Address & Phone #: includes address of the elementary school Additional Info: social media buttons, copyright

# **Navigational Structure**

Explain how users will move between pages. What kind of navigational aids will you have? Will there be a menu bar? A drop-down menu? Tabs? Will you have this available across all your pages?

Tell us why you chose a particular navigation scheme over other possible choices, how the overall navigation of your site will work, how the various pages will be linked, and how the the navigation categories make sense from a user's perspective. You may find it helpful to include a diagram of your site map here.

The users will navigate between pages using a top nav. The tabs in the top nav will mostly consist of direct links, and the "events and programs" tab will include a dropdown for more options. The login button will be placed in the upper right hand corner of the page, and the search bar will be included under the main nav. The navigation will be visible across all pages.

We chose a top nav because we wanted to save space horizontally. Because much of our content consists of tables and calendars, we wanted to utilize the full width of the viewport as much as possible. In addition, we thought that it would be easier to create a responsive website with top nav versus side nav. The various pages are linked through this navigation bar, which should be universal across the pages. We chose to target the content to teachers and parents, primarily, and include an additional tab for students. The navigation categories make sense from a user's perspective because the topics are directed at what information a user might like to see or who the separate subsection is for (i.e. students) The tab for students will be visually distinct from the other tabs in order to encourage use. In addition, the student pages will be visually distinct overall from the other portions of the website so the students will feel as though they are visiting a "student's corner" of sort rather than a single tab on a parents/teachers website.

#### Part 3: Interactive Functionality

What interactive features will your site have? What PHP and Javascript elements will you include? Describe how the interactivity meets the needs of the clients/target audience.

The following interactivity meets the needs of the clients / target audience because it streamlines the use of the website. By including certain interactive elements, it makes it easier for the user to follow the flow of the website, and it allows us to include more "hidden" elements, keeping the site looking cleaner and thus less likely to overwhelm the user or to have sections in places that may be counterintuitive. In addition, we will make the website responsive to allow parents, students, and teachers to access it on other devices as well.

#### **PHP** Interactivity

For each piece of PHP interactivity that you plan to implement, describe what the interaction is, how you will implement it, and which pieces of PHP code are required to complete it. You can describe these in terms of functions if you like, but only if you want to. If there is overlap between PHP and JavaScript interactivity, describe the interaction both here and in the JavaScript Interactivity section on the next page.

- Google Calendar API: There's overlap with javascript. We first use to allow the user to fill in information, which we'll then use javascript to create the events for. After that, we'll use SQL to add the information into the database as well. This makes it easy for the admin to add information using forms once we implement them so they don't have to look at the API.
- Login Functionality: The PHP interactivity with the Login Functionality will be where a certain user will only be able to do certain things, such as create events or send forms, only if he or she is logged in. We will use the session variables in PHP to ensure that only logged users can have access to those things.
- Admin Edit Forms: After the admin logs in, they can edit the content of the website. They can add or delete events and view the list of volunteers of each event. So we are going to implement forms and use PHP to manage database after the forms are submitted. In addition, we will use session variables to guarantee only admins have the right to edit.
- Event pages: We will use PHP to extract information from database and display events on this page. There will be buttons of registration which will lead to a registration form. Users can fill in the registration form to register as a volunteer. We will use PHP to get user's input and insert records into database.

## JavaScript Interactivity

For each piece of JavaScript interactivity that you plan to implement, describe what the interaction is, how you will implement it, and which pieces of PHP code are required to complete it. You can describe these in terms of functions if you like, but only if you want to. If there is overlap between PHP and JavaScript interactivity, describe the interaction both here and in the PHP Interactivity section on the previous page.

- Google Calendar API: The only overlap with PHP are the forms we'll create in PHP to allow the user to fill in information, which we'll then use javascript to create the events for. After that, we'll use SQL to add the information into the database as well.
- Forms: We will use JavaScript to check the user's' input. The forms includes login functionality, edit forms for admins and registration forms for users.
- Photo slider: There will be a photo slider in the index page and we will use JavaScript to implement the slider effect.
- Special styles for buttons, links and so on: we are considering using JQuery to create some special styles for web elements such as buttons and links. This will make our site more attractive and improve user experience.

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? If so, write down the libraries, what you have to do to incorporate those libraries, and how much of your own code will satisfy the project requirements. If there is no change, write down N/A.

We added the possibility of using image sliders and the Google Calendar API, but everything else remains the same.

#### **Part 4: Additional Comments**

If you feel like you haven't fully explained your design choices, or you want to explain specific functions in detail, do so here. You can use this space to justify your design choices or ask other questions about the project and process.

The login functionality and the number of forms in there as well as functionality isn't finalized because we still have to talk to our client to see how she feels about the website layout and clarify what specifically she'd like the admin to be able to do since it wasn't completely fleshed out last time.

**QUESTION**: We submitted what the database schema might look like if it was implemented the way we'd think would be complex enough to meet the project requirements, but last time when we talked with the client, it seemed like they wanted the reservations to be done through a google doc, which means the database would solely consist of an admin table with no relationships to other tables. Would this meet the database requirements for this project?

# Design Journey Part 3

#### Part 1: Necessary Information

1. Please provide us your login username and password.

(if your site has multiple login systems, please specify which username and password corresponded to which login system)

We have two login systems for admin and parents. For both of them, we have email as "username" because our client had some trouble when she try to come up with a username.

# Admin login:

Username: bw476@cornell.edu

Password: 123456

## Parent login:

Username: wangbaoyue@yahoo.com

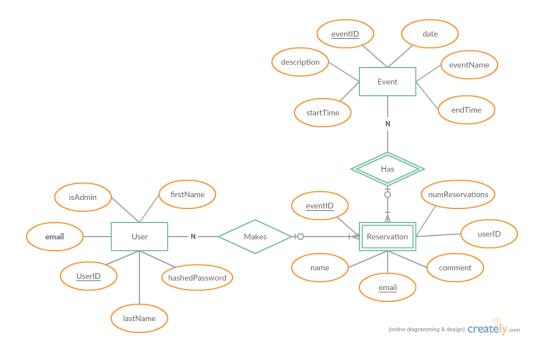
Password: 123456

2. Please provide us your DB login username and password.

Username: beeksp16 Password: gravitas

# Part 2. Database Revision and Implementation

Include your physical ER diagram here and describe any changes you made based on feedback from the previous milestone. Also describe the physical ER diagram (tables, fields, keys, and relationship, please see lecture 17 slides 21).



This ER diagram is different in that because we know that only the admin can create events, it does not really matter which admin created an event. Thus, we have a general user table that's no longer connected to event but to reservation instead with the boolean value isAdmin so we can determine who to allow to create events. This general user is allowed to make multiple reservations and thus has a one-to-many relationship with reservations. And an event can have many users who have registered it. So Events and Reservation have one-to-many relationship. Users and Events have many-to-many relationship. After meeting with the client, we also decided to take out the username portion and just have the email be the username.

#### Description:

This ER diagram has users who have userID as their primary key. They also may or may not be admin based on the isAdmin tinyint value (0 means parent and 1 means admin), and their hashed passwords, names, and unique emails are stored in the user table as well. All of the fields cannot be null.

Users can make reservations to events, and the reservations are identified by eventID and email as the primary key, while eventID is the foreign key for the reservation table. The reservation table also stores the number of reservations a person makes (as some parents might make reservations for their spouses) as well as their comments, possible userID, and name. We still keep track of things like email and name in case users who haven't logged in want to make a reservation, but logging in will just make the reservation process easier for them. The reservation table is a weak entity that only exists as a function of Events table, which is identified by eventID and stores a name, description, data the event occurs, start time and end time. Events can only be created by admin, but because we don't care which admin created the event, we don't distinguish or connect the users table to events directly.

## More explanation of Reservation:

The client want to give guests the opportunity to make reservation. For logged in users, they can just make a reservation by filling in a number and submitting with just one click. For guests, they will be navigated to a form to fill in their information like names, emails, number of people and so on. In both of the cases, a reservation is identified

by event ID and email, so these two fields are the primary keys. For the userID field, the significance of having it is to make it easier when displaying a list of reservations of a logged in user (just need to query the reservation table instead of accessing the users table to get email first). Also the admin may be interested about the numbers of registered users and guest for an event and userID field makes it possible to get the information. For guests when they make reservations this field is null. The comment field can also be null if the user do not want to leave a message.

In our database on the server, we have Users table instead of User, field userID instead of UserID as its primary key, Events table instead of Events. We do not want these small inconsistency to cause any confusion.

#### Part 3: Testing Protocol

How are you going to choose users?

How will they be representative of the target audience? How will you find them? Where will you meet them? Will you compensate them?

Because the three possible types of users are parents, teachers, and children, due to our client's availability and what's easy for her, we have decided to have her test the website as a parent as well as a student from Cornell (since she said that it would be difficult to bring anyone). We're setting up a meeting with them separately; we feel like this will be effective because they will be *actual* users of the website in the future, so their feedback will be representative.

Because of the client's availability, we won't be having a child test the website, but it should be okay because it's likely the parent will be the one directing the child to the website content in the first place.

We will not compensate them, but we will make sure that they understand how appreciative we are of them giving up their time to help us.

What tasks are you going to have them do? How would these tasks connect with the client's needs?

Task name/id	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 whether the site is attractive or distracting	Want to see whether the design communicates client's key site goals to the target audience
Contact Information	Ask the user to find the contact information of a teacher.	Testing whether a potential parent can find info about how to contact people quickly; ideally, they should go straight to meet the teachers.
Login	Ask the user to make a login and find where they can make an event.	Testing whether it's easy for an admin to make an event and make changes to the site.
Students	Find an interactive game for students.	Testing how easy it is to navigate the websites for the students; it should be one click.

Committees	Find the Treasurer of the PTA.	Testing how easy it is to find committee information about the PTA
FAQ	Find the answer to how you can donate to the PTA.	We want to see if they think to go to the FAQ if they don't know the answer to the question.

#### What's your script?

How are you going to welcome them? Reassure them that you're testing the site, not them? Get them to think aloud while they use the site?

We're going to tell them before they start that we're just testing the website to see if anything if in a weird location or doesn't seem right. There are no wrong answers. We will make sure to let them know that their input is very valuable to us because we want to make the website as user friendly as possible, and if they think aloud as they scroll through the website, we will learn the most in order to do so.

How are you going to introduce each task? What wording will you give the user? Will you give them any information in advance (probably not -- they won't have it in a real deployment -- but for sketches and early prototypes you might tell them that some things don't work)? How will you remind them to think aloud? How will you decide when to "give up" on the task?

For each task, we are going to ask them a list of tasks and once they finish one task, we will ask them the next question. We will tell them not to think too hard about the answer, but rather choose whatever comes to their mind first, as if they were an everyday user going on the website. We are not going to give them information in advance because we want to mimic the real environment they would be using the website under. The wording will be so as to make sure we do not give the answer but specific enough as if they were a user looking for something in particular.

We will decide to give up on a task when they can't find the answer after several clicks or when they decide they can't find the answer. It's mainly dependent on them and if they don't take an action for too long, etc.

Afterwards, what specific questions or general opinions will you ask for about their experience or the site? How will you thank them?

Afterwards, we'll ask them whether a task was especially hard or if anything caught their eye as unintuitive or being in a weird place. We will also ask them what their general impression was of the website and whether they think it's the right sort of design for a PTA website. We will also ask if they can think of anything that they would like to be able to do on the website, but was not there.

We'll thank them for taking the time out to help us with the website and make them understand that their input is very valuable to us.

#### Part 4: Testing Note

You should have at least 2 testing users.

#### User 1

1. Who is your user, e.g., where do they come from, what is their background, etc.?

Our user is our client. She is a mom for the Cayuga Heights PTA.

2. How does this user represent your target audience/client's needs?

Since this website is for PTA members, she definitely represents our target audience as she will use this website in the future.

Tasks for user 1	User's reaction/feedback/problems?	<b>Re-design ideas and other notes -</b> what are the different solutions you can think of to address the feedback/problem?
General Impression	It feels empty. The address is wrong. Have more pictures. Make the font bigger. Add a "write a review" section.	Add more pictures, make the font bigger, and add a review section. Don't make it as minimalistic.
Contact Information	The contact information was pretty easy to find.	
Students	It's easy to find on the navbar.	
Login	There's too many restrictions on the username/password; there's difficulty in figuring out exactly what username/password to structure. But she figured out very quickly how to manage the events.	Don't have a username, just make it their email.
Think of something you would normally do on the website. See if you can find it easily.	She decided to search for the teacher information and found it quickly. There was nothing unreachable from the navbar.	

3. Other notes from this user that will be useful to think about when redesigning.

Things to include:

- Put links to the school lunch menu
- Program: students from Cornell come in and expose the students to different foods
- Link to submit pictures to the website for yearbook
- Pages for big events i.e. being able to click on them.
- Review function for games for kids to leave messages

#### User 2

1. Who is your user, e.g., where do they come from, what is their background, etc.?

Our client is a second-year Cornell student studying Operations Research in Engineering. She has designed websites before and therefore, we believe she will have valuable input for us.

2. How does this user represent your target audience/client's needs?

This user represents an everyday user that might go on the website to look for something. As an older sister to a brother who is in elementary school, she can identify what needs one might have when going on the website.

Tasks for user 1	User's reaction/feedback/problems?	<b>Re-design ideas and other notes</b> - what are the different solutions you can think of to address the feedback/problem?
First Impression	Font size in the navbar is small and there is too much empty space	Make the font size bigger and add more pictures
Students	It's easy to find on the nav bar.	
Contact Information	It's easy to find on the nav bar.	
Committee Information	This was a little harder. The user found it but only because she hovered over the events tab by accident and say the tab "Committees"	Put committee tag under people instead of events
FAQ	It's easy to find on the nav bar.	

3. Other notes from this user that will be useful to think about when redesigning. Some notes the user said included:

Potentially add driving directions in the footer Have more options in students page Have the FAQ as a dropdown Include a search bar

#### **Testing Summary and Iteration**

What did you learn? About your users? About your site? About yourselves?

We learned that we have to think about the user when implementing the design, and maybe a design that looks good in general or makes sense to us as people who have used computers for a long time might not work for our target audience. We learned that our site seemed deceptively easy to implement as we ran into quite a few problems. We learned that we have to be very specific about our questions and communication with the client because if we aren't, then we're either missing necessary information or there might be misunderstandings about what requirements the client wants.

What are three key changes you made based on the testing, what alternatives did you consider, and why are they appropriate changes?

- 1. Instead of having a username, we are not just having parents use their email address for logging in. This would make it a lot easier for them to remember and would take away a barrier for usage since our client was having some trouble with the username restrictions. We considered the alternative of just not putting restrictions on the username, but decided to go a step further and just not have that barrier at all.
- 2. We filled out the webpage more, by making the font bigger and using more images to spruce up the website. Since this was a suggestion made by almost everyone who looked at the website, we didn't consider any alternatives and just implemented it directly.
- 3. We included a page for parents to submit yearbook photos. This was something that the client directly wanted, so we didn't consider alternatives. In this milestone, the form does not actually do anything as the php is not implemented yet. The functionality will be added in future milestones.

If you make any changes to the testing protocol for round 2, tell us what they are here.

We didn't make any changes to the testing protocol, just some of the questions we felt would be more appropriate for each group.

#### Part 5: Additional Comments/Questions

If you have additional info/comments/questions about testing or the state of the project, you can put them here. However, you might get better responses in office hours at this point in the semester.

We didn't manage to fully implement all the changes we wanted to this time around because the client wasn't available to meet until Monday afternoon, so we didn't have much time to rework the changes.

We've decided not to use the google calendar API as it requires access to a PTA member's google calendar, and it would be difficult to communicate with them enough to have implemented and would be a hassle if we ran into any issues (it's more of a time constraint issue).

We decide to use PHP instead of Javascripts to check user's input because the user may disable JavaScript.

The client wishes to let guests be able to upload a picture to the yearbook but not necessarily be displayed on the website. These pictures will then be reviewed by the admins, who will decide what they want to post on the website and/or yearbook. We are still discussing this new feature with her and have not decided if we are going to have a separate table for pictures. Therefore, we did not include it in the ER diagram and our physical database.

# Design Journey Part 4

# Part 1: Necessary Information

1. Please provide us your login username and password. Remember, your username and password should be hashed. (if your site has multiple login systems, please specify which username and password corresponded to which login system)

#### Admin login:

Username: bw476@cornell.edu

Password: 123456

# Parent login:

Username: wangbaoyue@yahoo.com

Password: 123456

2. Please provide us your DB login username and password

Username: beeksp16 Password: gravitas

#### Use of Existing Libraries

As there may have been some changes, please give us the most up-to-date list of existing libraries that you are using for your website (e.g. editor.js, jQuery Cookie, Image Sliders, jQuery). What did you have to do to incorporate those libraries? How much of your own code satisfied the project requirements?

For libraries, we only used jQuery to improve interactivity. We were going to use the Google Calendar API and possibly a photo image slider, but we discovered that we could implement more functionality without them, so we chose not to in the end. This also means that all of our code for the functionality was our own.

# Part 2: Testing Protocol

1. How are you going to choose users?

How will they be representative of the target audience? How will you find them? Where will you meet them? Will you compensate them?

Because the three possible types of users are parents, teachers, and children, due to our client's availability and what's easy for her, we have decided to have her test the website as a parent as well as two students from Cornell (since she said that it would be difficult to bring anyone). We're setting up a meeting with them separately; we feel like this will be effective because they will be *actual* users of the website in the future, so their feedback will be representative.

Because of the client's availability, we won't be having a child test the website, but it should be okay because it's likely the parent will be the one directing the child to the website content in the first place.

We will not compensate them, but we will make sure that they understand how appreciative we are of them giving up their time to help us.

2. What tasks are you going to have them do? How would these tasks connect with the client's needs? What tasks are you going to have them do? How would these tasks connect with the client's needs?

Task name/id	Task description	Task goal/what's being tested/expected outcomes
First/Second impression	Ask the user to look at the site for 5 seconds and describe whether the site is attractive or distracting	Want to see whether the design communicates client's key site goals to the target audience
Contact Information	Ask the user to find the contact information of a teacher.	Testing whether a potential parent can find info about how to contact people quickly; ideally, they should go straight to meet the teachers.
Login	Ask the user to make a login and find where they can make an event.	Testing whether it's easy for an admin to make an event and make changes to the site.
Students	Find an interactive game for students.	Testing how easy it is to navigate the websites for the students; it should be one click.
Committees	Find the Treasurer of the PTA.	Testing how easy it is to find committee information about the PTA
FAQ	Find the answer to how you can donate to the PTA.	We want to see if they think to go to the FAQ if they don't know the answer to the question.
What changes do you like?	See if anything new catches their eye as good	We want to see what stands out.
What changes do you dislike?	See if anything new catches their eye as bad	We want to see what stands out

# 3. What's your script?

How are you going to welcome them? Reassure them that you're testing the site, not them? Get them to think aloud while they use the site?

We are going to tell them before they start that we're just testing the website to see if anything if in a weird location or doesn't seem right. There are no wrong answers. We will make sure to let them know that their input is very valuable to us because we want to make the website as user friendly as possible, and if they think aloud as they scroll through the website, we will learn the most in order to do so.

How are you going to introduce each task? What wording will you give the user? Will you give them any information in advance (probably not -- they won't have it in a real deployment -- but for sketches and early prototypes you might tell them that some things don't work)? How will you remind them to think aloud? How will you decide when to "give up" on the task?

For each task, we are going to ask them a list of tasks and once they finish one task, we will ask them the next question. We will tell them not to think too hard about the answer, but rather choose whatever comes to their mind first, as if they were an everyday user going on the website. We are not going to give them information in advance because we want to mimic the real environment they would be using the website under. The wording will be so as to make sure we do not give the answer but specific enough as if they were a user looking for something in particular.

We will decide to give up on a task when they can't find the answer after several clicks or when they decide they can't find the answer. It's mainly dependent on them and if they don't take an action for too long, etc.

Afterwards, what specific questions or general opinions will you ask for about their experience or the site? How will you thank them?

Afterwards, we will ask them whether a task was especially hard or if anything caught their eye as unintuitive or being in a weird place. We will also ask them what their general impression was of the website and whether they think it's the right sort of design for a PTA website. We will also ask if they can think of anything that they would like to be able to do on the website, but was not there.

We will thank them for taking the time out to help us with the website and make them understand that their input is very valuable to us.

## Part 3: Testing Notes

You should have tested your site on at least three representative users.

## User 1

1. Who is your user, e.g., where do they come from, what is their background, etc.?

Our user is our client. She is a mom for the Cayuga Heights PTA.

2. How does this user represent your target audience/client's needs?

Since this website is for PTA members, she definitely represents our target audience as she will use this website in the future.

Tasks for user 1	User's reaction/feedback/problems?	Re-design ideas and other notes - what
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		are the different solutions you can think of to address the feedback/problem?
General Second Impression	- generally good! just some functionality issues - likes the new UI for the home page - likes the new courses page	- Maybe make the important notice for courses clickable
Opinion on new functionality	-Make a reservation: also add a volunteer button - let parents know that you can log in to make reservation	Changes are specific, will implement
What is one feature you'd definitely keep and one you'd definitely delete?	-KEEP: Consistently have links to google docs for people have a form or delete a form	Will add as an additional requested feature after the site is implemented; for now, we're using a database.
What changes do you like/dislike?	- don't think reservations are helpful (don't normally have people sign up for events), rather have volunteer - like that you can use it without username and password	Changes are specific, will implement

- 3. Other notes from this user that will be useful to think about when redesigning.
  - Include ability to have hyphens for names
  - Add lunch menus (maybe under resources)
  - Changing background image for home page
  - Most important is add volunteers (reduce number of emails that come in and make it a place where people go).

## User 2

1. Who is your user, e.g., where do they come from, what is their background, etc.?

Our user is a second-year Cornell student studying Operations Research in Engineering. She has designed websites before and therefore, we believe she will have valuable input for us.

2. How does this user represent your target audience/client's needs?

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/Second impression	-Great first impression -easy to navigate -like the clean look	She mentioned a few times that this design has significantly improved since user testing of milestone 3
Contact Information	Easy to find	
Signup	User signed up and made a reservation, she found it easily	
Students	Easy to find	
FAQ	Easy to find	
What changes do you like?	Really like the changes, especially the home page	
What changes do you dislike?	Would maybe make the font a little bigger	Make the font bigger

3. Other notes from this user that will be useful to think about when redesigning.

The user said that this version of our website has shown great improvement since last time. She really liked the changes that we implemented and her only comment was to possibly make the font a little bigger although she did not find that completely necessary. Overall, she said that all tabs were straightforward and she liked the layout.

#### User 3

1. Who is your user, e.g., where do they come from, what is their background, etc.?

Our third user is a third-year student at Cornell University in the Engineering school. The reason we chose him as a user to test our website on is because he has a very different background than our other two users and he is a member of the Cornell Consulting Club. We would like to see if our website appeals to different groups of people since our target audience is very diverse and we do not want to only target a specific subsection of it. Also, given his consulting experience we believe that he will be able to identify any issues with our website.

2. How does this user represent your target audience/client's needs?

This user represents our client's needs in that we want our website to appeal to different users. Unlike our first user, he represents the younger pool in our target audience and unlike our second user, he is a male. Also, as a consultant in training he will be able to understand the client's needs from experience.

Task for user 3	User's reaction/feedback/problems?	<b>Re-design ideas and other notes</b> - what are the different solutions you can think of to address the feedback/problem?
First/Second impression	-Very good first impression, appropriate for the theme of the website -Really like that the navbar is simple yet has all the information needed -Like the pictures and minimalism	
Login	Easy to find	
Students	Easy to find	
Committees	Easy to find	
What would you like to see changed?	-It took some time to find something but he said that if he had to change something he would maybe make the font in the navigation bar bigger on hover	We thought about making the font bigger on nav bar but decided not to implement it because we believe that would create more clutter

3. Other notes from this user that will be useful to think about when redesigning.

This user was tested after we had already implemented the changes from the previous two users. He could not think of any changes he would like to see, which was our goal for the final design of our website.

## Part 4: Testing Summary and Iteration

1. What did you learn about your users? About your site? About yourselves?

Overall, our website had a very positive reaction from all three users, even though they all have different backgrounds. We changed our design multiple times but the final design appeals to different kinds of users, which was our goal since our target audience is quite diverse including teachers, parents as well as students. The added functionality from the existing website will definitely meet the client's needs and wants and will hopefully leave the members of Cayuga Heights Elementary School PTA satisfied.

We learned that as long as communication happens, users give very good feedback and insight into what probably should be changed. In terms of our site, we learned that we need different UI designs for different situations, as our

original UI was a little too simple, but likely would have worked in a different setting. As a team, we grew as well, learning to communicate about things that might seem trivial but aren't and determining who needs to do what.

2. What are three key changes you made based on the testing? What alternatives did you consider? Why are these changes appropriate?

Three changes we made based on the testing are:

- We made the UI a lot less simple; people thought it was too plain, that there wasn't really much there, so we spruced it up with pictures and added different colors as well instead of just blue. There weren't really alternatives to consider; we considered the changes appropriate as it was what all our users told us should happen. We also consulted other elementary school websites for ideas.
- 2. We added more interactivity: we allow people to not only make reservations for events but to volunteer for them as well. These were requests that the client specifically made.
- 3. Instead of having the yearbook functionality on the home page, we moved it to the navbar, as we thought that would make it seem like a more permanent part of the site as opposed to a promotional one time event if we put it on the home page.

#### Part 5: Final Notes to the Clients

1. Describe in some detail what the client will do (or would have to do) in order to make this website go live. What is the deployment plan?

The client can either choose to use a hosting service like GoDaddy and merely host the website on that site, in which case they wouldn't have to mess with the code. They simply upload the files to the website after making an account and registering for a domain. GoDaddy also provides more specifics on how to host, but that's the general gist of it. That is one option.

The other option that the client will, because their current site is a Google Sites website, use google sites. After doing research, we've discovered that because google.sites isn't actually a hosting service, it doesn't support custom sites. The HTML code can be copied over to the site and should work just fine, but the layout and design would have to be recreated through the Sites interface. This likely means the javascript/jquery elements and css would all have to be redone using google sites.

2. Include any other information that your client needs to know about your final website design. For example, what client wants or needs were unable to be realized in your final product? Why were you unable to meet those wants/needs?

We implemented almost all of the client's needs concerning the website design. We included more pictures as requested and made it appealing for a wide range of audience. We kept the school's colors as a background theme and made the design simple yet straight-forward. The only thing that was not included but mentioned in earlier milestones was a photo slideshow for the home page. The reason we decided not to implement it was because our client was satisfied with having a background image instead of a slideshow and because of time constraints we decided to focus our time on adding functionalities to the website.

Below are depicted some screenshots from existing website and our redesigns of them (NOTE: this does not include all the pages of our website, only some examples. Our website also has a significant amount of added functionality):

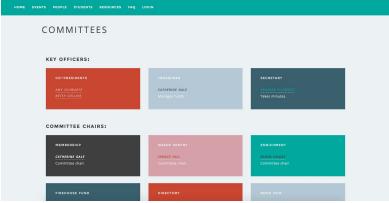
# Home Page:





# Committees Page:





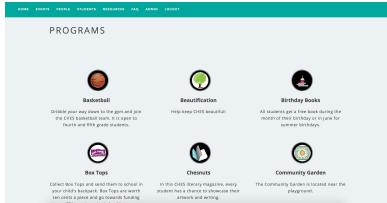
# Events Page:



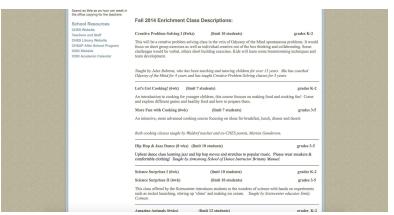


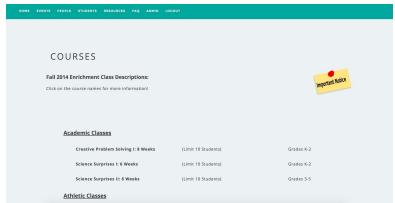
# Programs Page:





# Courses Page (Click on Important Notice!):





#### Part 6: Final Notes to the Graders

- 1. Give us three specific strengths of your site that sets it apart from the previous website of the client (if applicable) and/or from other websites. Think of this as your chance to argue for the things you did really well (justify the wow factor of your website).
  - I. Clarity: Our website makes it a lot more clear what functionalities the website will provide, and we think it's significantly easier to find everything with the way we've grouped things in the navbar.
  - 2. Presentation: The old website was very straightforward in terms of the information it provided in simple text; ours is able to provide the same information in a more creative manner such as using cards for contacts and having pictures associated with different programs that will make the website more engaging for the user. We have several elements that help make the user experience easier and avoid having too much unnecessary clutter in the website.
  - 3. Functionality: Our client had very specific requests as to the functionality she would like to see on the website. We have the ability for users to volunteer and create reservations for events through creating user accounts. We also have separate admin accounts that can manage events as well. This is better than using the Calendar API because this gives more information to the admin about what to expect, while the Google Calendar API doesn't have that functionality. In addition, we allow people to upload yearbook photos as well.

2. Tell us about things that don't work, what you wanted to implement, or what you would do if you keep working with the client in the future. Give justifications.

We wanted to implement a feature where the admin could simply download the yearbook pictures from the site by clicking on a button, but we ran out of time at the end. This makes it so that the administrator doesn't have to go onto the server to grab the pictures and makes their life easier; however, the process of pulling pictures from a folder on the server itself isn't too difficult, so we felt justified in leaving this portion off when we ran out of time, as we already have a lot of other functionality.

To the best of our knowledge, there isn't anything that doesn't work.

3. Tell us anything else you need us to know for when we're looking at the project.

N/A