



## **CS307 Sprint 1 Planning Document**

### **Team 16**

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NOTE: Revised edits are highlighted and the replacement/reasoning is underneath

## **Sprint Overview**

During this sprint, we hope to implement the core functionality of Dragon Drop. We will implement the server and database to interface with the client. Then we will construct Dragon Drop's basic features. Users can view a simplified homepage where they can choose to login or create an account. After doing either the user is brought to a user page where they can access existing pages or create new ones. On pages users can implement four basic components: text, images, shapes, and buttons. Components can have their position and size modified using the movement and resize tools.

**Scrum Master:** Mark Lim

**Meeting Plan:** Tuesday/Thursday @ 10:15, and a weekend meeting at variable times.

### **Risks and Challenges**

- Figuring out where to start with any frameworks and how to link together our different platforms like React, Node, GitHub, and more.
- Creating, linking, and accessing our database on our website.
- Which format to save user's projects as.
- Being able to work efficiently and effectively with separate team members without stepping on each other's toes or without having to wait for others.
- Not having a set weekend meeting time may lead to some or all members missing out on Scrum meetings.

## Current Sprint Detail

### User Story #1

As a user, I would like to be able to create a new Dragon Drop account so that I can create my own websites.

#	Description	Unit Test	Estimated Time	Owner
1	Create a user class	Dummy user should be created with all fields filled out and compared to make sure the fields contain the correct information and format.	4 hours	Ancil
2	Setup database and store user data in database	Create dummy user using credentials and pass it into the database, then query the database to see if it is there and the information matches	5 hours	Charlie
3	Have a pop-up which can be used to create new accounts, accessible from the home page.	Check if the information put into the page to create new accounts stores the user data in the database.	4 hours	Lucy

Total estimated time: 13 hours.

#### Acceptance Criteria:

- Given that the connection between the user and the database is set up correctly, when the user inputs valid credentials then I expect the information to be correctly stored in the database.
- Given that the connection between the user and the server is set up correctly, when the user successfully registers then the user is immediately taken to the user projects page.
- Given that the duplicate user ID checker algorithm functions properly, when the user inputs an existing account information then show prompt that the account already exists.

## User Story #2

As a user, I would like to log in to my Dragon Drop account so that I can create websites and access my saved projects.

#	Description	Unit Test	Estimated Time	Owner
1	Access user data in a database	Create a generic user, request their data from the database and confirm it returns the correct info.	2 hours	Ancil
2	Check if credentials match what is stored in database	Create a generic user, pass in the correct email but wrong password and confirm the server denies the request.	2 hours	Ancil
3	Have a pop-up which can be used to login, accessible from the home page.	Confirm that when the login button is pressed, a login pop-up is served to the page.	4 hours	Lucy
4	Have a show password button	Confirm that when the show password button is pressed, the front facing contents of the password field changes from a series of dots to the entered text.	30 min	Lucy

Total estimated time: 8.5 hours.

### Acceptance Criteria:

- Given that the login feature has been implemented, when I go to the Dragon Drop home page, then I will see a button to log in.
- Given the login button functions properly, when I press the login button, then a pop-up will appear prompting me to enter my email and password.
- Given that the login pop-up is connected to the database, when I enter my information, then the server will check the database to confirm it is correct.

- Given that the server properly handles a login request, when I enter my information and it matches with a user in the database, then the server will return the correct user page.
- Given that the show password button has been implemented, when I press the show password button, then I will be able to see the password I have typed instead of a series of dots.

### User Story #3

As a user, I would like to be notified that I input my login credentials incorrectly so that I can re-input my login.

#	Description	Unit Test	Estimated Time	Owner
1	Determine if the password is wrong or if the account does not exist	Send a query to the database for a nonexistent user and confirm that the database gives the correct response.	1 hour	Ancil
2	Must generate an alert if the password was incorrect.	Confirm that when an incorrect entry is given, the pop-up generates an alert.	30 min	Lucy
3	The password field will be cleared upon incorrect login	Confirm that after an incorrect login, the password field is empty.	30 min	Lucy
4	User login email will stay in the text field	Confirm that after an incorrect login, the email field has not been modified.	30 min	Lucy

Total estimated time: 2.5 hours.

#### Acceptance Criteria:

- Given the user's password is incorrect (does not match the stored password that corresponds with the given email), when they log in then a pop-up informs them their password is wrong.
- Given the user's information does not exist in the database, when they log in then a pop-up informs them their account does not exist.
- Given the user fails their log-in attempt when they try to log in, then their username will be saved and the password field will be cleared.

#### User Story #4

As a user, I would like to be able to view a homepage that provides a description of what can be done on Dragon Drop so that I can have a place to orient myself as well as log-in and read information about the page.

#	Description	Unit Test	Estimated Time	Owner
1	Create UI to display Dragon Drop homepage	Confirm that UI correctly displays Dragon Drop logo and description is formatted correctly	3 hours	Sarah
2	Create button that directs user to Login pop-up when clicked	Confirm that button shows up in correct spot and opens a pop-up window for user login	1 hour	Sarah
3	Create button that directs user to Sign up page	Confirm that button shows up in correct spot and redirects user to Sign up page when clicked	1 hour	Sarah
4	Redirect UI to login popup if user clicks sign up and already has account OR Redirect UI to sign up popup if user clicks login and doesn't have account yet		3 hours	Sarah

Total estimated time: 8 hours.

Acceptance Criteria:

- **Given that the user is not logged in,** when the user accesses the Dragon Drop site then the user will be directed to the home page.
  - As of now, user will always be directed to the home page upon accessing Dragon Drop

- Given that the home page loads properly, when the user clicks the login button then a login dialog should popup.
- Given that the home page loads properly, when the user clicks the sign up button then a sign up dialog should popup.



## User Story #5

As a user, I would like to drag a button onto my page and drop them so that I can customize the view/functionality of my page.

#	Description	Unit Test	Estimated Time	Owner
1	Create a Component class that has the properties: clickable, draggable, currently selected, position, size, and color	Confirm that Component properties are changed when a component has been clicked, selected, moved, resized, and colored	10 hours	Brandon
2	Create a Button component that performs a function when it is clicked	Confirm on the UI that after clicking a Button component, the function is performed	2 hours	Mark
3	Create a Button option in the UI so that users can select it	Confirm on the UI that a Button option is shown and a new Button is created after clicking on the option	1 hours	Mark

Total estimated time: 13 hours.

Acceptance Criteria:

- Given that the Button component is implemented correctly, users should be able to create new Buttons that perform the correctly linked functionality.
- Given that the Button option is implemented correctly, when the user clicks on the Button option, a new Button will appear on the UI
- Given that the Button has correctly inherited the Component class properties, a Button should have the properties of clickable, currently selected, position, size, and color

## User Story #6

As a user, I would like to be able to download my created pages so that I can upload them to my own website.

#	Description	Unit Test	Estimated Time	Owner
1	Create a menu for a page including download, rename, duplicate, make private	Confirm that hitting download button exports page files to the local drive	3 hours	Mark
2	Users can select to download the page as an image.	Confirm that hitting download button as image package exports image to local drive	3 hours	Mark
3	As a package the download contains all of the HTML/CSS code and necessary scripts to run the portfolio properly on their own website.	Confirm that downloading page files downloads all of the correct code and scripts	8 hours	Mark

Total estimated time: 14 hours.

### Acceptance Criteria:

- Given that the download button has been implemented correctly, when users access page options on their user page, then they see the option to download the page.
- Given that the download button is responsive, when the user presses the download button, then they see options for how they want to download the page.
- Given that the download options are all implemented, when the user chooses a download option, then our server provides them with the proper file.
- ~~Given that the web package system has been implemented correctly, when the user downloads a web package, then they can host it on their own site with all of the functionality it had on ours.~~
  - This acceptance criteria proved to be too difficult and time consuming as basic download functionality is already complex.

### User Story #7

As a user, I would like to be able to save my unfinished page so that I can return to work on the project later.

#	Description	Unit Test	Estimated Time	Owner
1	Create a save button the user can press	Confirm that when the save button is activated, a request is sent to the server.	1 hours	Sarah
2	Overwrite currently existing database content	Check the state of the database before and after a save request and ensure the save overwrites the previous data.	3 hours	Charlie
3	Capture current status of page to display as a small preview on the projects page	Create a generic page and save it, then open it in a separate instance to see if the status was saved properly.	5 hours	Sarah
4	Confirm to the user the page has been saved	Upon saving, ensure the popup clearly reads that the page has been saved and accurately reflects if there were any errors in	1 hours	Sarah

Total estimated time: 10 hours.

#### Acceptance Criteria:

- Given the save button has been implemented, when the user is on a page they are editing, then they will see a save button they can press.
- Given the save button is functional, when the user presses the save button, then the current page info is pushed to the database.
- Given the page info has been successfully saved, when the server finishes saving, then the user sees a confirmation that their page has been saved.

## User Story #8

As a user, I would like to be able to create new pages so that I can begin my work.

#	Description	Unit Test	Estimated Time	Owner
1	Provide button on user page for page creation	Scan the user page to confirm it contains a button that causes page creation.	1 hour	Lucy
2	Implement users creating new pages on the user page.		3 hours	Lucy
3	Confirm user has not already reached their maximum page number.	Request a new page to be created when user has maximum number of pages and confirm the server denies the request.	2 hours	Ancil
4	If they have not reached 5 pages, create a new page under the user in the database.	Confirm that after a valid page creation, the page exists in the database under the user.	1 hour	Ancil
5	Send new page to client for editing (create a Page class).	Confirm that when a new page is created the server replies with the new page's info.	6 hours	Ancil

Total estimated hours: 13 hours.

Acceptance Criteria:

- Given that the user is logged in and has less than the max number of projects, when the user clicks "Create new portfolio" then the user will be redirected to a new blank portfolio project to edit
- Given that the user has reached their maximum number of projects, when the user clicks "Create new portfolio" then a prompt will popup informing the user they have reached the max and to delete an existing project if they would like a new one.
- Given that the user has less than the max and the database accepts a new project, when a

new page is created then a blank page should be inserted into the database and the blank page should show up on the user's list of projects

## User Story #9

As a user, I would like to be able to delete a page so that I can remove an unwanted project.

#	Description	Unit Test	Estimated Time	Owner
1	When the page is prompted to be deleted, the project visual should disappear from the page	Confirm when a project is deleted that the number of projects displayed on the user's screen is reduced by one.	2 hours	Brandon
2	The project's details stored in the database should be removed.	Create a new project and store in the database, then delete it and check to see if the database still has the information.	2 hours	Brandon
3	The user's data structure that stores the project references should delete the project.	The user's data structure should be checked before and after the project is deleted to check to size of the data structure and ensure it was deleted.	2 hours	Brandon
4	A popup should appear stating that the deletion was successful	Upon the deletion button being pressed, a message should be graphically outputted to the user's screen.	1 hour	Brandon

Total estimated hours: 7 hours.

Acceptance Criteria:

- Given that the deletion button has been implemented, when the user selects page options on the user page, then they should see "delete" as an option.
- Given that the deletion button has been implemented correctly, when the user presses the deletion button, then the page should disappear from the user page.

- Given that the deletion button interfaces with the database correctly, when a page is deleted, then it is purged from the database.
- Given that the deletion button successfully deletes the page, when the page has been deleted, then a pop-up appears stating that the deletion was successful.

## User Story #10

As a user, I would like to be able to customize colors of website elements using a color tool so I can personalize my website.

#	Description	Unit Test	Estimated Time	Owner
1	The color tool should be added to the edit section when a component is selected.	Confirm on the UI that after selecting a component, a pop-up that contains the color tool shows up	2 hours	Sarah
2	Create a color wheel and when a color is selected along a color wheel, the component's color changes.	Confirm on the UI that after selecting a color from the color tool, the selected component will change to the correct color	4 hours	Sarah
3	The color wheel should include a dropper that will select the color of another component.	Confirm on the UI that the correct color is selected from the other component	3 hours	Sarah
4	The color wheel should have a palette of recently used colors.	Confirm that recently used colors are present in the UI and are accurate to the recently used colors	2 hours	Sarah
5	The color wheel should be able to take RGB and Hex values manually.	Confirm that manually entering hex values come up with the correct corresponding colors on the color wheel	1 hour	Sarah

Total estimated hours: 11 hours.

Acceptance Criteria:

- Given that the color tool has been implemented, when the user selects a component, then they should see the color customization tool on the sidebar.



- Sidebar has not been made yet, color tool shows next to component.
- Given that the color wheel has been implemented, when the user selects a component, then they can choose a new color from the color wheel ~~on the sidebar~~.
- Sidebar has not been made yet, color tool shows next to component.
- Given that the color tool is functional, when the user changes the color, then the color of the selected component changes to match.
- Given that the color tool has Hex values, when the user enters a hex value, the RGB values should change to match the hex value.

## User Story #11

As a user, I would like to be able to make my profile private or public.

#	Description	Unit Test	Estimated Time	Owner
1	Provide user a button to switch their profile type	Confirm that when the button is activated, a request is sent to the database	1 hour	Charlie
2	Store and update the users profile type in the database	Confirm that the database successfully stores updated information	2 hours	Charlie
3	Implement a search bar that allows users to search for other users' pages		2 hours	Charlie
4	On connection to a user page, determine if the client is allowed to view based on profile type.	Confirm that when a request is made to access a private profile, the server replies with access denied.	2 hours	Charlie
5	On public pages display the user's pages.	Confirm that when a request is made to access a public profile, the server replies with that users page list.	2 hours	Charlie

Total estimated hours: 9 hours.

### Acceptance Criteria:

- Given that the profile privacy option has been implemented, when the user looks at their user page, then they will see a button to switch **their profile each of their portfolios** to private or public.
  - We decided making each portfolio having this option was better as a user might have certain portfolios(uncompleted or sensitive info) they don't want to share.

- Given that the profile privacy option is connected to the database, when the user changes their privacy setting, then the profile portfolio privacy type is updated in the database properly.
- ~~Given that the profile privacy option is checked upon accessing a user page, when someone enters the URL for a user page, then they can only view it if the user page is public.~~
  - Changed to: When a user searches another user, only public portfolios will show.
    - Same reason as the first acceptance criteria.
- Given that public page display has been implemented, when a client views a user page they do not own, then they will only be able to view pages without editing, deleting, or creating them.

## User Story #12

As a user, I would like to drag a textbox onto my page and drop them so that I can customize the view of my website.

#	Description	Unit Test	Estimated Time	Owner
1	Create a text box (and input boxes) option in the UI so that users can select it		1 hour	Lucy
2	Once textboxes are placed user can enter text into them of their choosing.		2 hours	Lucy
3	Text can be modified by being bolded, underlined, font size, and font type.	Confirm that when a request is made to change the font style, the font style is changed.	2 hours	Lucy

Total estimated hours: 5 hours.

### Acceptance Criteria:

- Given that text boxes have been added to the editing mode, when the user goes to the component tab, then they can select a textbox.
- Given that drag and drop has been implemented for textboxes, when the user selects the textbox, then they can place it anywhere on the page.
- Given that text boxes have been implemented, when a user types while they have a text box selected, then their text appears in the text box.
- Given that text modification has been implemented, when a user attempts to change font size and type, then the text size or font type should change.

### User Story #13

As a user, I would like to view a user page so that I can access my already existing and create new pages.

#	Description	Unit Test	Estimated Time	Owner
1	Create a UI that displays the user's profile and existing pages		2 hours	Mark
2	Create a "Create new page" button that directs users to the project editing page to a blank template	Confirm that the database stores a new blank project and the UI is redirected to editing the new project	2 hours	Mark
3	Make existing pages clickable, so that users can be directed to the project editing page with the existing template		3 hours	Mark
4	Create homepage button that directs users back to the homepage	Confirm by activating homepage button and check if page was redirected through URL route	2 hours	Mark

Total estimated hours: 9 hours.

#### Acceptance Criteria:

- Given that the "Create new page" and existing page buttons are implemented correctly, clicking on either should direct the user to the project editing page
- Given the the homepage button is linked correctly, then clicking on the homepage button should direct users back to the homepage
- Given that existing pages are clickable, when the user clicks on a page, then the user is directed to the project editing page.

## User Story #14

As a user, I would like to drag an image/gif onto my page and drop them so that I can customize the view of my website.

#	Description	Unit Test	Estimated Time	Owner
1	Create a image box option in the UI so that users can select it		1 hours	<del>Sarah</del> Brandon
3	Once image boxes are placed, the user can upload an image file to fill it.	The image linked within when uploading an image should match the data of the final image box.	4 hours	<del>Charlie</del> Brandon
4	Users can change the image content of existing image boxes and override previous data.		3 hours	<del>Sarah</del> Brandon

Changes reason: Brandon decided to take over this user story since he was more familiar with the build-ui library.

Total estimated hours: 8 hours.

Acceptance Criteria:

- Given that the user selects an image box, when they drag and drop it onto the page, the image box will appear on the page.
- Given the user has an image locally on their box, when they upload that image file, the image box should be filled with that image.
- Given that the user selects the image box, when they click the change content button, the image should change to be the new image.

## User Story #15

As a user, I would like to be able to choose from a variety of shapes for my page so that I can customize my page.

#	Description	Unit Test	Estimated Time	Owner
1	Create a shapes option in the UI so that users can select it		1 hours	Mark
2	Implement functionality that allows shapes to be a variety of basic shapes: triangles, squares, rectangles, circles, arrows, and stars.		2 hours	Mark
4	Shapes can have functions that happen on click.		3 hours	Mark

Total estimated hours: 6 hours.

### Acceptance Criteria:

- Given that the shape button is available on the components list, when the shape is dragged onto the page, the shape should show itself on the page.
- Given that the shape button is a multi-selectable element, when the user decides to pick a different shape, the ability to choose should be easy and fast.
- ~~Given that the shape button is on the page, when the component is edited, the shape can be edited to be clicked on and redirected to a different page.~~
  - Changed to: Given that the shape button is on the page, when the component is selected, the shape's properties can be edited from the panel.
    - Currently shape resizing and color are retained in other user stories, so this criteria is not necessary.

## User Story #16

As a user, I would like to have a movement tool so that I can relocate components.

#	Description	Unit Test	Estimated Time	Owner
1	When the component is selected and then dragged, it should move accordingly.		4 hours	Ancil Brandon
2	When the keyboard arrow keys are pressed, the component moves a specified number of pixels to the corresponding direction	The test should simulate keyboard inputs and check the position before and after to make sure that the position aligns with the expected position.	3 hours	Ancil Brandon
3	The component menu should have a text box containing the current position data where new coordinates can be inputted manually		1 hours	Ancil Brandon
4	When the user enters manual position numbers the component should move to that position.	The movement function should be applied, and after the function is run, the position should be checked to ensure it is the same as the input.	3 hours	Ancil Brandon
5	When the user clicks the lock icon in the edit menu, the movement should be disabled by any method.	After the lock is applied, movement functions should be applied and the position should be checked to ensure it does not change.	2 hours	Ancil Brandon

Total estimated hours: 12 hours.



Acceptance Criteria:

- Given that the user selects a component when they hold down the mouse button and move the component, the component should follow their mouse
- Given that the user types in position coordinates, when the confirmation is pressed, then the component should instantly move itself to that location.
- Given the user selects a component, when the user presses the arrow key, then the component should move a specified number of pixels.

## User Story #17

As a user, I would like to have a resizing tool so that I can resize components.

#	Description	Unit Test	Estimated Time	Owner
1	When a component is selected, the user should be able to drag the edges/corners of the component to resize the component		4 hours	Brandon Ancil
2	The component menu should have a textbox containing the size data where new dimensions can be inputted manually		1 hours	Brandon Ancil
3	When the user enters manual size numbers the component should resize to the specified height and width	The resize function should be applied, and after the function is run, the size should be checked to ensure it is the same as the input.	3 hours	Brandon Ancil
4	Users should be able to maintain size ratio	After the ratio lock is applied, resize functions should be applied and the ratio should be checked to ensure it does not change.	3 hours	Brandon Ancil

Total estimated hours: 13 hours.

### Acceptance Criteria:

- Given that the resize tool has been implemented, when the user selects a component, then they should see the resizing tool on the border of the component.
- Given that the resize tool is functional, when the user drags on the edges/corners of a selected component, then the size of the component changes accordingly.
- Given that manual size changing has been implemented, when the user enters a manual size value, then the width and height of the component should change properly.

- Given that the aspect ratio lock has been implemented, when the user locks the aspect ratio, then the size can only be changed in a way that maintains the aspect ratio.

## User Story #18

As a user, I would like to have an undo button so that I can revert to previous versions.

As a user, I would like to have a redo button so that I can undo my undos.

#	Description	Unit Test	Estimated Time	Owner
1	Create log to keep track of last 10 previous actions	<del>Perform 10+ actions and ensure the log's size is maintained at 10 and the last in the log is the last action performed.</del>	2 hours	Charlie
2	Implement undo to revert to old changes	Ensure that without having performed any actions, when the undo button is pressed, nothing is done. <del>Ensure that undo will match the state described in the previous changes log.</del> When the undo is pressed the most recent change gets reverted	1.5 hours	<del>Charlie</del> Ancil
3	Implement redo only when user has "gone back" and there are "future changes"	Ensure that without having undone anything, when the redo button is pressed, nothing is done. <del>Ensure that redo matches the state in the previous changes log.</del> Otherwise, when the redo is pressed, the most recent undo gets reverted	1.5 hours	<del>Charlie</del> Ancil
4	<del>Create inverse actions table to be able undo/redo actions. Map each</del>		5 hours	Charlie

	action to an inverse to be used for undoing actions.			
5	Update previous changes log if user undo's and then continues working	After performing an undo, ensure the next action that appears within the previous actions log is the same as the action last done.	1 hours	Charlie

Changes reason: Initial tasks were created with a quick search into undo/redo implementation.

After working on the project, we found a library that we are using to implement the components and it has the undo/redo functionality built in.

Total estimated hours: 11 hours.

Acceptance Criteria:

- ~~Given that the user has performed up to ten actions they no longer want,~~ when the user hits the undo button, then they should have their actions reversed one by one.
  - Same reason as the tasks change.
- Given that the user has undone up to ten actions they want to reinstate, when the user hits the redo button, their actions should be reinstated one by one.
- Given the user has not performed any actions, when the user hits the undo button, then nothing should occur.
- Given the user has not undone any actions, when the user hits the redo button, then nothing should occur.

### User Story #19 **INCOMPLETE**

As a user, I would like to bring components forwards and send components backwards

#	Description	Unit Test	Estimated Time	Owner
1	Implement a send backward functionality that sends a component back one layer	When a component is sent backwards, its layer property should be checked to see if it was decremented by one.	3 hours	Lucy
2	Implement a bring forward functionality that brings a component forward one layer	When a component is sent forwards, its layer property should be checked if it was incremented by one.	2 hours	Lucy
3	Implement a send to back functionality that sends a component to the bottom layer	When a component is sent to the back, its layer property should be checked to see if it is the minimum layer value.	1 hour	Lucy
4	Implement a bring to front functionality that brings a component to the top layer	When a component is sent to the front, its layer property should be checked to see if it is the maximum layer value.	1 hour	Lucy

Change reason: Did not have time to implement. Added this user story as a result of reaching 180 hours since estimated times of tasks were reduced due to possible overestimation.

Total estimated hours: 7 hours.

Acceptance Criteria:

- Given the user has created components, when a component is sent backwards, then it should be covered by other elements in a higher layer if they occupy the same space.
- Given the user has created components, when a component is sent forwards, then it should cover other elements in a lower layer if they occupy the same space.

- Given the user has created components, when a component is sent to the front, then it should cover every element if they occupy the same space.
- Given the user has created components, when a component is sent to the back, then it should be covered by every other element if they occupy the same space.

# Backlog

## Functional Requirements

### Login

- ~~1. As a user, I would like to be able to create a new Dragon Drop account so that I can create my own websites.~~
- ~~2. As a user, I would like to log in to my Dragon Drop account so that I can create websites and access my saved projects.~~
- ~~3. As a user, I would like to be notified that I input my login credentials incorrectly so that I can re-input my login.~~
4. As a user, I would like to be able to send a password reset request to my email if I forget it so if I forget my password or lose it I can still login.
5. As a user, I would like to be able to log out so that I can keep my account private.

### Project access

6. As a user, I would like to access instructions on how to use Dragon Drop tools so that I can learn how to navigate and create with Dragon Drop.
- ~~7. As a user, I would like to be able to view a homepage that provides a description of what can be done on Dragon Drop so that I can have a place to orient myself as well as log in and read information about the page.~~
- ~~8. As a user, I would like to be able to create multiple pages so that I can have different websites for different things.~~
- ~~9. As a user, I would like to be able to save my unfinished page so that I can return to work on the project later.~~
- ~~10. As a user, I would like to view my unfinished projects so that I can update or delete them.~~
- ~~11. As a user, I would like to be able to delete a website so that I can remove an unwanted project.~~
- ~~12. As a user, I would like to be prompted with a confirmation before deleting a project so that my project won't be deleted if I accidentally clicked delete.~~
13. As a user, I would like to be prompted when I want to create a new project but I reach the maximum number of projects per user so that I am directed to delete a project.



14. As a user, I would like to be able to view other user accounts to see what websites they've built using Dragon Drop so that I can take inspiration from other people's websites.
- ~~15. As a user, I would like to be able to make my account private or public so that other people can view my websites if they wish.~~
16. As a user, I would like to feature certain projects publicly on my profile so that other people can only see select projects.
17. As a user, I would like to share my project with other users so that they can view the website preview.

### **Page customization**

- ~~18. As a user, I would like to drag a textbox onto my page and drop them so that I can customize the view of my website.~~
- ~~19. As a user, I would like to drag a button onto my page and drop them so that I can customize the view/functionality of my website.~~
- ~~20. As a user, I would like to drag an image/video onto my page and drop them so that I can customize the view of my website.~~
- ~~21. As a user, I would like to have an undo button so that I can revert to previous versions.~~
- ~~22. As a user, I would like to have a redo button so that I can undo my undos.~~
23. As a user, I would like to change the sizes of components so that components fit well within the page.
24. As a user, I would like to be able to have the page autosave so I don't lose progress suddenly.
25. As a user, I would like to have a wide selection of font types and sizes to use so that I can have a customized page.
26. As a user, I would like to upload my own media files so I can personalize my page with my own creations.
27. As a user, I would like a site settings page to access and change account settings and site visuals so that I can customize my user experience.
- ~~28. As a user, I would like to be able to customize colors of website elements using a color wheel so I can personalize my website.~~

29. As a user, I would like to be able to choose a template so that I can easily make a presentable website.
30. As a user, I would like to link to my LinkedIn so that I can easily have professional career information displayed on my page.
31. As a user, I would like to include Github functionality so that I can display projects of my own.
32. As a user, I would like to embed links so that viewers can be redirected to a different page.
- ~~33. As a user, I would like to be able to download my page so that I can host it on my own.~~
34. As a user, I would like to be able to disable and enable the editing mode to view the website so I may see how it looks as a final product.
35. As a user, I would like to be able to contact the creators so that I can get additional help.
36. As a user, I would like to be able to resize the window so that my website is compatible with various window sizes.
37. As a user, I would like to be able to navigate between my different pages so that I can have a multilevel website.
38. As a user, I would like to “favorite” certain tools and components so that I can access them faster
39. As a user, I would like to create shortcuts for tools and components to certain keys so that I can switch between tools easily and fast.
- ~~40. As a user, I would like to have a movement tool so that I can relocate components.~~
- ~~41. As a user, I would like to have a resizing tool so that I can resize components.~~
42. As a user, I would like to be able to add animations to elements so that my pages are dynamic and interesting.
43. As a user, I would like to be able to add a header and a footer to my page so that my pages all have a consistent top and bottom.
44. As a user, I would like to be able to choose different styles for each part of my page so that I can express myself creatively.
45. As a user, I would like to be able to create scripts that can be activated by parts of the web page such as buttons so that I can add functionality to my page.

46. As a user, I would like to be able to import my own HTML/CSS code so that I can modify it more easily.
47. As a user, I would like to be able to login using a pre-existing Google, Facebook, Github, or LinkedIn account so I don't have to create a new user account.
48. As a user, I would like to choose between a light and dark mode for Dragon Drop so that I can change the view to my preferences.
- ~~49. As a user, I would like to be able to choose from a variety of shapes for website features such as buttons so I can customize my website with different features.~~
50. As a user, I would like to be able to search for media through the website and add it directly so I can customize my website with media from the web.
51. As a user, I would like to be able to make a gallery in premade templates like slideshows or collages using uploaded photos so that I don't have to make it myself
52. As a user, I would like to see guide lines of when a component is lined up or centered on the webpage so that I can properly align elements on my page.

#### **If time allows**

53. If time allows: as a user, I would like to be able to use Dragon Drop on a variety of different platforms so that I can edit on any device.
54. If time allows: as a user, I would like to collaborate with other users on the same website so they can help me create my website.
55. If time allows: as a user, I would like to edit offline so that I can continue creating websites even without an internet connection
56. If time allows: as a user, I would like to sell ad spots on my website so that I can make money.
57. If time allows: as a user, I would like to be prompted with a spell checker if I spell something wrong so that I can fix my mistakes.

## **Non-Functional Requirements**

### **Architecture**

Dragon Drop will use a separate front end and back end with front end pulling from the back end using API requests. Both ends will be built in Javascript with the front end using React and the backend using Node.js. Using a strong layer of separation simplifies the development process

and makes it easier to create separate versions of Dragon Drop for different platforms. We'll use a database like MongoDB or MySQL to store user accounts / projects.

### **Security**

Dragon Drop makes use of encryption and hashing to protect user accounts. All accounts must be made with an email to ensure password recovery capability. User accounts are by default private to prevent information being revealed to the public without the users consent. Users are only able to edit templates that they have created.

### **Performance**

Dragon Drop can handle 500 simultaneous users at once. Each user can create a maximum of 5 projects. Should be able to load projects in less than 5 seconds. Dragon Drop should be able to stay up indefinitely with no impact to performance.

### **Usability**

Dragon Drop will provide a clean and easy to use interface and support a variety of popular browsers so that users can create projects on their preferred browser. Additionally, we want the interface to support various screen sizes.