

# **Team 16 - Dragon Drop**

Ancil Trent, Brandon Xu, Charlie Hyun, Lucy Cheng, Mark Lim, Sarah Mi

## **Problem Statement:**

Today, having a personal portfolio is vital for any professionals, but learning how to make your own website can be difficult for most people. Dragon Drop seeks to provide an alternative solution: basic web design that can be done by anyone. Users of Dragon Drop will be able to create stylized HTML and CSS based portfolios without ever having to look at code. Users' portfolios can be built from available themes, customized with a variety of options, and shared with others.

## **Background Information**

### **Audience**

Our audience will be people who want to create a digital portfolio to present to potential employers without having to write their own CSS/HTML code.

### **Similar Platforms**

Currently, a variety of website creation and management sites like Squarespace, Wordpress, and Wix exist. However, these are all geared towards a general audience of people who want to create their own websites.

### **Limitations**

Other platforms do not specifically cater to people who want to make portfolios and don't have functionality like resume building, LinkedIn and Github integration, and other features specifically geared towards creating portfolios.

## **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 websites so that I can have different websites for different things.
9. As a user, I would like to be able to save my unfinished website 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.

#### **Website customization**

18. As a user, I would like to drag a textbox onto my website 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 website 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 website 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 website 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 website.

26. As a user, I would like to upload my own media files so I can personalize my website 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 website 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 be able to have options pop up when I select an element for editing, removing, resizing, etc, so I can edit an element conveniently.
41. As a user, I would like to be able to add animations to elements so that my website is dynamic and interesting.
42. As a user, I would like to be able to add a header and a footer to my website so that my pages all have a consistent top and bottom.
43. As a user, I would like to be able to choose different styles for each part of my website so that I can express myself creatively.
44. 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 website.
45. As a user, I would like to be able to import my own HTML/CSS code so that I can modify it more easily.

46. 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.
47. 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.
48. 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.
49. 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.
50. 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
51. 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.
52. As a user, I would like to be able to move page elements in a single direction using the arrow keys so that I can make subtle changes easily.

#### **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.