Project Name: CYOUbism

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Submission Links: Website: https://s2250677.edinburgh.domains/DWDWebsite2/

Video: https://media.ed.ac.uk/media/t/1_xy7wpe77

WEBSITE OVERVIEW

This website brings attention to the styles and history of Cubism in a fun, interactive way. It emphasizes learning through engagement in the hopes that people will learn more about expressing the world around them, or learn more about their own personal styles and tastes. It also aims to build an online community for people to share some Cubist creations of their own, in the hopes that the users will come to see the beauty in this style. Some relevant features of our website include a drag-and-drop canvas tool, an AI-Generated style transfer tool, customized logins for viewing past artwork, and a brief educational slide deck to learn more about this art form.

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METHODOLOGY

For the beta prototype, we continued to use the same tools as before, such as SharePoint, Miro, and Teams. Some of our feedback required us to redesign some pages, so the moodboards in Miro were essential to this planning process.

Finally, all code is backed up on Github.
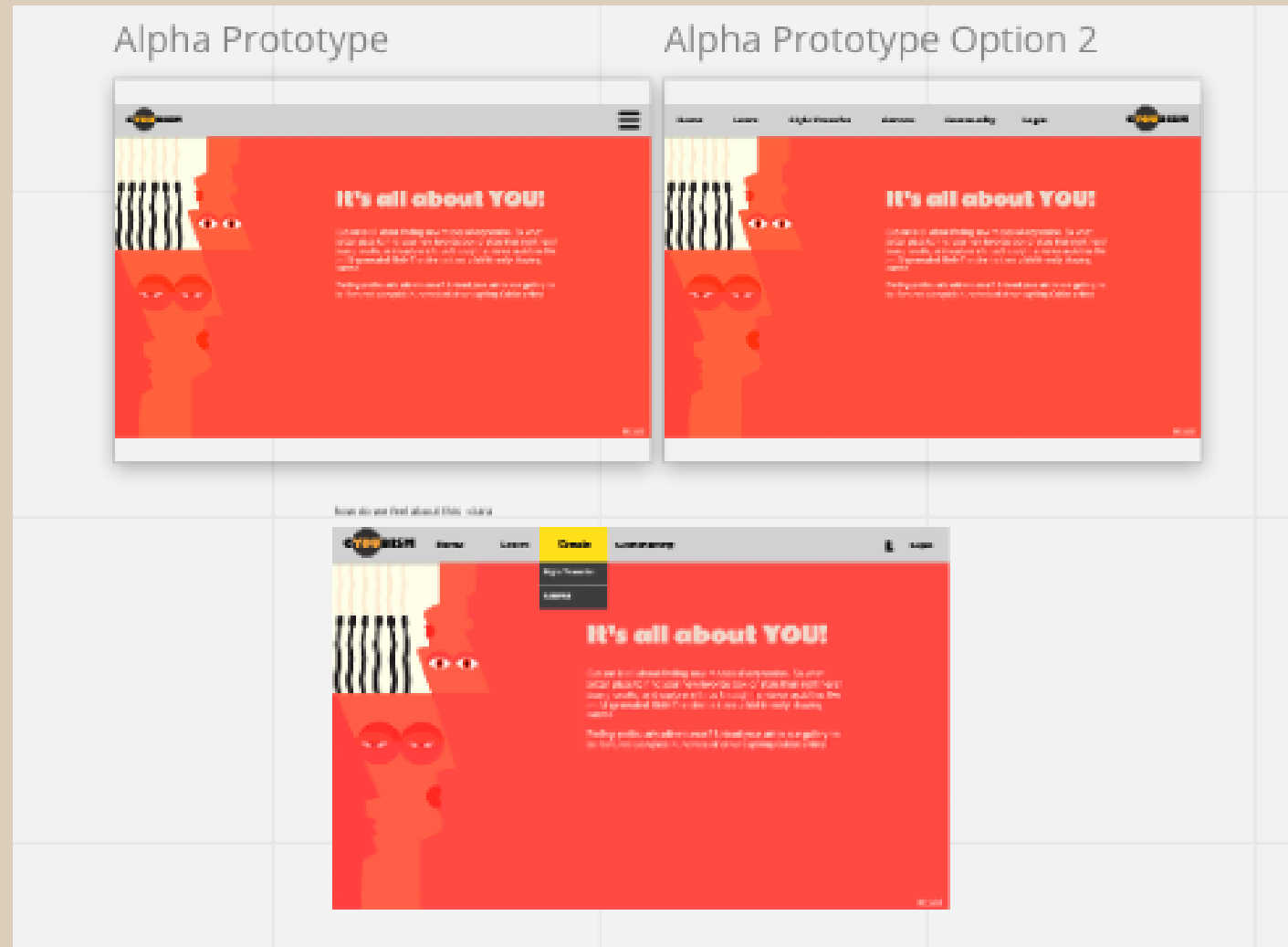
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METHODOLOGY

Figure 1: First mockup of dropdowns and login on navigation bar

EXECUTION

Our Beta submission includes refinements to the Alpha prototype as well as new features to enhance user experience on the site.
Some notable changes include:

1. Adding a login/registration feature with session tracking, so users may view the artwork that they create on the site. This required creating another database table to store usernames and passwords (Ciara, UI: Kate)
2. Adding a "click" effect to all the gallery images for better viewing experience (Ciara)
3. Creating a unified color palette to give the site a more cohesive look (Paulo)
4. Adding more images to the gallery to fill out the space and show off the diverse range of Cubist styles (Paulo)
5. Implementing a sorting feature in the Masters' Gallery to allow for improved navigation of the artwork (Ciara)
6. Restructuring the website organization/navigation bar to be more intuitive (Ciara and Paulo)

   a) Adding dropdown menus to illustrate subsections
   b) Dividing the "Learn" page into two independent pages, so that important features are given due attention and not muddled together
   c) Creating a "Galleries" tab for easy access to artwork

7. Redesigning the Learn page so that it doesn't "hide" information as much (Paulo and Ciara)

   a) By using Wholepage-Slider (a JS library) we allowed "downward scroll" navigation, which is much more intuitive for a casual user. The user also has three options for changing slides: scrolling, clicking the buttons on the right side, and using the arrow keys. This allows users to choose whatever navigation method is best for them.

8. "Call to Action" on home page (Paulo and Ciara)
9. Making the site a bit more responsive/scalable. It still does not work well on mobile, but should be compatible with most browser sizes (Ciara)
10. Adding loading bar to Style Transfer to increase visibility of system status (Ciara)
11. Fixing alignment issues in pages (Kate and Ciara)

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EXECUTION

As a general note, we tried to be conscious of potential web attacks in our site design, and implemented a few measures to keep our site more secure. One example is in our database handling. In extracting data from the database, we combined prepared statements with parameter binding (bind_param), to ensure that inputs from the user are interpreted as Strings and not code. This protects us from SQL injection. We also controlled user inputs to the site— the only way a user can change the site (through regular means) is through their username and through the file uploads. There are no text boxes where a user might inject malicious code into their profile (like the Samy worm), thus preventing XSS. The user cannot upload any file freely to the site— all file uploads are linked directly to elements on the page, which hopefully will discourage hate speech or hate symbols from proliferating on the site. Finally, we hash our passwords before storing them in the database (in case of data leaks), and we also destroy all session variables after logout to protect a user's confidentiality.

There were also times where the F3 framework was less intuitive to use than MySQL and PHP directly— in those cases, we deferred to MySQL and PHP for database management.

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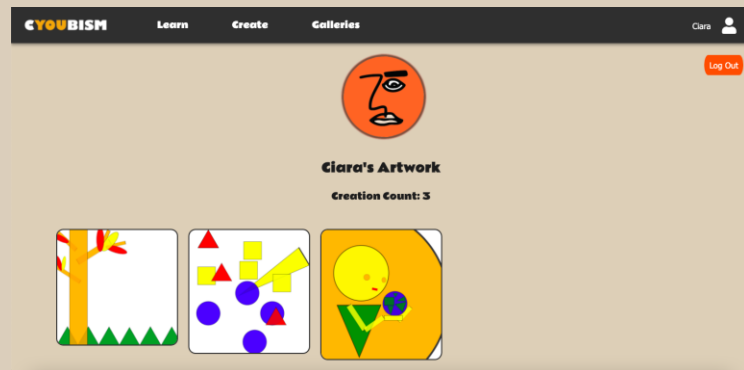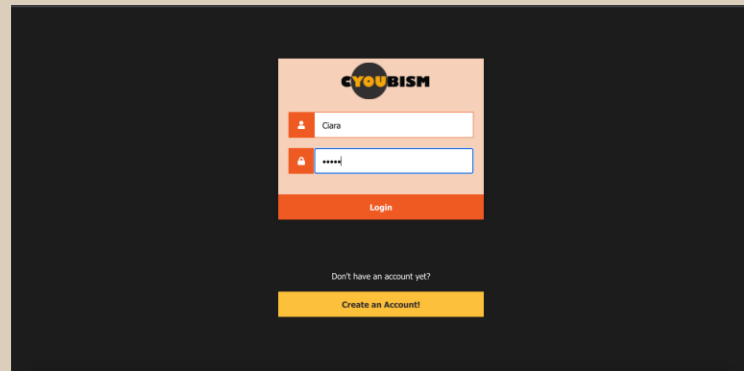
EXECUTION

Figures 2-4:
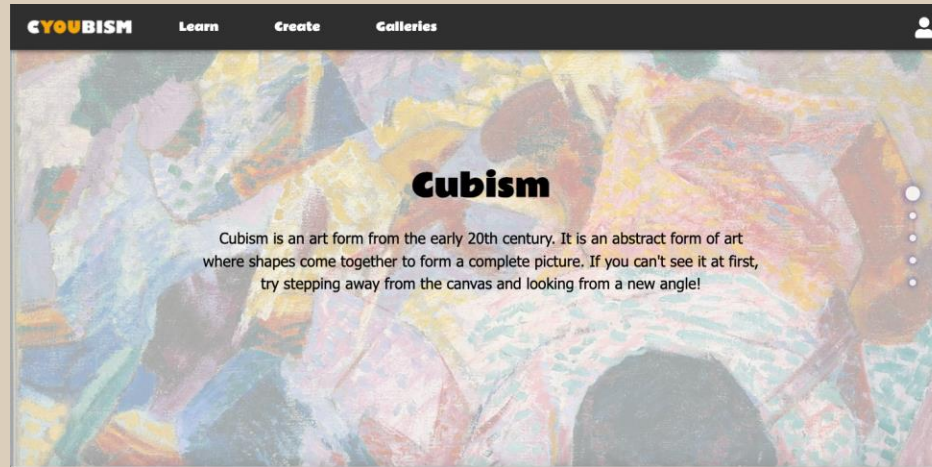Process of logging in users
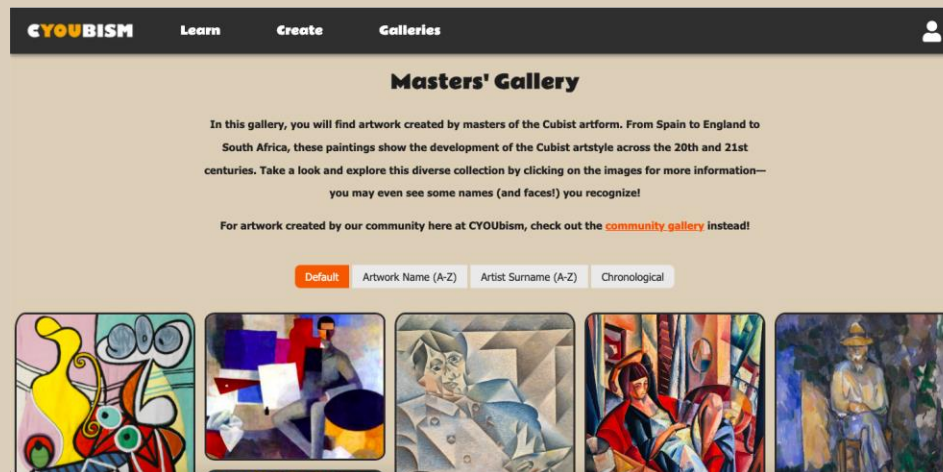
EXECUTION

Figure 5:
Redesigned Learn page

Figure 6:
Redesigned Gallery page

SPECIAL CONSIDERATIONS

- Please use **Safari** to get the best experience with our site. The style-transfer tool is not compatible with Firefox, and depending on your browser settings, login sometimes doesn't work on Chrome, as chromium browsers are known to delete session variables with a 302 error.

- If the Style Transfer Tool isn't working after 4 minutes, try clearing your browser cache, reloading the page, or using a different browser.

- To test the login, you can either create a new account or use the following test accounts:
    - Username: **Ciara ,** Password: **Ciarao**
    - Username: **test ,** Password: **test**

- **Upon successful sign-in, you should see the username displayed in the top right corner. See Special Considerations for more details.**

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AKNOWLEDGEMENTS

- Konva code examples, and documentation ([link](#))
- Interactive Slideshow ([link](#))
- Fast Style Transfer (for AI Style Transfer model) ([link](#))
  - For converting Tensorflow to Tensorflow.js ([link](#))
- ArtUK
  - https://artuk.org/discover/artworks/hafen-la-ciotat-191538/view_as/grid/search/keyword:cubism--licence:1cc/page/1
  - https://artuk.org/discover/artworks/still-life-205532/view_as/grid/search/keyword:cubism--licence:1cc/page/1
  - https://artuk.org/discover/artworks/the-gardener-vallier-le-jardinier-vallier-117722/view_as/grid/search/licence:1cc--actor:cezanne-paul-18391906/page/1
- Met Museum
  - https://www.metmuseum.org/art/collection/search/488486
  - https://www.metmuseum.org/art/collection/search/485555?showOnly=openAccess&ft=cubism&offset=0&rpp=40&pos=8
- Wikimedia
  - https://commons.wikimedia.org/wiki/File:Philip_Absolon._Cassie_Thinking_About_Cubism.jpg
  - https://commons.wikimedia.org/wiki/File:Portrait_of_a_German_Officer,_Marsden_Hartley.jpg
  - https://commons.wikimedia.org/wiki/File:Louis_Marcoussis_Composition_cubiste_au_portrait_1926.jpg
  - https://commons.wikimedia.org/wiki/File:%27Tapestries_of_Desire%27_150x130_cm,_Oil_on_Belgian_linen_by_Hennie_Niemann_jnr_2019,.jpg
  - https://commons.wikimedia.org/wiki/File:Roger-de-La-Fresnaye_-_Sitting_Man.jpg
  - https://commons.wikimedia.org/wiki/File:Juan_Gris_-_Portrait_of_Pablo_Picasso_-_Google_Art_Project.jpg
  - https://commons.wikimedia.org/wiki/File:Louis_Marcoussis_Composition_cubiste_au_portrait_1926.jpg
- iStock Photo
  - Board: https://www.istockphoto.com/collaboration/boards/7-mk1T0GrEOtsoITxAhTDA
- Help button ([link](#))
- Popup form ([link](#))
- Homepage animation ([link](#))
- Isotope/Masonry code examples and documentation ([link](#))
- Login/Registration: ([link](#))
- Designers of the FFF-Simple Example— couldn't have done it without you!

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