Testing Document

Color Works : Group 9

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Unit Testing (5.1)

Includes generating units such as mock input elements which will be fake/test users of the app. These mock users will test the functionality of the account system, third-party payment, and the functionality of each level plan (Bronze, Silver, Gold).

Main Coding Language : React
- Can be compatible on both android and Apple Devices
- Utilize on both front and back-end development
Figma
- Can convert designs into React
- Easy to share designs amongst the group

Unit Testing tool: Jest
An easy-to-use tool with little setup required, and available in Node Package Manager.
- Can be written by anyone familiar with JavaScript
- Available on GitHub/open-source
- Parallel testing is supported
- Efficient and fast operation
- Provides detailed documentation

JEST

Interface Testing (5.2)

Testing appearance

- Surveys and live testing for most of user interface
- Supported by round table discussion comparing multiple design options
- Also approved by clients through rule out process

Through testing process

Testing API

- Postman - Free
- We all have some experience from 309
- Used for testing: functionality, performance, security, and integrity testing using API requests.

Integration Testing (5.3)

- Critical integrations paths consist of our user workflows. There are multiple paths the user can choose to interact with all components but will prioritize creating integration tests for tasks within Basic/Bronze plan since this is the foundation for the more advanced plans.

**User Workflow #1:** As a new user, I want to take the introductory quiz to find out my colors and interaction type.

1. User views the quiz warning page and can select the "Go Back" or "Take Quiz" button
    a. "Go Back" will take the user back to the launch page
    b. "Take Quiz" will take the user to the first question page
2. User has access to all quiz questions on their indicated color path
    a. Tests should verify that no matter the order of the questions, all questions should appear for the user at least once while taking the quiz
    b. If the user still has questions left, clicking on an answer should take them to the next page of the quiz
    c. If the user has answered the last question, clicking on an answer should take them to the results page of the quiz
3. The results page should display the correct color and interaction style for the user

User Workflow #1 can be tested by using multiple "fake users." We can hardcode the input values we want for the quiz and verify that the user gets a specific result.

- **User workflow 2:** New user wants to create a new account
- **User workflow 3:** User with Bronze plan wants to upgrade to silver
- **User workflow 4:** User with upgraded plan wants to cancel membership
- **User workflow 5:** General user wants to access info about their color and interaction style
- **User workflow 6:** User with Silver/Gold plan wants to add another profile to account

System Testing (5.4)

Includes complete testing of whole application. While using application, our team will monitor our code to ensure all information and configurations are working and being stored properly.

- **Test users**: they will run through the process of creating an account, taking personality quiz, interacting with all features requested by client

- **Diverse users**: includes user with single status, couples, and those with families.

- Users will also test various levels (Bronze, Silver, Gold plans) so that the third-party payment portion of app is fully functional.
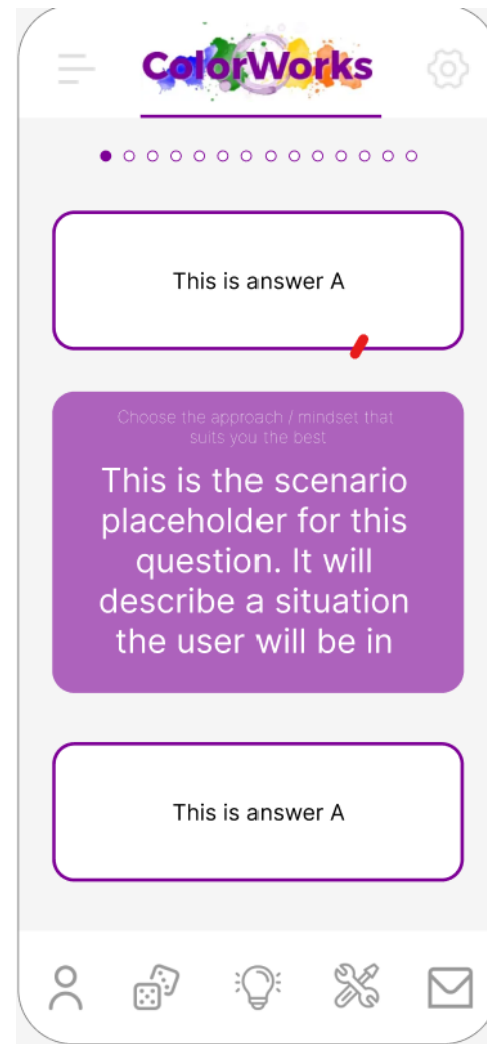
Regression Testing (5.5)

- We ensure that any new additions do not break the old functionality by having existing features in which its functionality is verified
- The development will ensure that new features added will build off the logic of the base code and will branch from there.
- The implemented critical features we need to ensure do not break are:
  - The abilities for the user to login to their profile
  - The ability for the app to recognize the level of subscription the user has
  - The user's ability to make payments. Also, this will be driven by requirements.

Retest All   Regression Test Selection   Prioritization of Test Cases

Acceptance testing (5.6)

Acceptance Testing will be performed during code reviews and during client demo meetings

- ○ Code Reviews: ACs are tested by the developer and code reviewer to make sure functionality behaves as expected
- ○ Client Demo Meetings: Verify that newly implemented functionalities are up to client standards, allowing them to suggest changes if applicable.

GitHub Task: Create a Login and Create Account Page where the user can login or create a new account using their email.

Acceptance Criteria for this Task:
- A user cannot use an email that has already been used to create an account
- A user can login only if their username and password are correct
- A user can navigate to the Create Account Page from the Login page
- A user's password must contain one capital letter, one number, and must be at least 8 characters long
- After creating a new account, the user will be able to login using their credentials
- If the username that a user inputs into the Create Account Page already exists, they will have to choose a new one
- If the username a user inputs into the Login Page does not exist, they will be alerted to go to the Create Account page, as their username credentials were not found in the database.

Security testing (5.7)

CIA triad: Confidentiality, Integrity, Availability
- Payment Information is handled by verified and trusted 3rd party application
- Tier level exclusivity
- Secure user profile swaps (if applicable)

Results (5.8)

- The results of our testing will mean that after all forms of testing we will have a fully functioning application
- We will ensure compliance with the requirements of our application by:
  - consulting all our instructions and layout given by our clients are complete.
  - We will also make sure that all 7 types of testing cover all areas of our application and pass all areas of expertise.

Colorworks App Feedback

Thank you for participating in our survey.

We want to hear your feedback so we can keep improving our content and flow throughout the app development process. Please fill this quick survey and let us know your thoughts (your answers will be anonymous).

Was the app confusing to navigate *

	1	2	3	4	5	
Very easy	◯	◯	◯	◯	◯	Very confusing

Did the sidebar contain all the correct options for successful navigation *

1	2	3	4	5