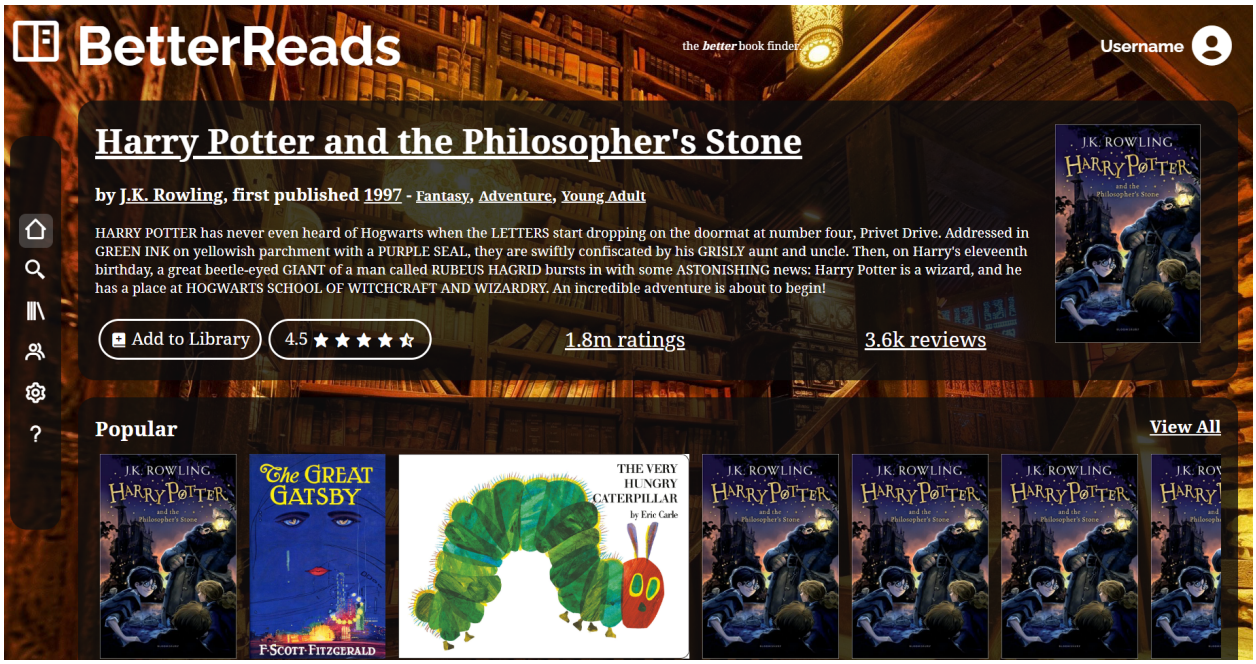

MILESTONE 3

28.11.2022

Group Number – 28

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COMP-3020

Human-Computer Interaction

Patrick Dubois

Technology overview:

For building the BetterReads website, we used Visual Studio Code to write code in HTML – to provide structure to the content, CSS – for the visual layout and how the elements will be displayed on the screen, and Javascript- for communication between the elements. Using these, we were able to focus more on the user interface than the back-end development. Our approach was to make the home page first, to finalize a color theme layout to follow throughout (which is the bright orange background with grey elements and white text to make a good impression). After this, a wireframe was designed to get an idea of how the content will flow. Then the HTML and CSS code was written for all ages, and the focus was to make it visually appealing by focusing on each element's width, margins, and position. Javascript was easy to incorporate once all the elements were laid out.

For the back-end development, we used JSON to store data in a specific format (mainly used for keeping records of books in our system). The code was stored, tracked, and merged via GitHub. It also helped us collaborate on our project. We also didn't use any libraries for our web development.

Design deviations and evolutions:

Our designs did change significantly from our paper prototype. The first major change brought up was to create a "login" and "create an account" page. When prototyping, we didn't choose a color theme or decided to have a picture in the background. We also removed the questions page from the navigation bar, because our original plan was to provide tutorials but there is an ideal choice because it does not enhance memorability as the user may search every time for their preferred results and won't interact with other elements present. They may start to lose interest sooner.

After other groups' feedback on the sign-in and home page, we made the changes relatively by having different pages to sign in and create an account, aligning the titles of books with book covers, and having a smaller navbar than letting it stretch on the left side of the pages. We also found it difficult to implement the arrows on the home page to scroll through rows of books in a category and it was also difficult to make a hover box over the book for the user to view the fine details of the books. We also removed the discussion option from book details because it confuses the user between the use of review and discussion forum and moreover, the separate page for discussions with friends is easy to find.

Usability “sales pitch”

BetterReads is a website app that specializes in offering a book catalog where users can conveniently monitor their reading progress, look for related books, and connect with like-minded readers. Its layout was inspired by a combination of Netflix and Goodreads. We used the waterfall methodology for organizing the project and prototyped it beforehand to ease the development of this dynamic application. In the end-product, the usability guidelines we concentrated on are:

Consistency: Inconsistencies can make the product feel broken, disjointed or confusing, and can distract the user from completing their task. The design utilizes a grid to create consistency in layout, padding, margins, headers, and fonts between pages of a website. A consistent color scheme is also followed throughout.

Matching: We used matching to things in the real world in our nav bar for our icons. A beginner with our system can quickly tell that  an icon represents home as a house usually represents a home in the real world. The use of  icon to represent the library affords how books are arranged on the shelf in a real-world library.

Affordances: We also used affordances in our nav bar icons. We used images similar to what is used in other apps to represent some of our nav bar icons. A gear icon is used to represent settings in most apps so we used  to represent settings in our nav bar. A magnifying glass is also usually used to represent the search icon in most apps so we used  to represent our search function.

Minimize memory load: Our application uses a User Interface to Netflix, a commonly used app. Users who are already familiar with how to use the Netflix app do not require a lot of memory load in learning how to use the app if they have already learned how to use Netflix. Our use of affordances also helps reduce memory load as users do not need to learn what each icon on our nav bar represents as it is easy to infer from the icons.

Provide help: Our app has a help function in the nav bar which makes it easy for users to get help whenever they get stuck on how to use the website. Also, our nav bar stays in place on every page in our website, thus users can access help from wherever they are on the application.

Diagnose/Recover from errors: Our application is designed to help prevent mode errors by highlighting what mode the user is currently on.  vs.  gives **feedback** to the user that they are on the home page because of the gray highlight around the home icon.

Control and freedom: Having our navbar on every page helps users escape errors as they can immediately click the home icon to escape whatever page they are stuck on. This way, the user does not get trapped somewhere on the app and cannot find their way back to where they started.

Mapping: In each row of books, there are left and right arrows to help the users scroll through the books.

This is very intuitive because, at the right end of the row, we have a right button that helps the user move right on the list of books. The degree of integration for scrolling through the books is ½ which means that it requires less effort on the part of the users. The degree of integration is ½ because the degree of freedom in scrolling left or right is one while the degree of freedom of a mouse is 2.

Simplicity: Our design employs the principle of simplicity by putting only basic information and rows on the home page and having all the other functions of the app in different categories on the nav bar.

Clean Design: Our design has a clean, appealing design. A quality design is attractive and easy to read with intuitive navigation. Most importantly, a clean design helps viewers focus on the value of your brand and content instead of distracting graphics and large amounts of text.

Some specific features we focused on:

Search: The search screen with a search field for users to enter keywords is present. It also displays a list of books based on the user's preferences (books they have read, liked, reviewed, and discussed). Once the user starts typing into the search bar, the rest of the screen changes to show results.

Friends: The new messages section provides convenience of seeing the message instantly without making the user click the messages or bell icon for notifications,which most of the applications offer. It also provides options to have a discussion with a friend, and the friends list is on the right for quick access and to see the recent or latest friends while doing the discussion.

Recommendations: The top of the home page, which appears each time the app is accessed, features a description and image of the top trending book. The list of best-selling books is then presented, and finally, a list of books is organized according to the user's preferred genres.

Book Details: The title, summary, cover image, and rating of the book are all provided. Users can click the number of reviews and number of ratings to explore other users' reviews and ratings. A section to add rating and review is also added.

Library: The user's overall access to the books they have decided to read later, the books they are reading now, and the books they have finished are provided by my library. A new screen showing the book's title, cover, description, and current rating appears when any of the books is clicked. By keeping track of the user's interactions with the books, my library keeps them informed and organized.

Settings: The user's account information is displayed on the settings screen in an editable box with the proper titles. A user can edit any information by simply typing it in the box or, when appropriate, by using the arrow keys to select a different choice, such as a different font size, background color, or text color, before clicking the Update button. The settings function resembles a straightforward pre-filled form that the user can alter.

Concluding, with the overall easy to use design, which doesn't require any special knowledge prior to use, BetterReads seeks to fulfill users' needs to keep track of their reading as well as to locate an excellent book that piques their interest.