

CASE STUDY

KING COUNTY LIBRARY SYSTEM
MOBILE APP PROPOSAL

THE TEAM

TEAM - NOT

BEHIND THE NAME

The story behind the team name “not” was that we are not just only a team, but more than that.

Partner, classmate, and friends.

JESSICA SANTOSA

- RESEARCH
- PERSONA
- UI DESIGN
- PAPER PROTOTYPE
- PROTOTYPING
- USABILITY TESTING
- CASE STUDY DOCUMENTATION
- UX DESIGN

TRU DINH

- RESEARCH
- COMPETITOR ANALYSIS
- PERSONA
- UI DESIGN
- STYLE GUIDE
- USABILITY TESTING
- CASE STUDY DOCUMENTATION
- PROTOTYPING

YOUNGIL LEE

- RESEARCH
- CONTENT STRATEGY
- COMPETITOR ANALYSIS
- PERSONA
- UI DESIGN
- USER FLOW
- CASE STUDY DOCUMENTATION
- USER SCENARIO

CREATIVE BRIEF

KING COUNTY LIBRARY SYSTEM MOBILE APP

CLIENT

King County Public Library

King County Library System is the public library system for the King County area. They have been serving the residents of King County, Washington since 1942. Their headquarter is located in Issaquah, Washington, and they are currently the busiest library system in the United State. The King County Library System consists of 48 libraries, circulating 22.4 millions items, a traveling library center, a mobile TechLab, and the ABC Express children's library van.

THE PROBLEM

King County Library System has a beautifully built website with tons of contents and features. Sadly, the same couldn't be said for their mobile approach. Their mobile version website is at most usable with a simple layout design. On the other hand, their mobile app is very dull, unappealing, out-dated design, buggy, and features lacking. Since about 60% of the world Internet traffics come from mobile devices, being one of the busiest library system in the united state, we feel that it is very important for them to have a much better mobile presence than what they currently have.

SOLUTION PROPOSAL

After analyzing their website and comparing it to their app, we spotted many inconsistencies happening with their content as well as their logo. Their website also has a much more modern feel compared to their mobile app. We are planning to improve their brand consistency as well as aesthetics by redesigning King County's Library System's mobile application. The Application would be readily accessible for free on the Apple Store as well as Google Play.

TARGET AUDIENCE

Students

Teachers & professors

Family friendly

CONTENT STRATEGY

THE APPLICATION WILL FOCUS ON

- User Experience. Simple and clean design that would be easily understandable
- Professional tone of content
- Digital reading platform (ebook)
- Functionality
- Scanning bar-codes to easily access ISBN books
- Individual KCLS account for users to keep track of borrowed books
- Database only accessible if phone is online
- Device location services available for geographic searching

CONTENTS INCLUSION

DIGITAL READING PLATFORM SERVICE

ebooks and audio-books purchase and rental

BOOK THUMBNAILS

new released book or bestseller book with thumbnails

LOG IN (ACCOUNT)

profile, borrowed book, and funds

SEARCH

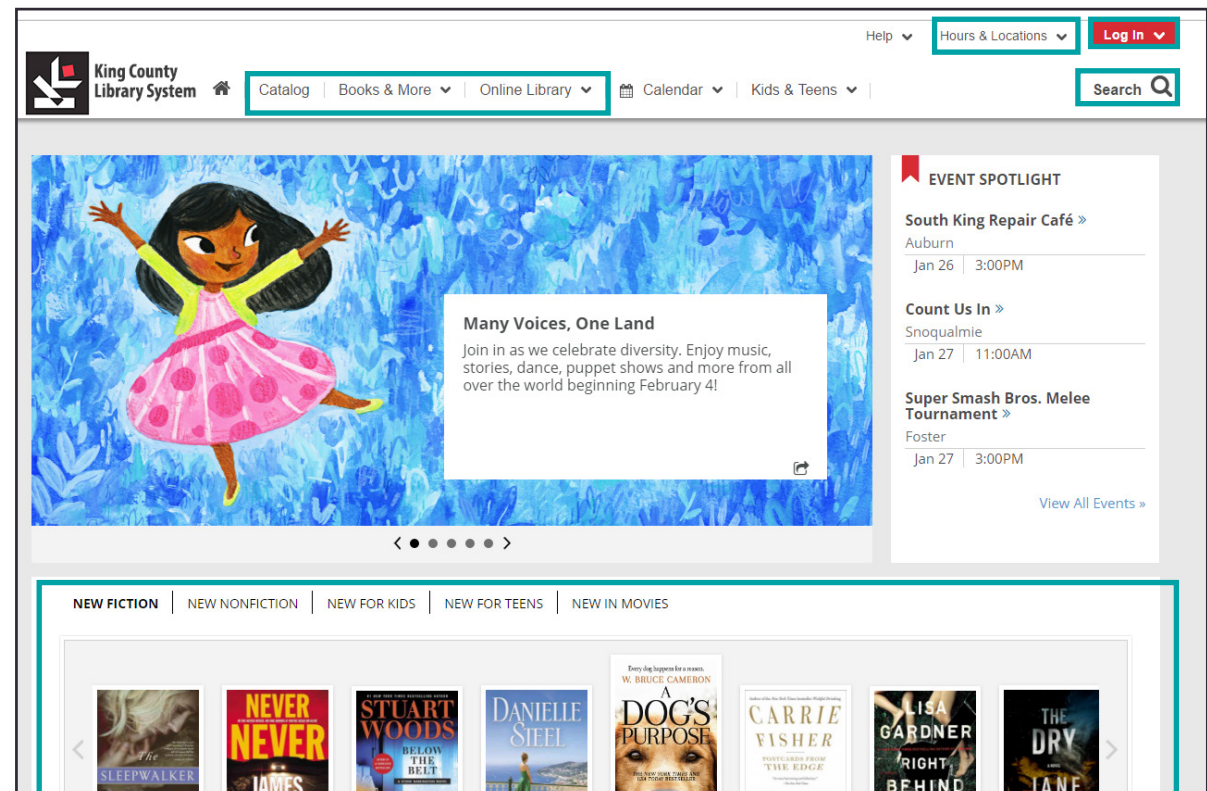
search book catalogs and resources from database

BOOK SCANNING (ISBN SCANNING)

feature to enable users to look for all available formats of the book

HOURS & LOCATION

connecting with navigation service



CONTENT STRATEGY

CONTENTS EXCLUSION

BIG IMAGES

no space for it and lose of data

EVENT SPOTLIGHT

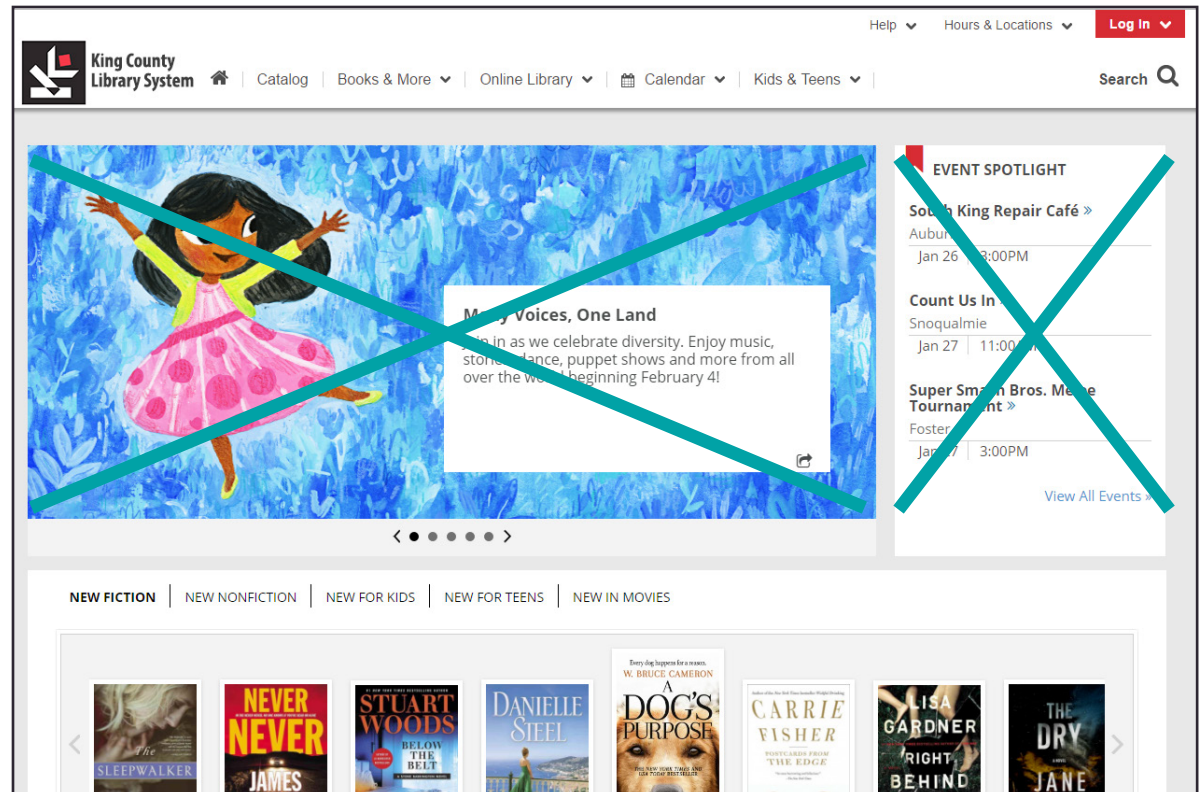
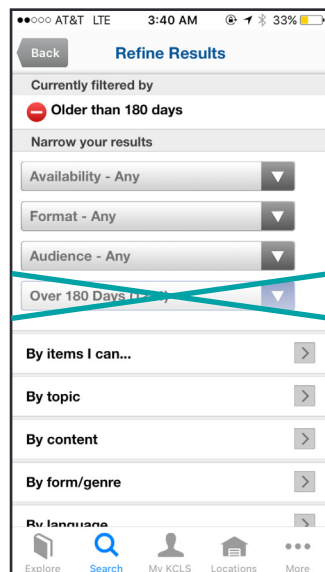
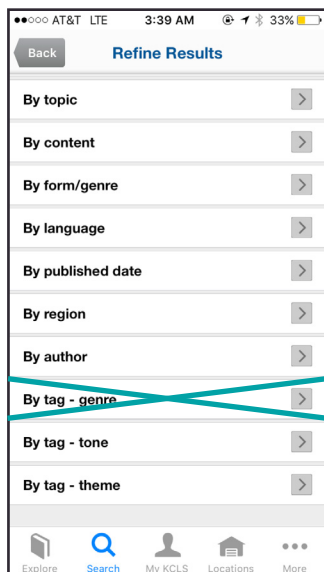
already in desktop and mobile website

BY TAG GENRE

exactly the same contents as by form/genre

ACQUIRED DROP-DOWN MENU

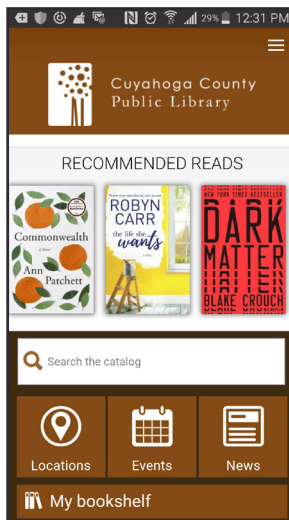
this feature is not frequently used and unnecessary



COMPETITIVE ANALYSIS

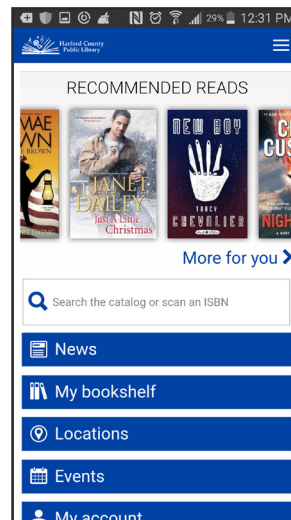
Through the analysis, we have seen some standard features and interactions that most library mobile apps should have. Most of library mobile app include book cover flows of recommended book and bestseller on the first page. They have hamburger menu containing “Catalog”, “My Account”, “Location”, and “Search” menu. They also put a search bar on the first page to minimize the user effort to search a search function. All competitors support the scanning service for ISBN, book bar-code, and library card bar-code by phone’s camera.

CUYAHOGA COUNTY PUBLIC LIBRARY



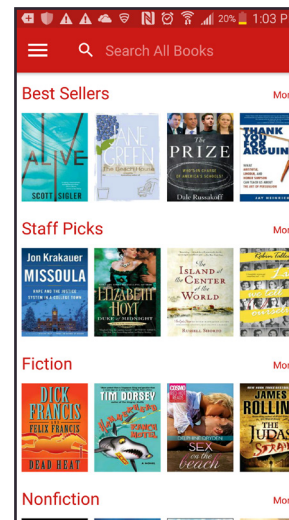
- HAMBURGER MENU
- BOOK COVER FLOW
- SEARCH BAR
- SOCIAL MEDIA
- SCANNING SERVICE

HARFORD COUNTY PUBLIC LIBRARY



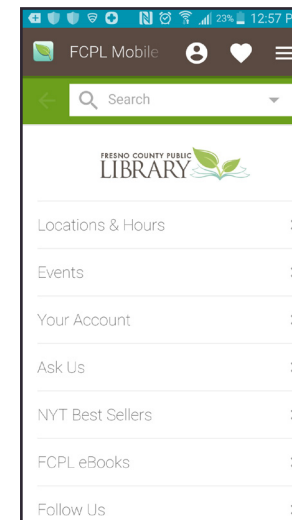
- HAMBURGER MENU
- BOOK COVER FLOW
- SEARCH BAR
- SOCIAL MEDIA
- SCANNING SERVICE

NEW YORK PUBLIC LIBRARY



- HAMBURGER MENU
- BOOK COVER FLOW
- SEARCH BAR
- SOCIAL MEDIA
- SCANNING SERVICE

FRESNO COUNTY PUBLIC LIBRARY

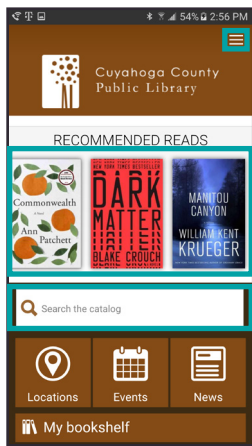


- HAMBURGER MENU
- BESTSELLER TAB
- SEARCH BAR
- SOCIAL MEDIA
- SCANNING SERVICE

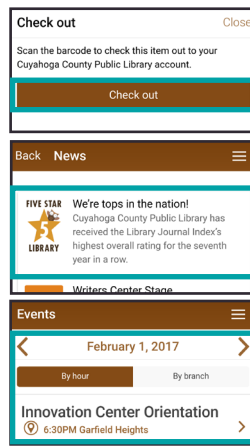
COMPETITIVE ANALYSIS

CUYAHOGA COUNTY PUBLIC LIBRARY

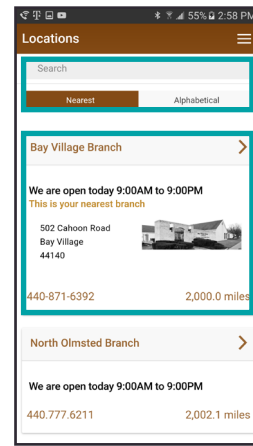
Compared to King Country's Library app, Cuyahoga County Public Library has a much more clear navigational system and despite of having much button at their homepage, they present useful contents that could not be found at King County's app such as an events page and a news page.



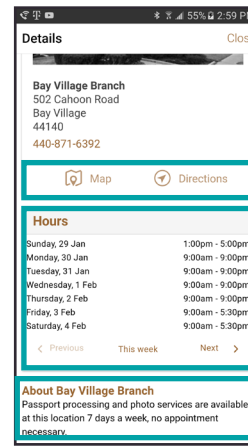
TILES DESIGN
RECOMMENDED SECTION
HAMBURGER MENU
QUICK SEARCH BOX



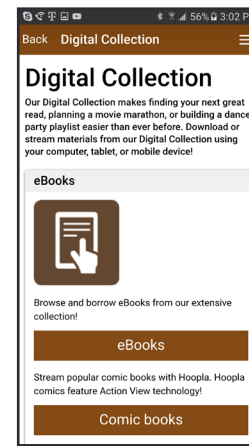
CHECK OUT WITH PHONE
NEWS
EVENTS



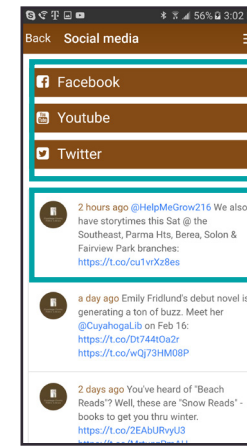
SEARCH LOCATION
SORT SYSTEM
PICTURE OF LOCATION
DISTANCE
ADDRESS
PHONE NUMBER
HOURS



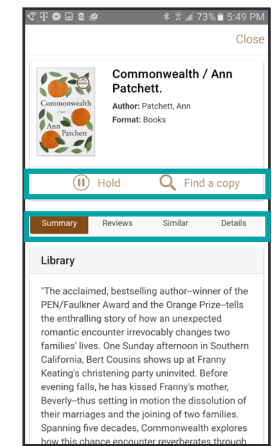
LOCATION DETAIL
HOURS
ABOUT
MAP
DIRECTION
ADDRESS



DIGITAL CONTENT
EBOOKS
VIDEO
AUDIOBOOK
EMAGAZINES
MUSIC
KIDS CONTENT



SOCIAL MEDIA
FACEBOOK
YOUTUBE
TWITTER LIVE FEED

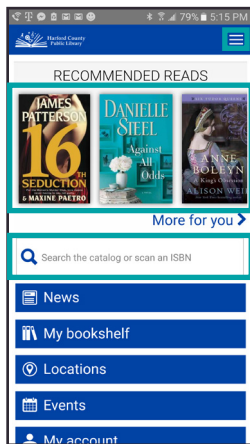


HOLD
FIND COPY
SUMMARY
REVIEW
SIMILAR
DETAILS

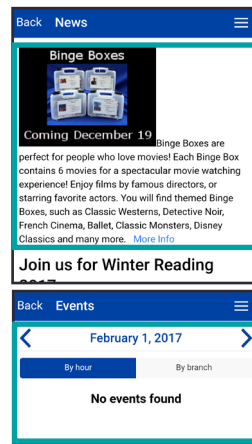
COMPETITIVE ANALYSIS

HARFORD COUNTY PUBLIC LIBRARY

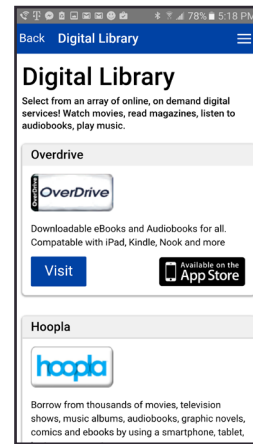
Harford County Public Library has a similar navigational system and hierarchy as the Cuyahoga County Public Library application. However, they have a blue color scheme that emphasizes intellect and has a more peaceful feel to it. We could also see some of their posts on their social media page rather than having to open another app to view their posts. Another thing that we can find at their app is that they have a digital library page where they refer us to other apps or site that has online digital book services.



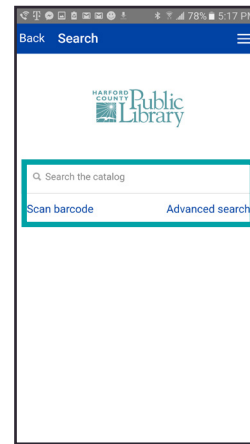
TILES DESIGN
RECOMMENDED
SECTION
HAMBURGER MENU
QUICK SEARCH BOX



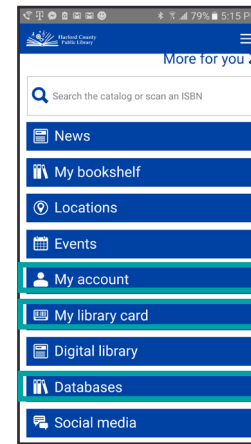
NEWS
EVENTS



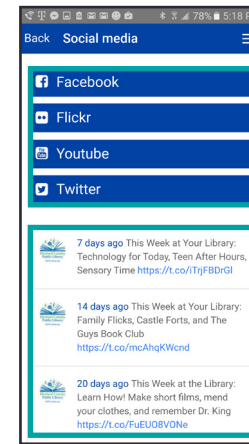
DIGITAL CONTENT
EBOOKS
VIDEO
AUDIOBOOK
EMAGAZINES
MUSIC
KIDS CONTENT



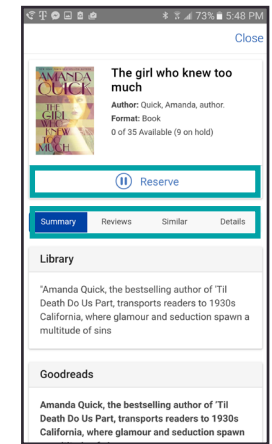
SEARCH
SCAN
ADVANCE SEARCH



MY ACCOUNTS
MY LIBRARY CARD
DATABASES



SOCIAL MEDIA
FACEBOOK
YOUTUBE
FLICKR
TWITTER LIVE FEED

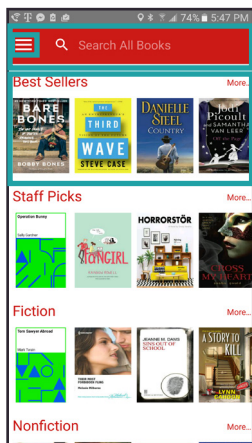


RESERVE
SUMMARY
REVIEW
SIMILAR
DETAILS

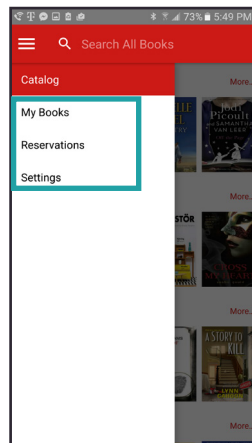
COMPETITIVE ANALYSIS

NEW YORK PUBLIC LIBRARY

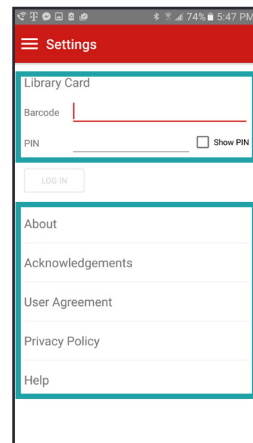
The New York Public Library app has the most different look than the other library apps. When you open the app, you will be directed to the catalog page which shows categories of books in a card-style interface design. They also have a good brand consistency and we feel that we should keep our app design clean and simple just like New York Public Library's interface. However, we feel that they lack in content and they definitely should adopt a bar-code scanning system to their app.



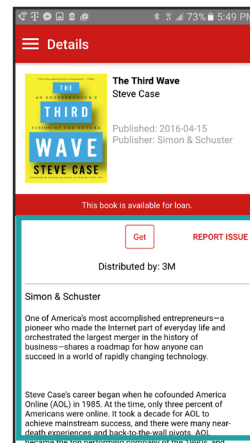
TILES DESIGN
RECOMMENDED
SECTION
HAMBURGER MENU
QUICK SEARCH BOX
CATEGORY SHOWCASE



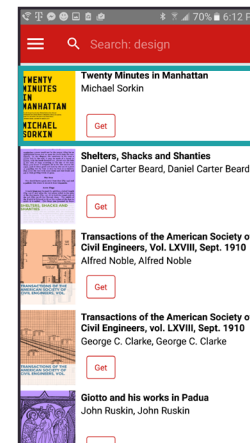
MY BOOK
SETTING
RESERVATION



SETTING
ABOUT
USER AGREEMENT
POLICY
LIBRARY CARD
HELP



RESERVE
SUMMARY
REPORT
DETAILS

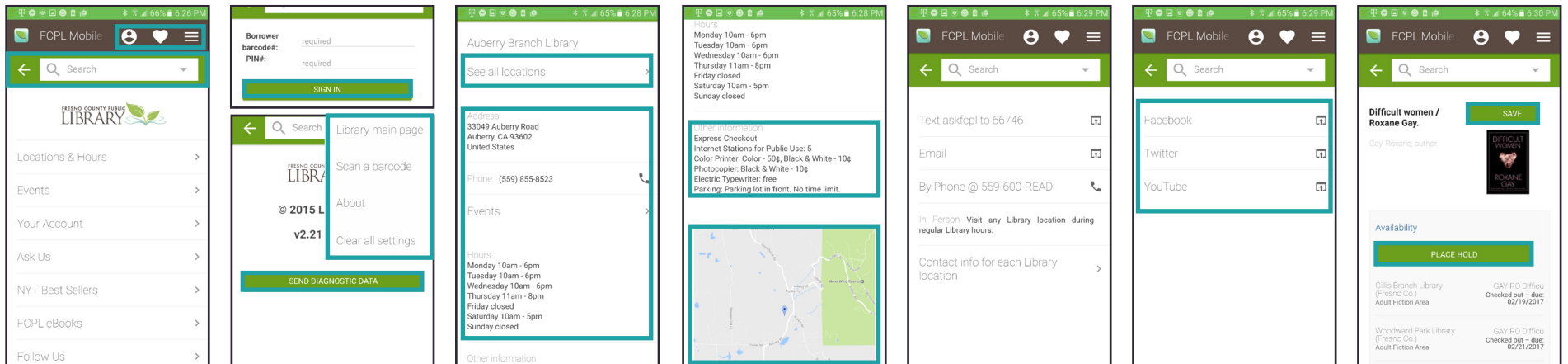


TILE SEARCH RESULT
GET

COMPETITIVE ANALYSIS

FRESNO COUNTY PUBLIC LIBRARY

Fresno County Public Library had successfully chose a good color scheme for its app. They develop a brand identity that uses leaves and a green color that signifies growth and quality. However we spot an inconsistency when comparing their android app to their IOS app. The design is much more modern at their Android app as they use flat colors and design while Freshno County Public Library's IOS app still uses gradient colors.



TILES DESIGN
HAMBURGER MENU
QUICK SEARCH BOX
QUICK SAVE

ACCOUNTS
SEND DATA
SCAN
ABOUT

SEARCH LOCATION
ADDRESS
PHONE NUMBER
HOURS
OTHER INFORMATION
EVENTS

OTHER INFORMATION
MAP

CONTACT PAGE

SOCIAL MEDIA
FACEBOOK
YOUTUBE

HOLD
SUMMARY
SIMILAR
DETAILS

COMPETITIVE ANALYSIS

USER NEEDS

- Resource search
- Ability to check all available platforms of a specific book
- Capability to manage book rental and profile
- Share or get information about books via social media
- Navigation to search a nearest library by GPS

ADOPTING

- Book code scanning service
- Design consistency with the logo
- Book feedback feature in book description section

UNNECESSARY

- Unnecessary information detracting from key features
- Low resolution imagery
- Easy to understand UI

HEURISTIC ASSESSMENT

VISIBILITY OF SYSTEM STATUS

- Pop-up message on current status.
- Spinning circle loading animation, signifying you that the connect is loading.
- On android, for the community activity section, there is no loading status to let the user know if there is any content that is being loaded, it just a blank section.

MATCH BETWEEN SYSTEM AND THE REAL WORLD

- On IOS, a house icon is use for location, uncommon and unusual.
- On the book profile page, the three icons on the top of the page is very unusual, confusing, and hard to understand.
- On Android, login error, "you have not entered your credentials." It is uncommon to use "credentials" as login information.

USER CONTROL AND FREEDOM

- Universal back button
- There is no home button on android, logo don't take you back to home
- Refining search result

CONSISTENCY AND STANDARDS

- Design style is inconsistence
- Universal option icons
- Inconsistence logo from website
- Consistence color scheme
- Inconsistence covers size
- Inconsistence UI between IOS and Android

ERROR PREVENTION

- Confirmation message
- Login pop-up when u try to place book on hold

RECOGNITION RATHER THAN RECALL

- Setting to remember your login
- When checking for book availability, missing book title, reminding you what book you are trying to check for
- No option to save your local library

FLEXIBILITY AND EFFICIENCY OF USE

- Minimal shortcut feature for experienced user
- There is only one way to do each function
- Add rating and reviews
- Bookmarking title
- Setting prefer location

AESTHETIC AND MINIMALIST DESIGN

- The application design is very minimal, too bare.

HELP USERS RECOGNIZE, DIAGNOSE, AND RECOVER FROM ERRORS

- Error message

HELP AND DOCUMENTATION

- “Help” page
- Send feedback“ask” link, to contact the library for more help

PERSONA



AGE: 32 years old
FAMILY: Married, 1 son
LOCATION: Auburn, WA
WORK: Interior designer
SALARY: \$68,597
TECHNICAL SKILL: Advanced
LIBRARY VISITATION: Few times a week

SELENA HEART SENIOR INTERIOR DESIGNER

Selena is an interior designer and a mom who is so passionate about 6 years old son's education. She wants her kid to read as many books as possible, so her family often visit Auburn Library which is under King County Library System to rent books.



AGE: 20 years old
FAMILY: The only daughter
LOCATION: Tacoma, WA
WORK: Part-time Starbucks barista
SALARY: \$17,655
TECHNICAL SKILL: Advanced
LIBRARY VISITATION: Five times a week

ELEANOR BOYLE ARCHITECTURE STUDENT

Eleanor is a freshman at UW Tacoma and she had finally decided on taking Architecture as her major. She is currently taking basic level architecture classes and is trying to familiarize herself with the history of architecture. In order to do this, she would need to do a lot of reading and her class also requires her to do many research papers.

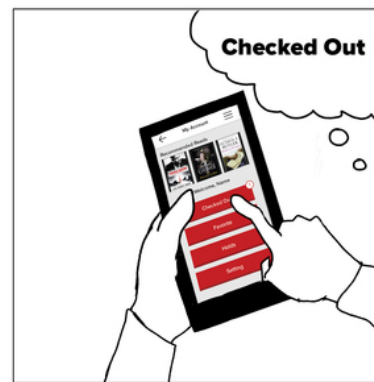


AGE: 42 years old
FAMILY: Married, no kids
LOCATION: Bellevue, WA
WORK: Interlake High School
SALARY: \$50,565
TECHNICAL SKILL: Proficient
LIBRARY VISITATION: Once a week

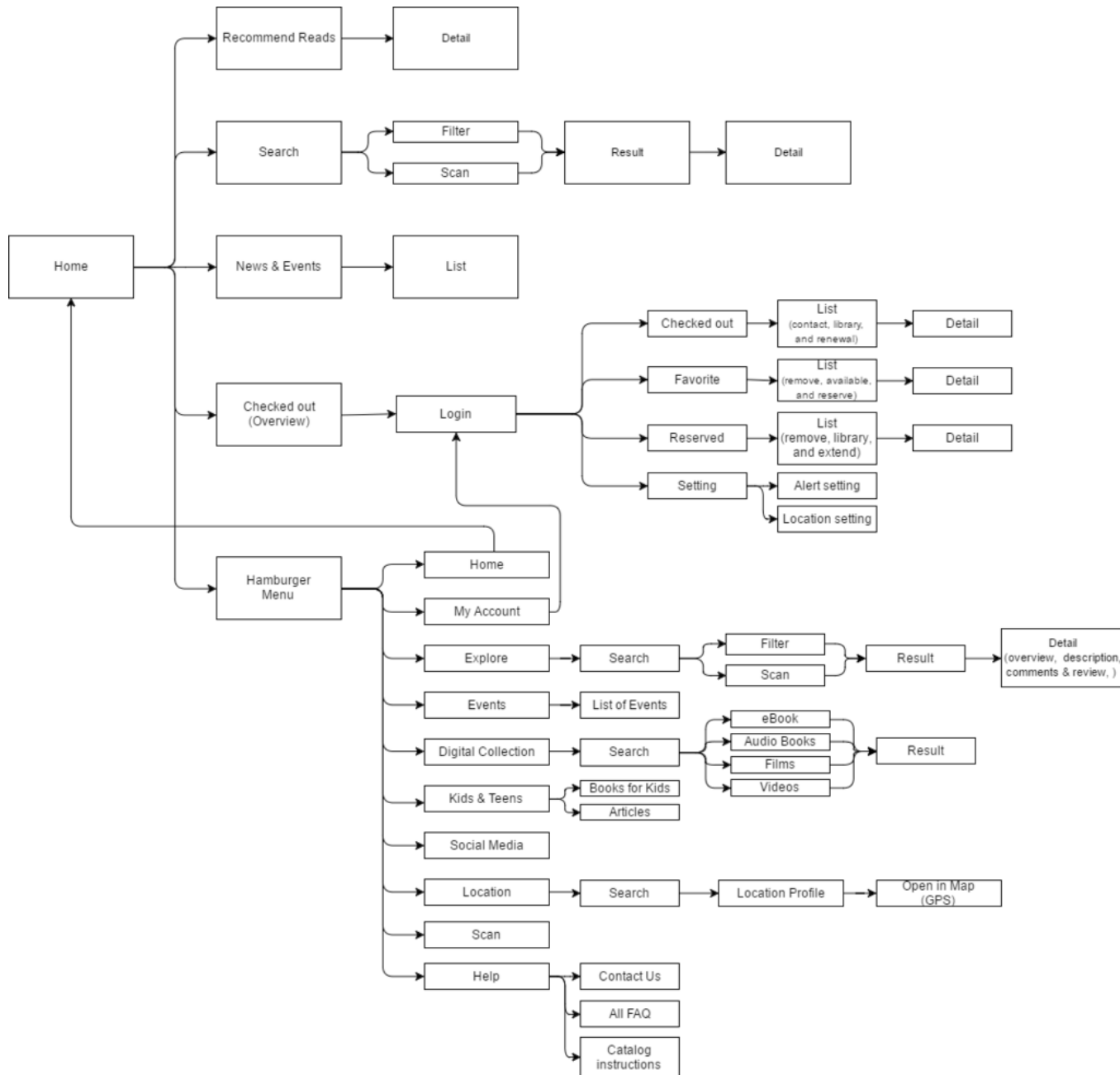
SCOTT BELL HIGH-SCHOOL SCIENCE TEACHER

Scott is a middle aged male, teaching 9th grade chemistry at Interlake High school. He usually visit the library once a week for his leisure reads. Scott is currently researching on organic chemistry to plan a class lecture for his students. Scott is using the King county public library mobile application to find books that are currently available at his local library.

USER SCENARIO



USER FLOW



USABILITY TESTING

PAPER PROTOTYPE

TASKS

Task 1

Search for a book title

Check for availability

Place the book under reservation

Task 2

Search for a nearby King County Public Library

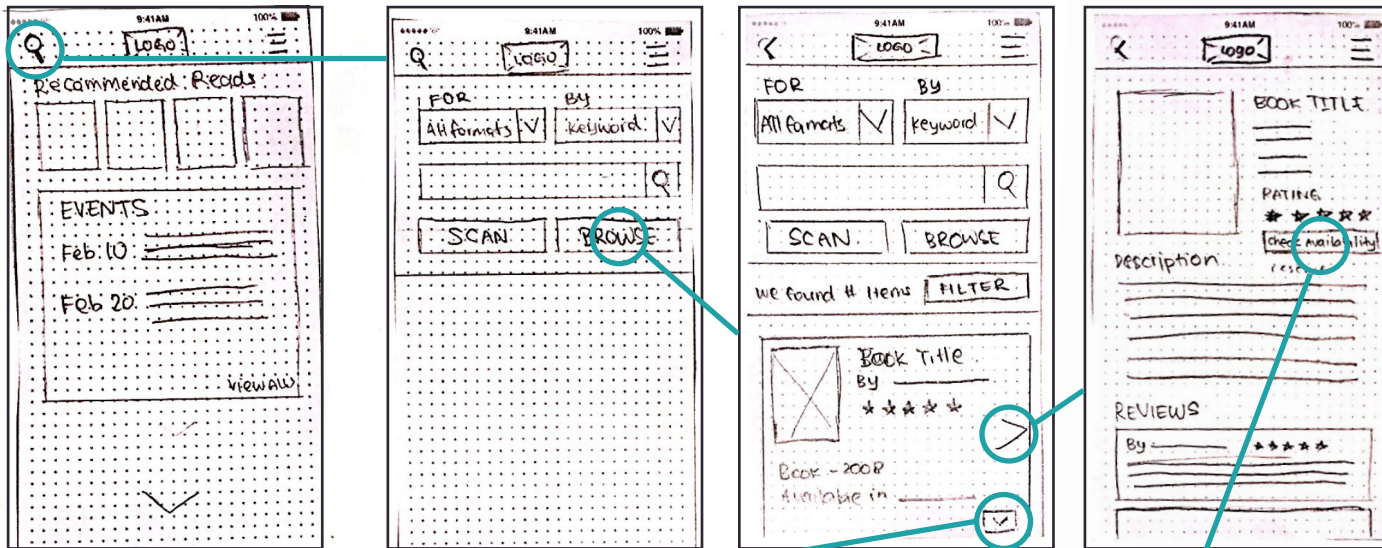
Find the library operating hours

COMMENTS, PROBLEMS, AND CONFUSIONS

- User thoughts the search icon to be confusing.
- User were confused on the pop up screen with “reserve” and “save” as the options. User were confused on what function does “reserve” and “save” to have, as to they are too similar in wordings.
- User didn't know that the option icons on the book title tile were click-able.
- User believed that a quick access to emailing the library features should be added.
- The result page for book search were too confusing, causing user a long of period of time to comprehend the layout.

PAPER PROTOTYPE

TASK 1

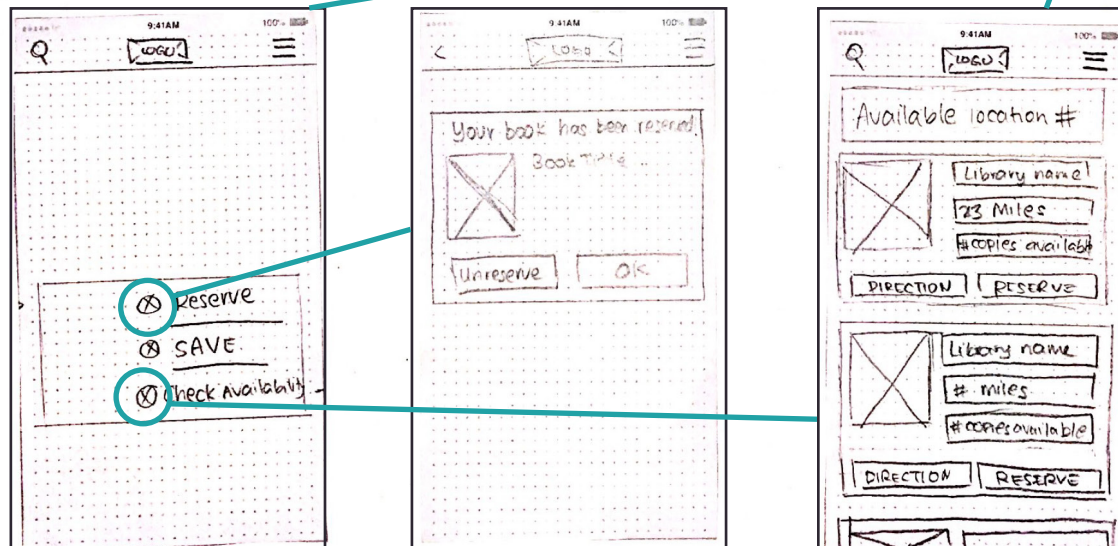


LANDING PAGE

SEARCH PAGE

SEARCH RESULTS

BOOK DESCRIPTION



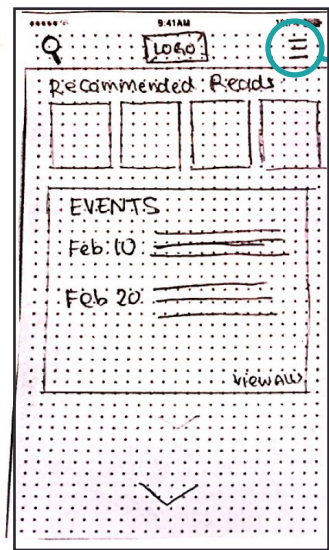
BOOK OPTIONS

CONFIRMATION MESSAGE

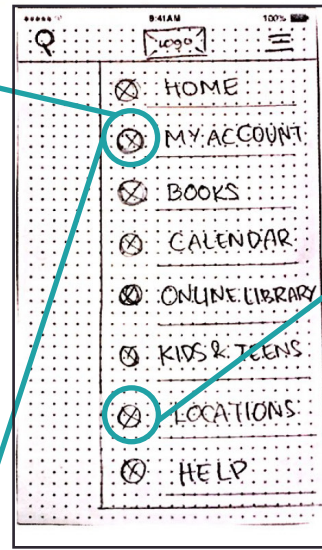
BOOK LOCATIONS

PAPER PROTOTYPE

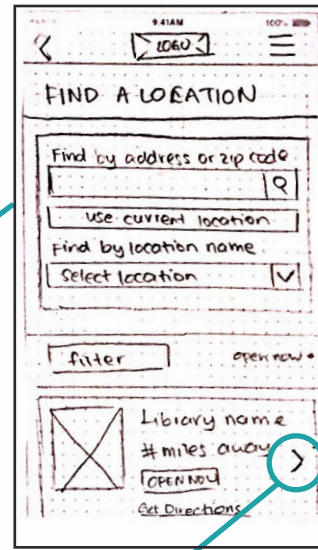
TASK 2



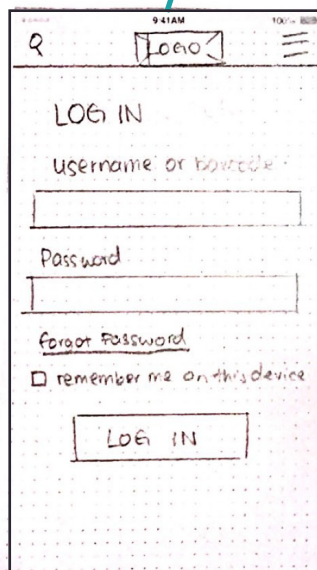
LANDING PAGE



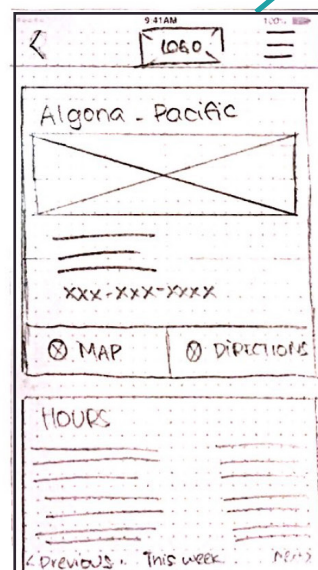
MENU BAR (HAMBURGER)



LOCATION SEARCH BAR

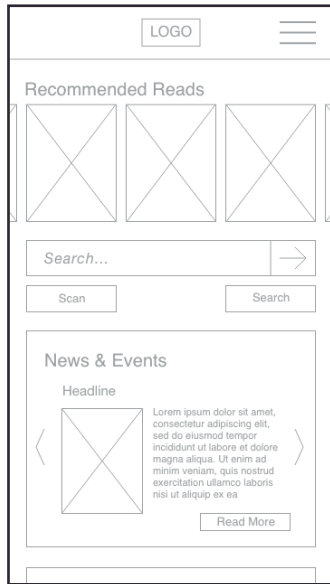


LOG IN PAGE

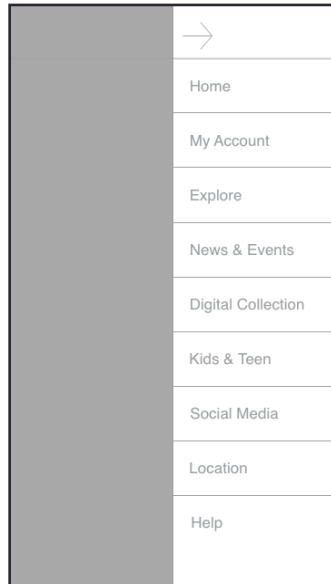


LOCATIONS INFO

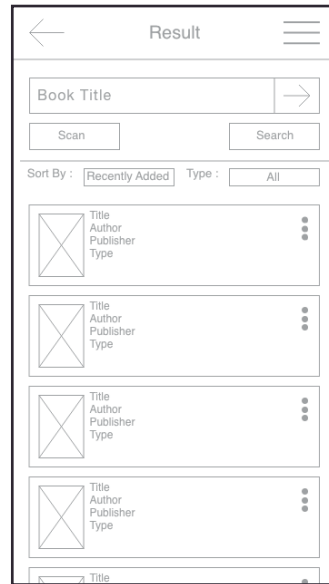
WIREFRAME PROTOTYPE



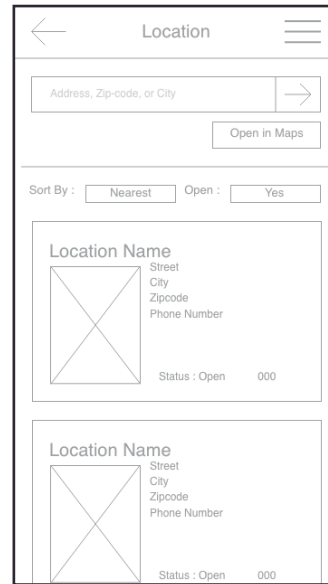
HOME



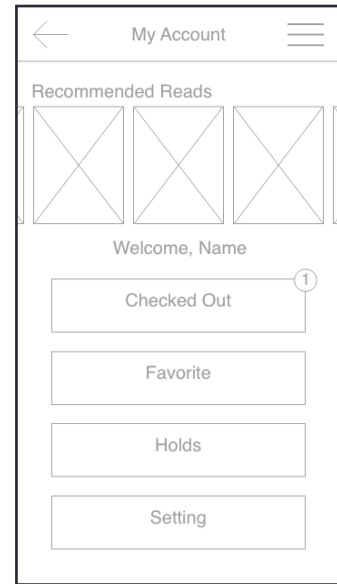
MENU



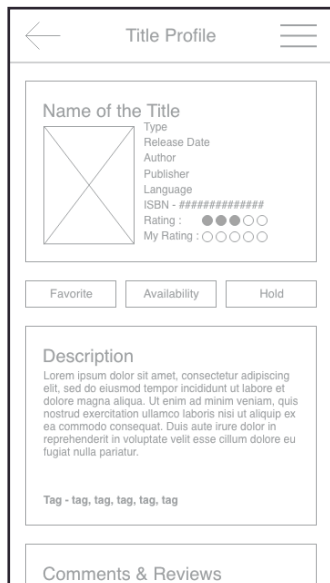
SEARCH RESULTS



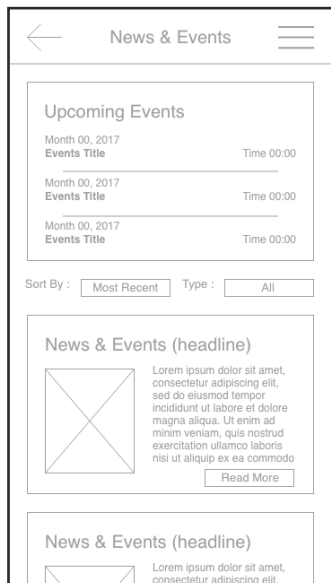
LOCATION



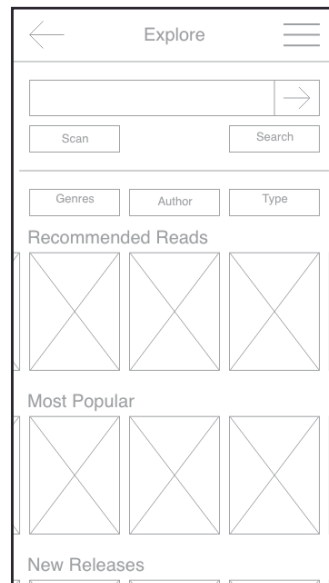
MY ACCOUNT



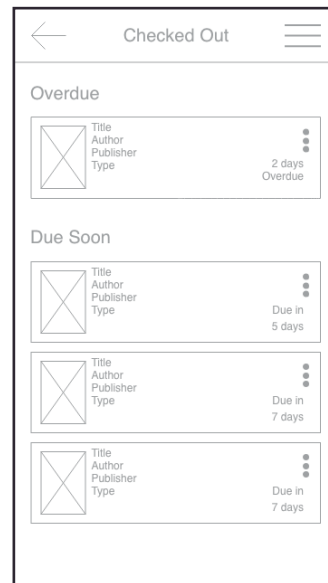
BOOK PROFILE



NEWS & EVENTS



EXPLORE



CHECKED OUT

LO-FI WIRE-FRAME PROTOTYPE:

<https://goo.gl/ZAHR4h>

STYLE GUIDE

COLORS



R: 221 G: 33 B: 39

R: 33 G: 33 B: 33

R: 2 G: 114 B: 158

R: 229 G: 229 B: 229

R: 255 G: 255 B: 255

TYPOGRAPHY

Proxima Nova Medium (Headline / Buttons) 20pt

Proxima Nova Medium (Heading 1 H1) 20pt

Proxima Nova Medium (Heading 2 H2) 16pt

Proxima Nova Medium (Heading 3 H3) 14pt

Proxima Nova Light (body Copy) 12pt 16Leading

BUTTON



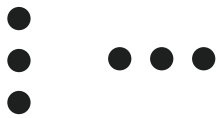
GENERAL BUTTON



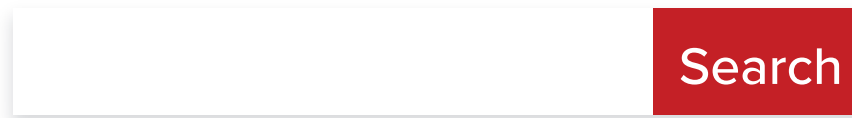
FILTER BUTTON



BACK BUTTON | HAMBURGER MENU

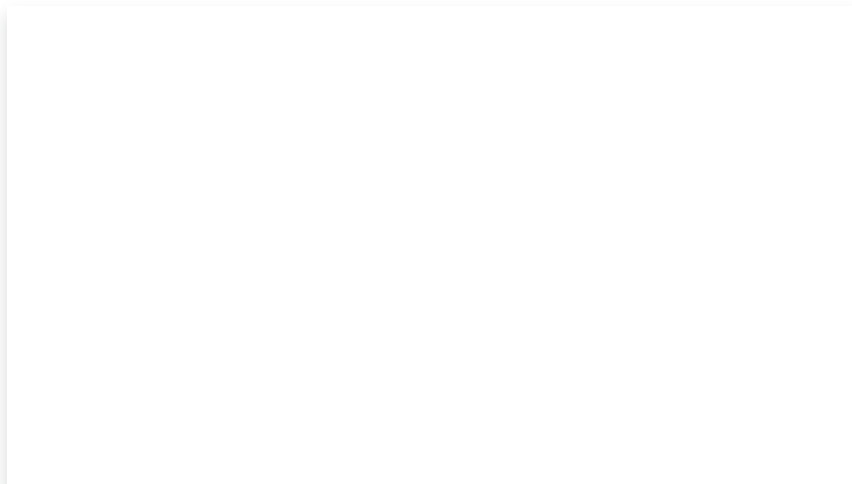


MENU BUTTON



SEARCH BOX

CONTAINER



COLOR: WHITE (R: 255 G:255 B:255)

SHADOW:

MULTIPLY,

OPACITY (16),

X-OFFSET (0),

Y-OFFSET (4),

BLUR (4),

COLOR OFF BLACK (R: 33 G:33 B:33)

TESTING SCRIPT

WELCOME AND PURPOSE

Hello, My name is _____, Thank you for taking your time to participate in the testing of the new King County Library System mobile application. This mobile app is still in it prototype form and it still carry lots of flaws. I need your help in discovering those flaws in today testing session.

The King County Library System mobile application is meant to be a companion mobile app to your library experience. The KCLS mobile app will assists you in locating nearby library branch, keep track of your checked-out books, find information on books and its availability, and discover online contents such as ebook, audio-book, and videos.

This testing session isn't meant to test you as a user but in fact to test the functionality of the app. If you feel like something isn't right, don't worry, it isn't you, it's the app. For this testing session, you will be given three tasks to complete. Please complete the tasks at your own pace and as you perform the tasks, it would be a great help if you could talk us through your thoughts process while performing the tasks. Again, thank you for your time. Your results will be a great help for us when we finalize this apps for the mass.

TASK ONE

Your first task is, using the king County Library System app to locate a nearby King County Public Branch and View the location on the map.

You have completed task one, were there any difficulties, concerns, questions, comments, or suggestions you may have while performing that task.

TASK TWO

Your second task is using the app, figure out which books you have checked out that is currently overdue.

You have completed task two, were there any difficulties, concerns, questions, comments, or suggestions you may have while performing that task.

TASK THREE

Your third and final task is using the app, find out the upcoming events for kids.

You have completed task one, were there any difficulties, concerns, questions, comments, or suggestions you may have while performing that task.

CONCLUSION

You have completed the test session of the King County Mobile App. Again, thank you for your time, your result will be a great help for us to improve on the app for the final version of it. Do you have any final comments and suggestion you want leave with us? Thank you for your time than, and hope you have a nice day.

USABILITY TESTING

STUDY GOALS

- User friendly testing
- Ensure that people can access their desired page easily
- Mapping user paths
- Ensure users are familiar with the user interface of the app

PARTICIPANT SCREENING CRITERIA

- Students (15 - 25 years)
- Parents (25 - 50 years)
- Teachers (25 - 50 years)
- Have access to using smart phones
- Familiar with the idea of using a mobile app
- Often visit a library/ borrow books
- Read books frequently
- Does research frequently

TASKS:

- Located a nearby King County Public Library Branch and view the location on the map.
- Figure out which book are currently being overdue.
- Find upcoming events for kids

TEST RESULT

USER 1

(observation) Couldn't find the map button on task 1

(comment) Soo many click

(suggestion) Alert feature

(comment) Don't separate events from kids

(comment) Make it simple, less tap

(suggestion) Combine Events and kids & Teen events

USER 2

(comment) Library location look like a book profile

(suggestion) Move "location" to top 3 on the menu underneath "explore"

(suggestion) Universal search box, search location

(comment) Events text look too small, didn't know it was click-able

USER 3

(comment) Make sense overall

(comment) Strange to have two separate event page

(suggestion) Ability to favorite an event

(comment) Overall nice

USER 4

(comment) Text too small on checked-out page

(suggestion) Change green to orange for checked-out page, green feel too safe.

(observation) Last task seems confusing to tester

(comment) Two event page is confusing, text too small

(comment) Button too small

(comment) Overall look clean and well organized

(comment) No kids event indication at event page.

USER 5

(comment) Like the small (!) for notification

(comment) Seem clear and look clean

(comment) Green is too neon bright

(comment) Look simple, everything is easy and fast

(suggestion) Hamburger menu tab, overlay

(comment) Text too small

(suggestion) Symbol for overdue book

USER 6

(observation) She thought the search box on the home page could locate library

(comment) Seems straight forward

(comment) Second task is very clear since its on the homepage

COMMON PROBLEMS, COMMENTS, AND SUGGESTIONS

Separate events pages for kids/teen and main events confuses user

Text are too small on certain pages, inconsistency

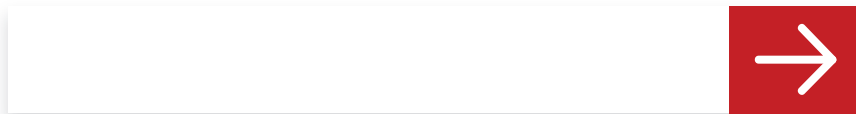
Green color is too neon bright

Button are too small on certain page

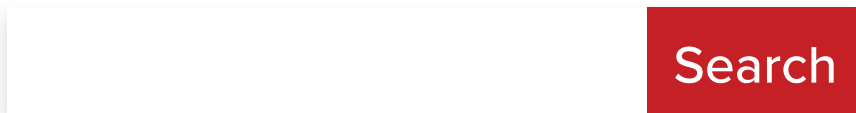
Universal search box

CHANGES

- Unify text size
- Unify button size
- Unify overall Elements, established a more strict design guide
- Remove green color
- Combine 2 events pages into one
- New Search box

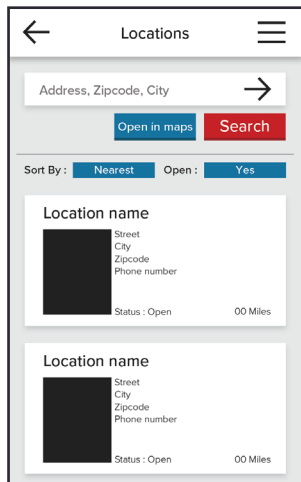


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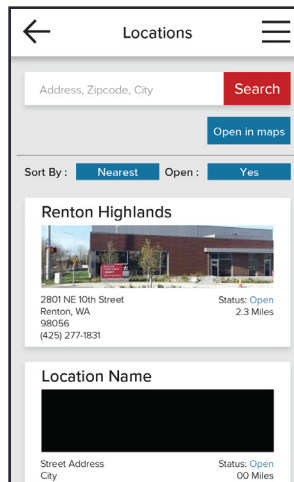
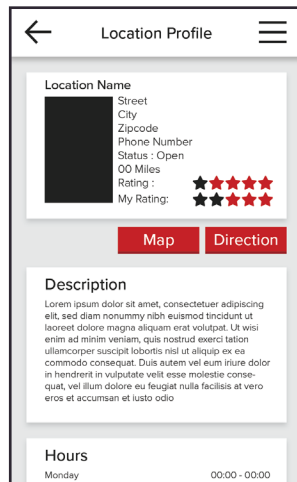


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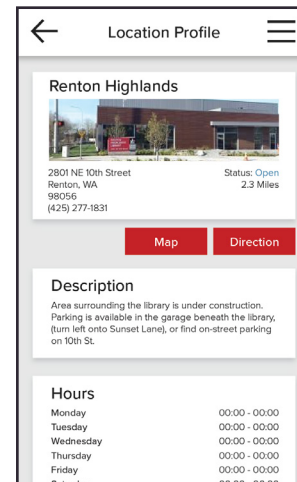
- Redesign location screen



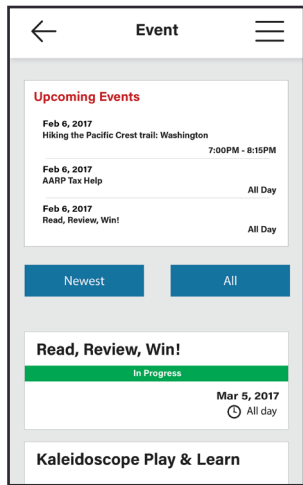
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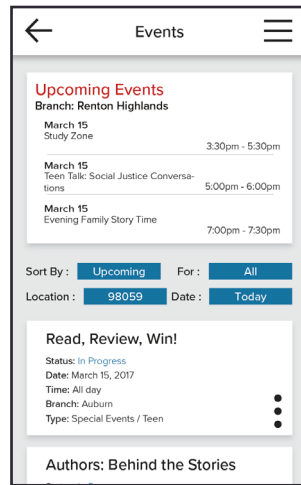
AFTER



- Redesign events screen



BEFORE



AFTER

- Redesign menu icon

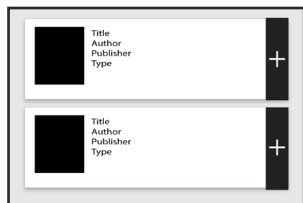


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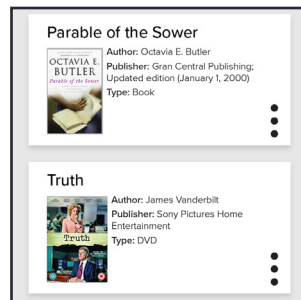


AFTER

- Redesign title layout



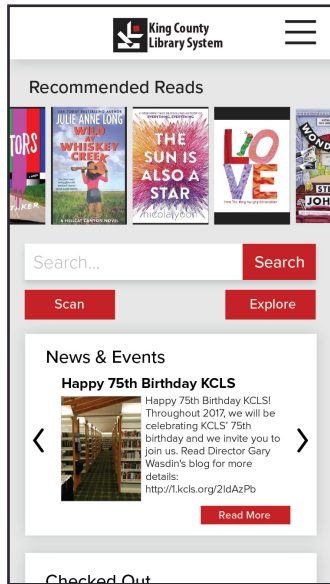
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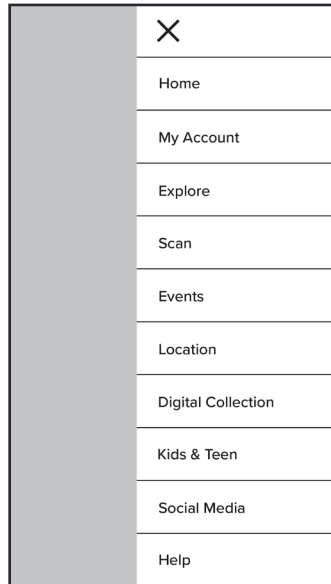
AFTER

- Change main typeface from Helvetica to Proxima Nova

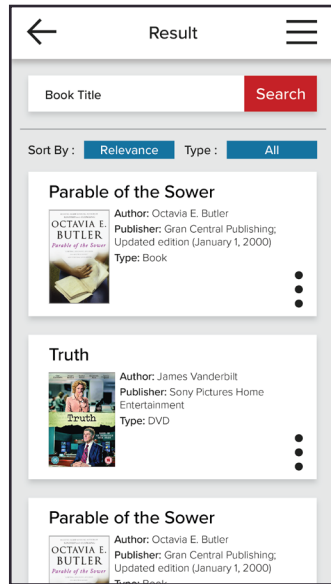
HI-FI PROTOTYPE



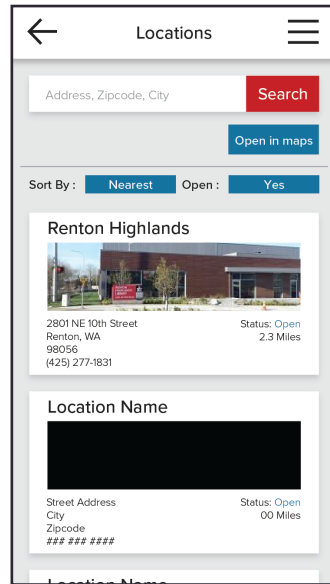
HOME



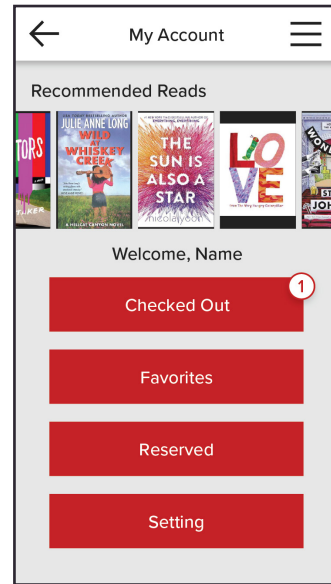
MENU



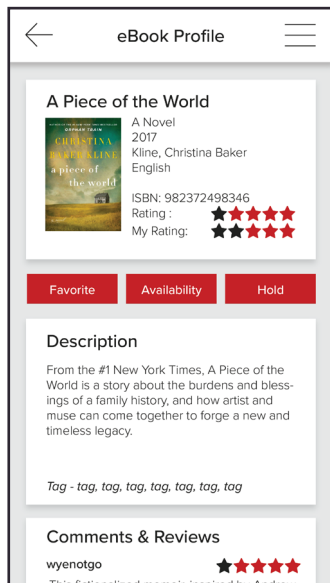
SEARCH RESULTS



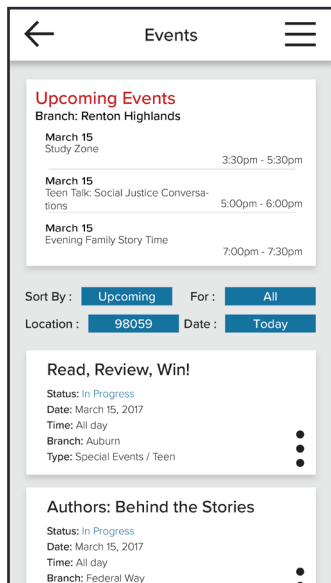
LOCATION



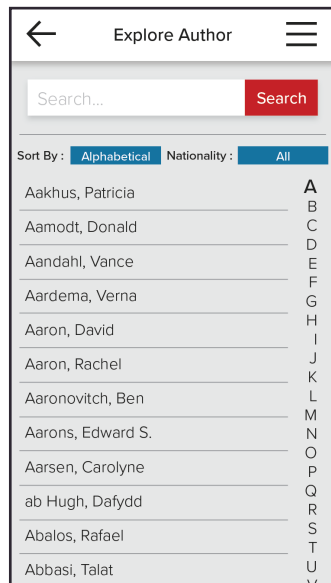
MY ACCOUNT



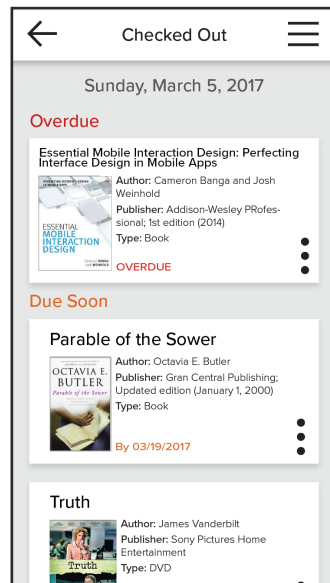
BOOK PROFILE



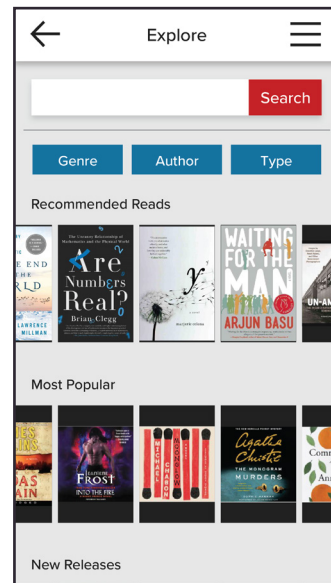
EVENTS



EXPLORE AUTHOR



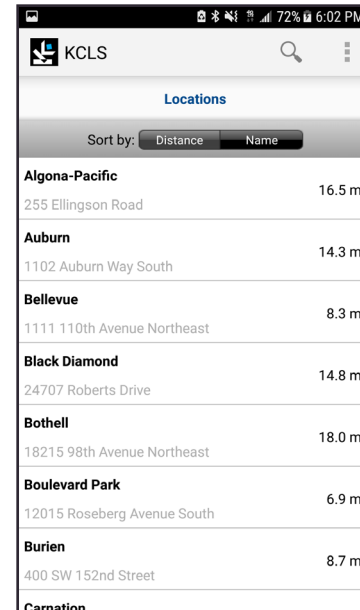
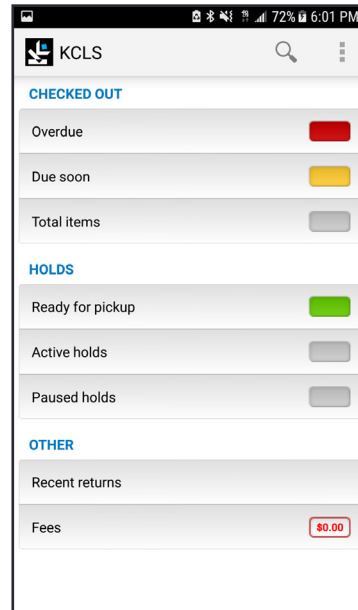
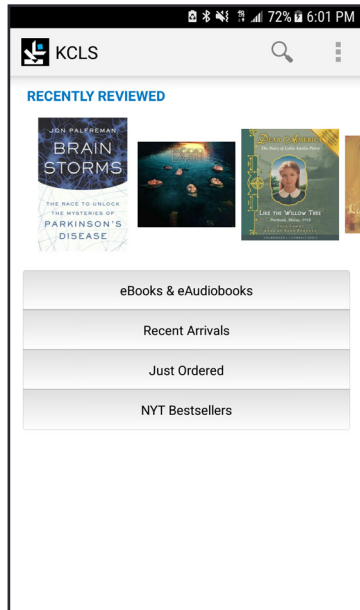
CHECKED OUT



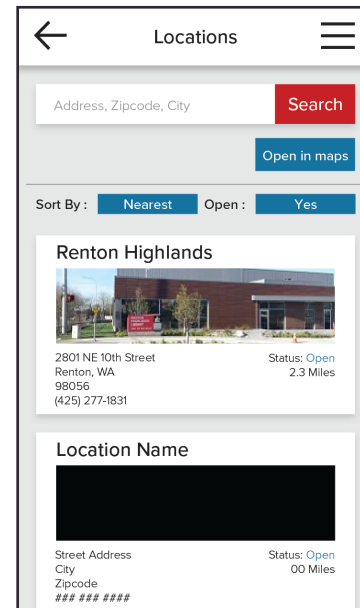
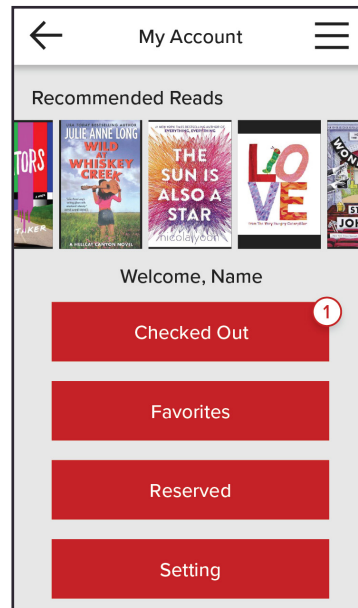
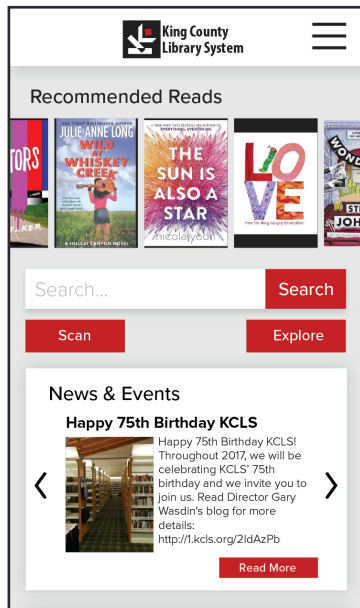
EXPLORE TITLE

FINAL PRODUCT

CURRENT

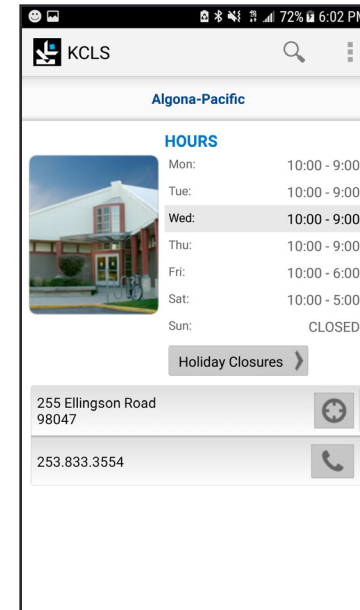
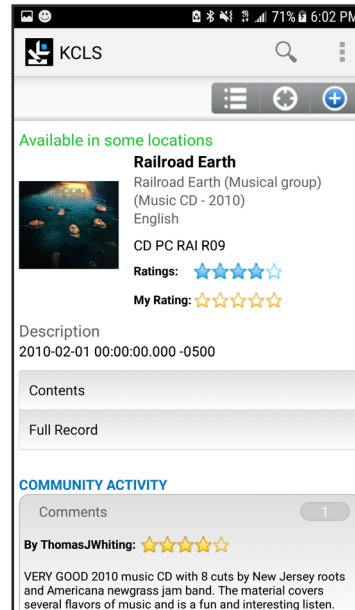
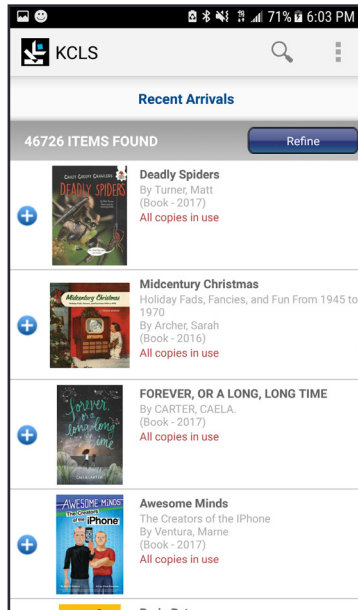


REDESIGN

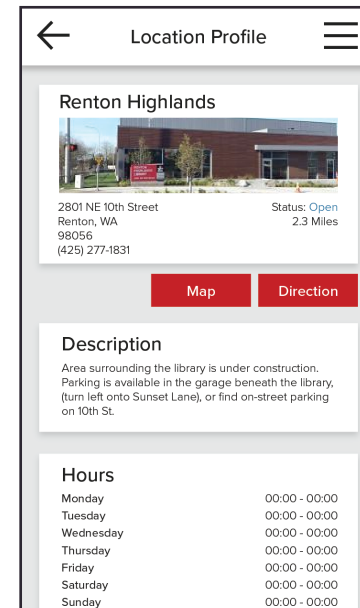
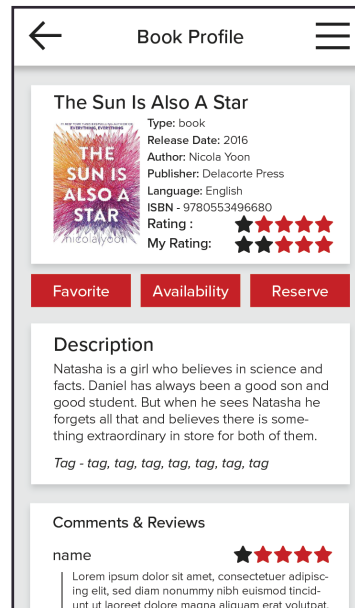
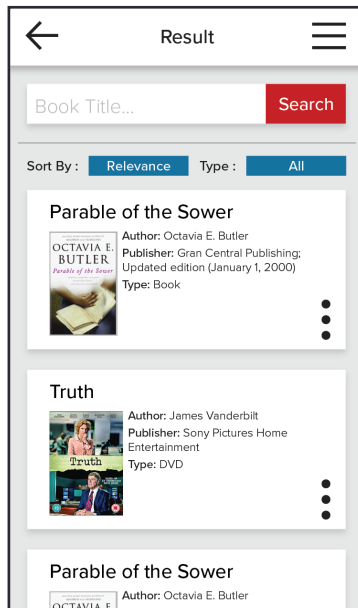


FINAL PRODUCT

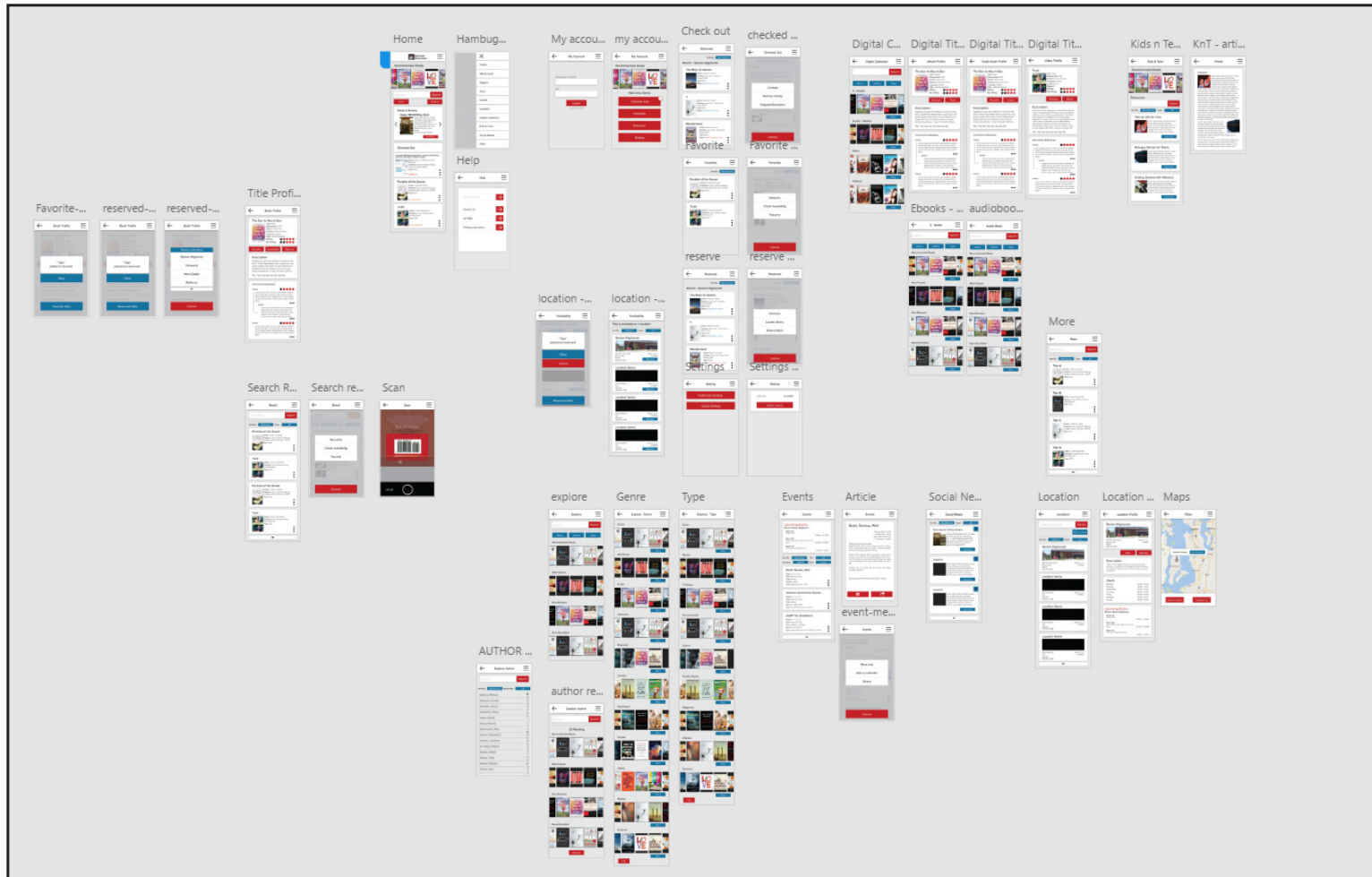
CURRENT



REDESIGN



PROTOTYPE



HI-FI PROTOTYPE:

<https://goo.gl/j86dxt>

FULL PROJECT DETAILS

TheTruDesign.com/KCLS/KCLS-mobile-app.html