



# WhatABook Design

Technical Design Document

APRIL

2023

PRESENTED TO:

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PRESENTED BY:

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William Ege

Janis Gonzalez

WEB 335 Introduction to NoSQL  
Assignment 7.2



# Version History

<u>Author</u>	<u>Janis Gonzalez</u>
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# The Team

## House Slytherin



### Biography

I am a student at Bellevue University pursuing a Bachelor's in Web Development. Currently, I have an associate's degree in programming and software development from my two years at Forsyth Tech Community College. I am originally from Vietnam, but was raised in North Carolina.

**Ngi Bujri**

When I am not studying or doing any schoolwork, I like to play video games as I have been doing my whole life. I also like to play and watch soccer. The team I support is Arsenal FC, who play in the English Premier League. I play for a Sunday league team in Greensboro, NC called Rangers.

I like to try new things so currently I am learning how to draw. Seeing amazing artwork on social media has inspired me to create my own. Learning to draw can boost my creativity, so this can help with web design when I may want to start my own projects. Web development can be a fun process, so I hope to learn more and start a career in this field. I am excited for the opportunities web development may give me.



### Biography

William Egge is a hardworking student currently pursuing a Bachelor of Science in Web Development at Bellevue University. Living in Virginia, near Washington D.C., William is committed to learning and growing in the world of web development and technology. Outside of his academic pursuits, William enjoys exploring his creative side through video game development and pixel art animation. He is always eager to learn new techniques and refine his skills in these areas.

**William Egge**

In addition to his artistic interests, William values the importance of a healthy lifestyle. He makes an effort to exercise regularly and is always on the lookout for new ways to stay active. A fan of the written word, William appreciates the power of reading to inspire, inform, and entertain.

As he continues his journey in the field of web development, William is excited about the opportunities and challenges that lie ahead. With his diverse interests and dedication to learning, William is steadily working towards making a positive contribution to the world of technology and design.



### Biography

After graduating from Oregon State University's School of Psychological Sciences psychology program, Janis has honed their skills in graphic design and community building. Having always been interested in the social media marketing aspect and how users interact with one another, Janis decided it would be best to pursue a second bachelor's degree in Web Development from Bellevue University. Although they are interested in the UI/UX aspect of web development, Janis knows the importance of being a well-rounded developer to understand a team's needs. They have helped many individuals in both small and large online communities with social media managing and graphic design creations to jumpstart their visibility online. Janis enjoys helping smaller businesses as it fosters a greater sense of community amongst one another.



# The Goals

WhatABook Website

**Main Goal:** To expand the presence of the small used book store by offering an online solution for customers to access their book listings

Timeline: Within the given three-week timeframe, requiring efficient planning and execution of the website development process

Browse In-Store Book Listings	Allow customers to browse the available in-store book listings, making it easier for them to discover and learn about the books.
Create and Manage Wishlists	Enable customers to add books they are interested into a personal wishlist, as well as view and manage their wishlist at any time.
Filter Books By Genre and Author	Be able to browse and filter the book listings based on specific genres or authors, allowing them to find books that cater to their interests.
Search For Books	Offer search functionality that allows customers to search for books by title or bookId, making it easier for them to find specific books they are looking for.
Simplistic User Interface	Designed with a simple and intuitive user interface, as most of WhatABook's customers are middle-aged users with minimal computer experience.

# Core Users

## WhatABook Core Users

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### Middle-Aged Customers

The primary target audience for the website is middle-aged individuals who have minimal computer experience. These users are likely to be interested in purchasing used books and may not be as familiar with digital platforms.

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### Book Enthusiasts

For people who are passionate about books and enjoy exploring new titles, authors, and genres. These users may frequently visit the website to browse the book listings and add desired books to their wishlists. The website is designed for people who are passionate about books and enjoy exploring new titles, authors, and genres. These users may frequently visit the website to browse the book listings and add desired books to their wishlists.

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### Bargain Hunters

Caters to users who are interested in finding good deals on used books. These customers may appreciate the affordability of used books compared to new releases and may visit the website to search for specific titles or authors at a lower price.

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### Local Community Members

WhatABook is a small used book store, it is likely to attract customers from the local community who prefer supporting local businesses over larger online retailers. These users may appreciate the convenience of browsing and purchasing books online from a familiar and trusted local source.

# Market Analysis

## Personas and User Stories



**LEON ACHILLES**

Sex : Male  
Age : 54  
Education : PhD  
Job : Librarian  
Address : 123 Anywhere St., Any City

**BIOGRAPHY**  
Leon is not married and has no children. He has loved reading since he was young and decided to pursue it as a career.

**PERSONALITY**

Confident	Insecure
Ambitious	Passive
Organized	Disorganized
Decisive	Indecisive

**MOTIVATIONS**  
Leon loves science fiction and exposing younger individuals to the joy of reading.

**TECHNOLOGY**

Mobile Device
Portable Device (Tablets)
PC and Laptop

**USER TYPE**

- As a librarian,
- As a local community member,
- As a librarian,
- As Leon,
- As a librarian,

**TASK**

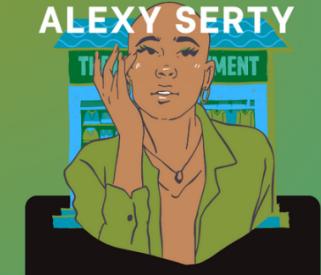
- I want to be able to browse by genre,
- I want to support a small owned business,
- I want to browse books that people know,
- I want to explore new genres,
- I want an easy navigation,

**GOAL**

- so that I can browse many books at once.
- so that I know people are reading.
- so that I know what books are popular.
- so that I find something new to read.
- so that I can easily browse books.

# Market Analysis

## Personas and User Stories



**ALEXY SERTY**

**PERSONALITY**

Confident	Insecure
Ambitious	Passive
Organized	Disorganized
Decisive	Indecisive

**MOTIVATIONS**

Alexy loves advocating for local business and is always on the lookout for a good bargain to make a profit.

**TECHNOLOGY**

Mobile Device
Portable Device (Tablets)
PC and Laptop

**BIOGRAPHY**

Alexy is happily married with two children. They own a small, local thrift shop with curated items by Alexy and their spouse.

**USER TYPE**

- As a bargain hunter,
- As a local community member,
- As a user that is not tech-savvy,
- As Alexy,
- As a user that is not tech-savvy,

**TASK**

- I want to be able to browse by price range,
- I want to know who is behind the business,
- I want an easily accessible site,
- I want a good looking UI,
- I want icons that stand out,

**GOAL**

- so that I can find a good deal,
- so that I can support a small business,
- so that I can easily sign up for an account,
- so that I can visualize the process,
- so that I can easily wishlist items.

# Market Analysis

## Personas and User Stories



### NATASHA TA

Sex : Female  
Age : 60  
Education : Bachelor's  
Job : N/A  
Address : 125 Anywhere St., Any City

**BIOGRAPHY**  
Natasha is a grandmother that lives with her one child. She helps take care of her grandchildren and loves gardening.

PERSONALITY	
Confident	Insecure
Ambitious	Passive
Organized	Disorganized
Decisive	Indecisive

**MOTIVATIONS**  
Natasha enjoys reading when she has time. She sets time throughout the day to read for herself and grandchildren.

TECHNOLOGY	
Mobile Device	
Portable Device (Tablets)	
PC and Laptop	

**USER TYPE**  
As a grandma,  
As Natasha,  
As a user that primarily uses a tablet,  
As someone that enjoys physical books,  
As a user with limited eyesight,

**TASK**  
I want to browse books by new listings,  
I want to browse books by author,  
I want a website that has useful features,  
I want to be able to see in store listings,  
I want a UI with visible listings.

**GOAL**  
so that I can see if there are new releases,  
so that I can look for new books in a series,  
so that it can be accessed on a tablet,  
so that I can see what is available,  
so that I can easily view the images.

# Functional Prototype

Add to wishlist

## ADD TO WISHLIST

Add to wishlist

WhatABook

Filter By Genre  
← Fantasy Comedy Sci-Fi Romance Biography →

[Book Name] added to wishlist

WISHLIST

← 1 2 3 →

# Functional Prototype

Filter by author

## FILTER BY AUTHOR

Author

WhatABook Wishlist

Books By  
J.R.R Tolkien

Filter By Genre  
← Fantasy Comedy Sci-Fi Romance Biography →

WISHLIST

← 1 2 3 →

# Functional Prototype

Filter by genre

## FILTER BY GENRE

Genre

WhatABook

Wishlist

Filter By Genre

← Fantasy Comedy Sci-Fi Romance Biography →

Sci-Fi

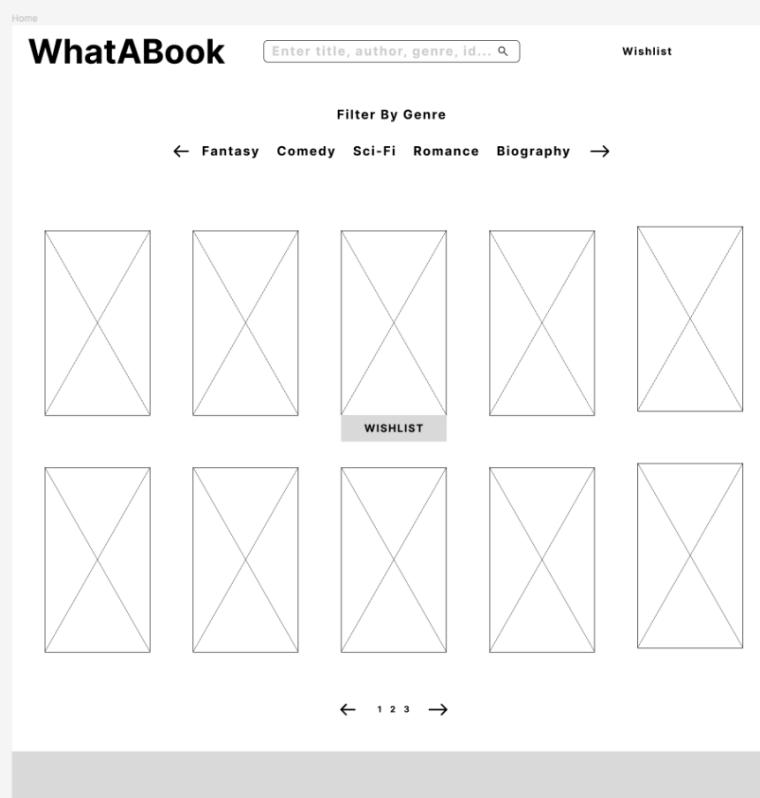
WISHLIST

← 1 2 3 →

# Functional Prototype

Homepage

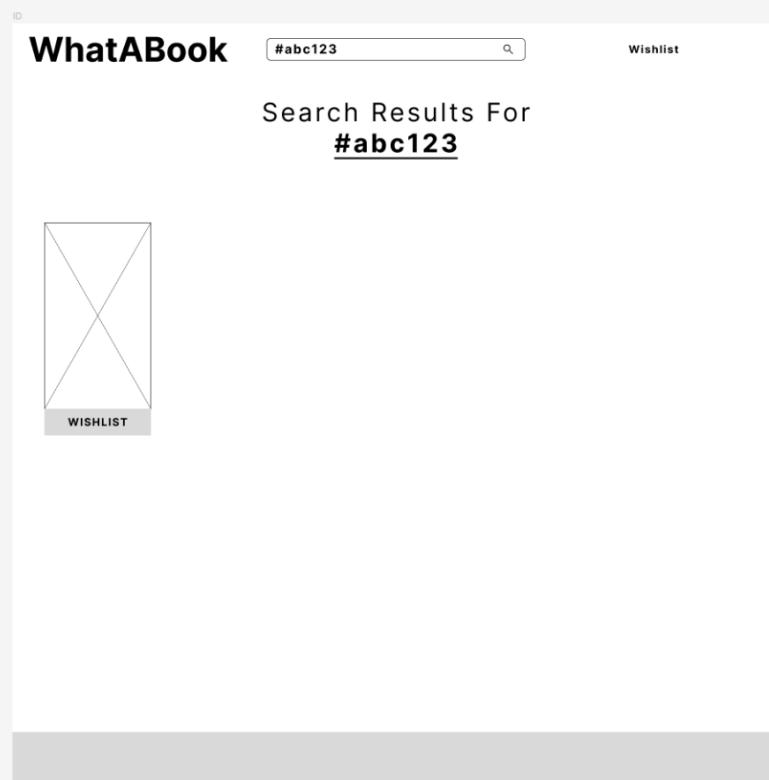
## HOME



# Functional Prototype

Search by ID

## SEARCH BY ID



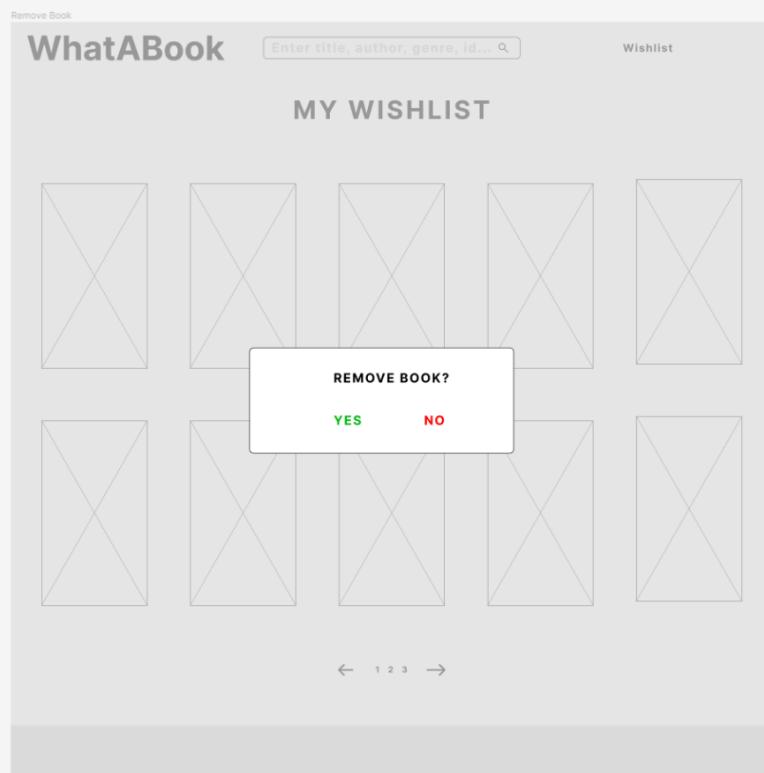
HOUSE SLYTHERIN

PAGE 11

# Functional Prototype

Remove book

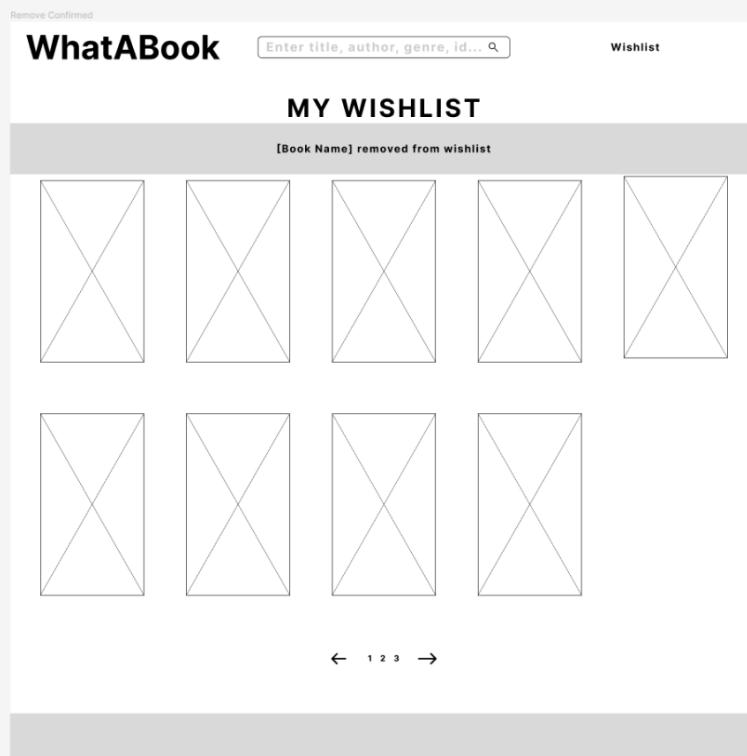
## REMOVE BOOK



# Functional Prototype

Remove Confirmation

## REMOVE CONFIRMED



# Functional Prototype

Search by title

## SEARCH BY TITLE

Title

WhatABook Wishlist

Search Results For  
Harry Potter

Filter By Genre  
← Fantasy Comedy Sci-Fi Romance Biography →

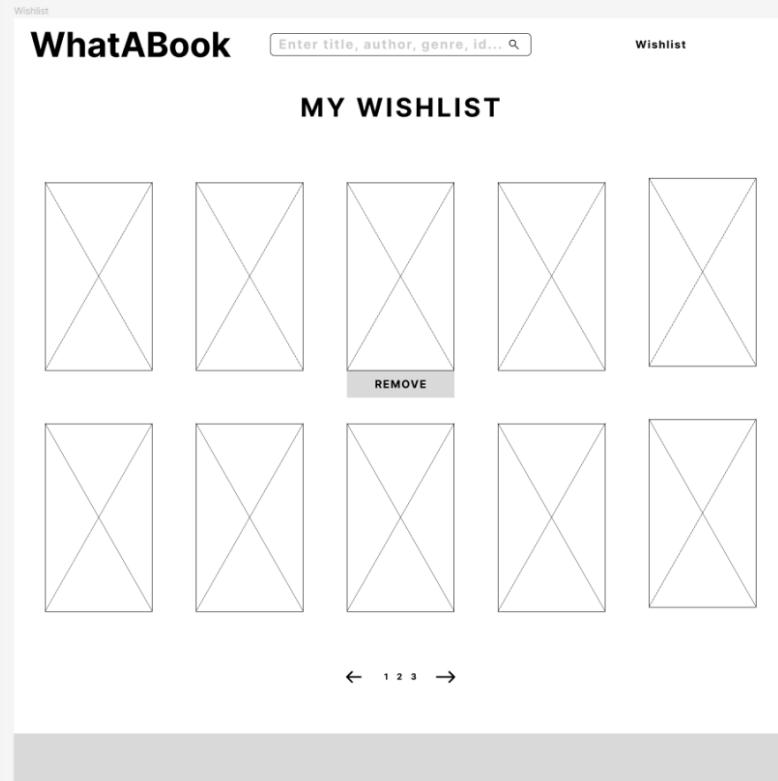
WISHLIST

← 1 2 3 →

# Functional Prototype

Wishlist

## WISHLIST



# Time Estimation

Give a brief explanation for the page

Leon Achilles

story/task	points	hours
Browse by genre	3	4
Support small business	0	1
Browse by popularity	3	4
Explore new genres	1	1
Easy navigation	1	1

Alexy Serty

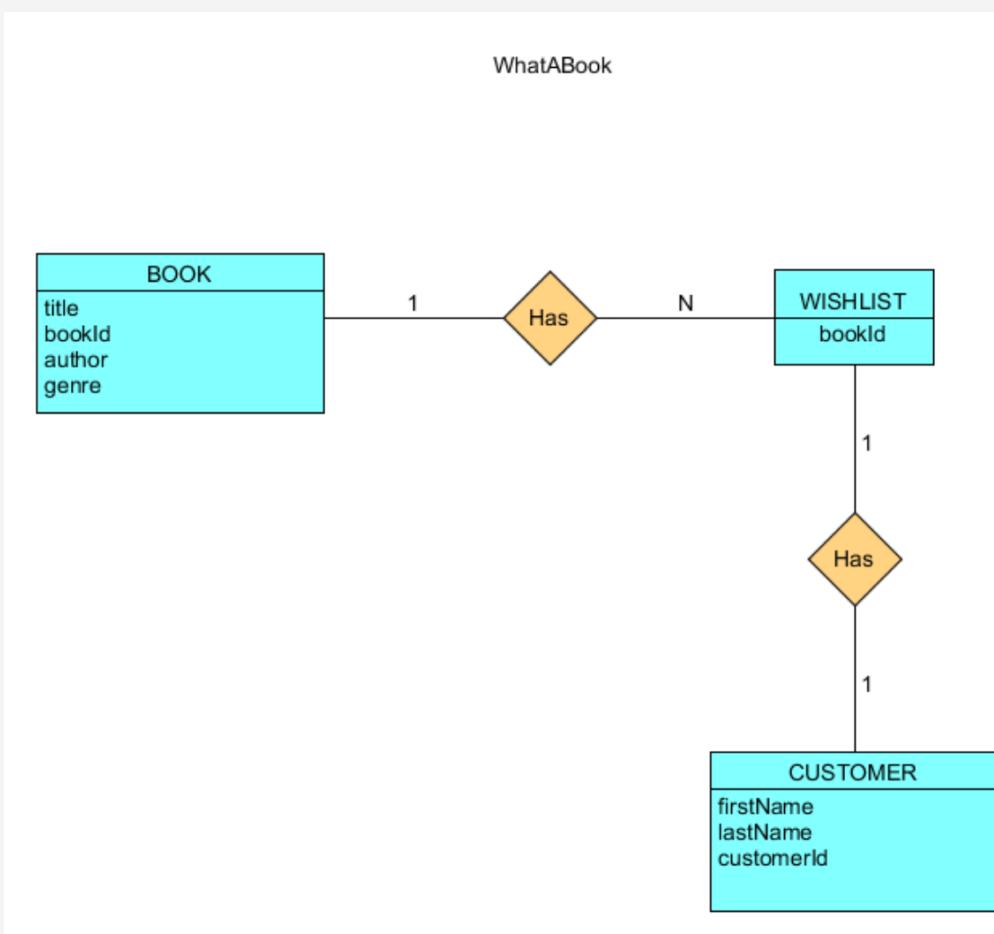
story/task	points	hours
Browse by price range	3	4
Know business owner	0	1
Accessible site	2	2
Good looking UI	3	4
Stand out icons	1	1

Natasha Ta

story/task	points	hours
Browse by new	3	4
Browse by author	3	4
Useful features	3	4
See in-store listings	2	3
UI with visible listings	1	1



# WhatABook ORD



# NoSQL Diagram

firstName	lastName	customerId	bookId
Random	Loki	1234567	113468533427

title	bookId	author	genre
The Silmarillion	9780261103665	JRR Tolkien	Mythopoeia

# NoSQL Data Structure

```
[  
  {  
    "title": "Book Title",  
    "genre": "Genre Type",  
    "author": "Author Name",  
    "bookId": "12345"  
  },  
  {  
    "title": "Book Title",  
    "genre": "Genre Type",  
    "author": "Author Name",  
    "bookId": "12346"  
  }  
]
```



# NoSQL Data Structure

```
[  
  {  
    "firstName": "First Person",  
    "lastName": "Last Name of Person",  
    "customerId": "12343",  
    "wishlist": [  
      {  
        "title": "Book Title 1",  
        "genre": "Genre Type 1",  
        "author": "Author Name 1",  
        "bookId": "12345"  
      },  
      {  
        "title": "Book Title 2",  
        "genre": "Genre Type 2",  
        "author": "Author Name 2",  
        "bookId": "12346"  
      }  
    ],  
    {  
      "firstName": "Second Person",  
      "lastName": "Last Name of Second Person",  
      "customerId": "12347",  
      "wishlist": [  
        {  
          "title": "Book Title 3",  
          "genre": "Genre Type 3",  
          "author": "Author Name 3",  
          "bookId": "12348"  
        },  
        {  
          "title": "Book Title 4",  
          "genre": "Genre Type 4",  
          "author": "Author Name 4",  
          "bookId": "12349"  
        }  
      ]  
    }  
  ]
```



## Additional Images

### Time Estimations

Leon Achilles

story/task	points	hours
Browse by genre	3	4
Support small business	0	1
Browse by popularity	3	4
Explore new genres	1	1
Easy navigation	1	1

Alexy Serty

story/task	points	hours
Browse by price range	3	4
Know business owner	0	1
Accessible site	2	2
Good looking UI	3	4
Stand out icons	1	1

Natasha Ta

story/task	points	hours
Browse by new	3	4
Browse by author	3	4
Useful features	3	4
See in-store listings	2	3
UI with visible listings	1	1

## LEON ACHILLES

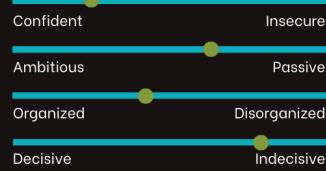


Sex : Male  
Age : 54  
Education : PhD  
Job : Librarian  
Address : 123 Anywhere St., Any City

### BIOGRAPHY

Leon is not married and has no children. He has loved reading since he was young and decided to pursue it as a career.

### PERSONALITY



### MOTIVATIONS

Leon loves science fiction and exposing younger individuals to the joy of reading.

### TECHNOLOGY



### USER TYPE

As a librarian,  
As a local community member,  
As a librarian,  
As Leon,  
As a librarian,

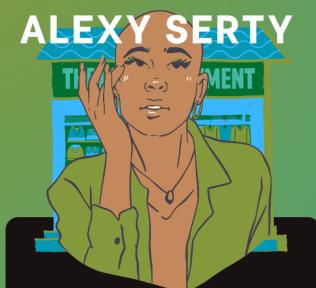
### TASK

I want to be able to browse by genre,  
I want to support a small owned business,  
I want to browse books that people know,  
I want to explore new genres,  
I want an easy navigation,

### GOAL

so that I can browse many books at once,  
so that I can know my community,  
so that I know what books are popular,  
so that I find something new to read,  
so that I can easily browse books.

## ALEXY SERTY

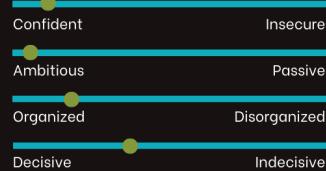


Sex : Male  
Age : 44  
Education : High School Diploma  
Job : Thrift Store  
Address : 124 Anywhere St., Any City

### BIOGRAPHY

Alexy is happily married with two children. They own a small, local thrift shop with curated items by Alexy and their spouse.

### PERSONALITY



### MOTIVATIONS

Alexy loves advocating for local business and is always on the lookout for a good bargain to make a profit.

### TECHNOLOGY



### USER TYPE

As a bargain hunter,  
As a local community member,  
As a user that is not tech-savvy,  
As Alexy,  
As a user that is not tech-savvy,

### TASK

I want to be able to browse by price range,  
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so that I can easily wishlist items.

# NATASHA TA

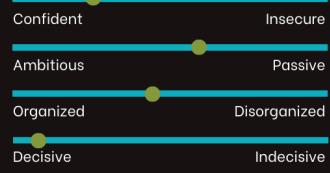


Sex : Female  
Age : 60  
Education : Bachelor's  
Job : N/A  
Address : 125 Anywhere St., Any City

## BIOGRAPHY

Natasha is a grandmother that lives with her one child. She helps take care of her grandchildren and loves gardening.

## PERSONALITY



## MOTIVATIONS

Natasha enjoys reading when she has time. She sets time throughout the day to read for herself and grandchildren.

## TECHNOLOGY



## USER TYPE

- As a grandma,
- As Natasha,
- As a user that primarily uses a tablet,
- As someone that enjoys physical books,
- As a user with limited eyesight,

## TASK

- I want to browse books by new listings,
- I want to browse books by author,
- I want a website that has useful features,
- I want to be able to see in store listings,
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## GOAL

- so that I can see if there are new releases,
- so that I can look for new books in a series,
- so that it can be accessed on a tablet,
- so that I can see what is available,
- so that I can easily view the images.

# ADD TO WISHLIST

Add to wishlist

**WhatABook**

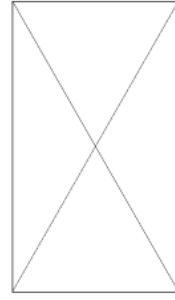
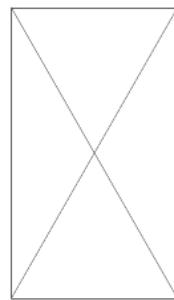
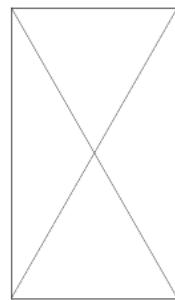
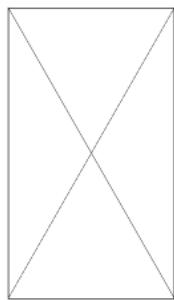
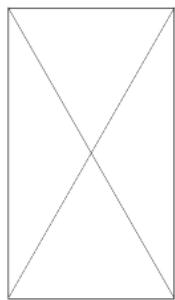
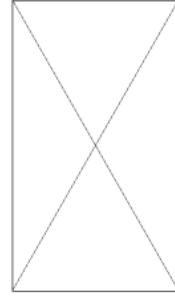
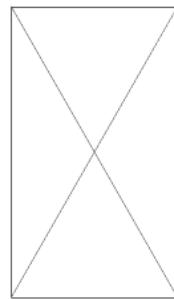
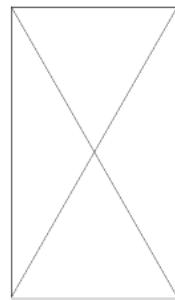
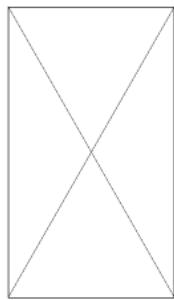
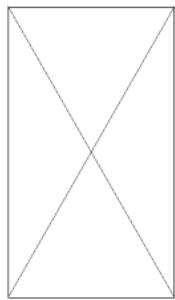
Enter title, author, genre, id... 

**Wishlist**

**Filter By Genre**

← Fantasy Comedy Sci-Fi Romance Biography →

[Book Name] added to wishlist



← 1 2 3 →

# FILTER BY AUTHOR

Author

**WhatABook**

Tolkien

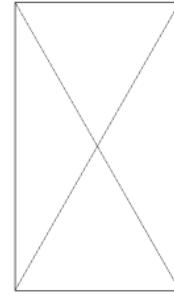
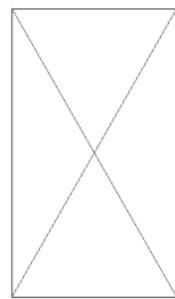
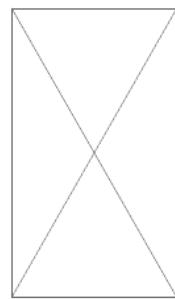
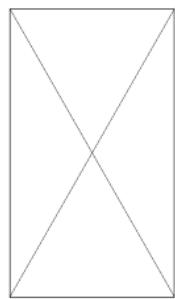
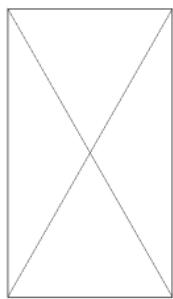
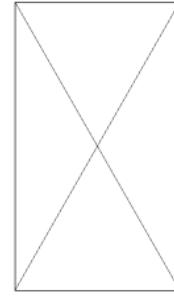
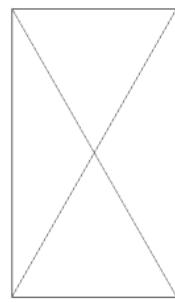
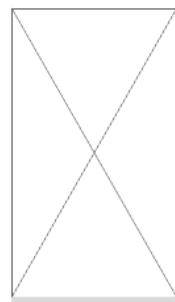
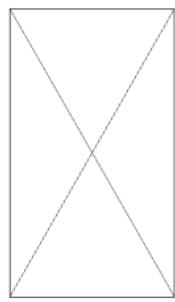
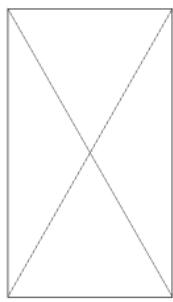


Wishlist

## Books By J.R.R Tolkien

Filter By Genre

← Fantasy Comedy Sci-Fi Romance Biography →



← 1 2 3 →

# FILTER BY GENRE

Genre

**WhatABook**

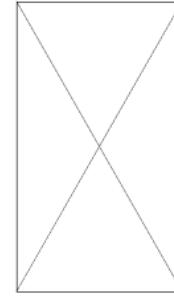
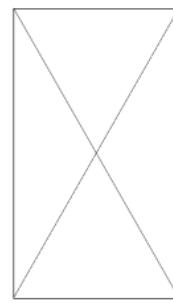
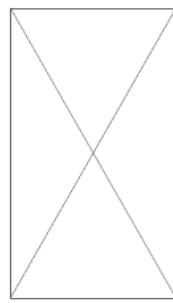
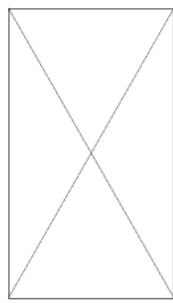
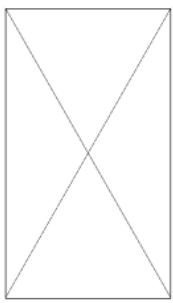
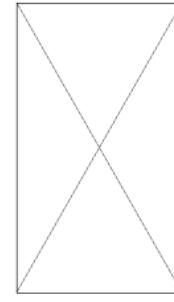
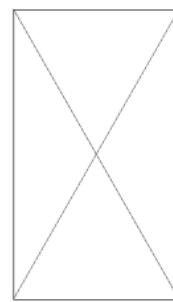
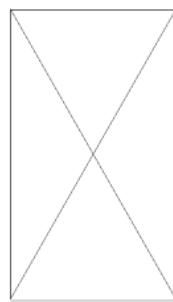
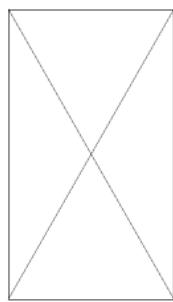
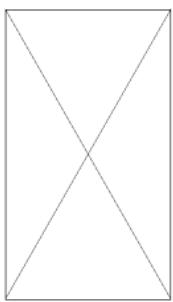
Enter title, author, genre, id...

**Wishlist**

**Filter By Genre**

← Fantasy Comedy Sci-Fi Romance Biography →

Sci-Fi



← 1 2 3 →

# HOME

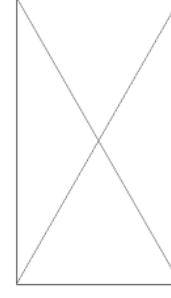
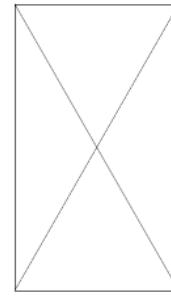
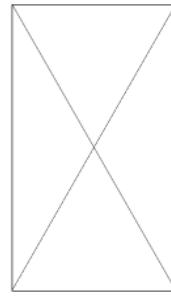
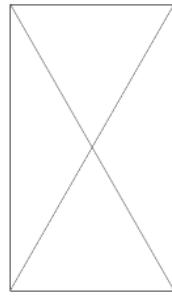
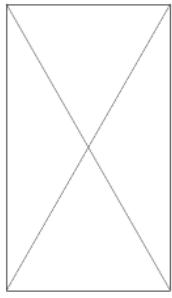
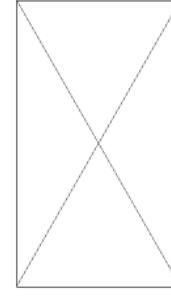
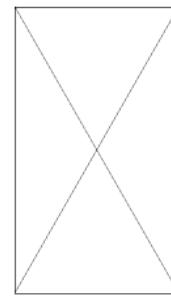
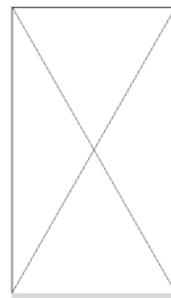
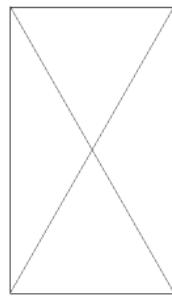
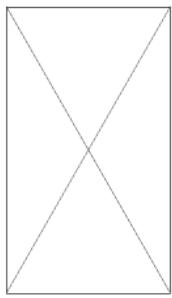
Home

## WhatABook

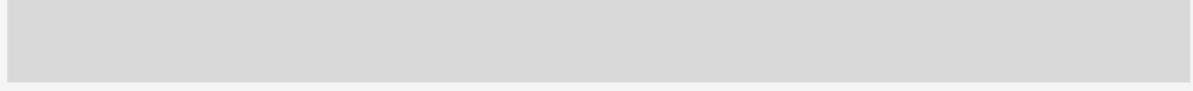
 [Wishlist](#)

Filter By Genre

← Fantasy Comedy Sci-Fi Romance Biography →



← 1 2 3 →



# SEARCH BY ID

ID

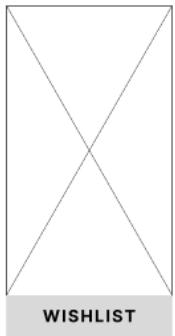
**WhatABook**

#abc123



Wishlist

Search Results For  
**#abc123**



# REMOVE BOOK

Remove Book

WhatABook

Enter title, author, genre, id...

Wishlist

## MY WISHLIST



REMOVE BOOK?

YES

NO



← 1 2 3 →

# REMOVE CONFIRMED

Remove Confirmed

**WhatABook**

**Wishlist**

## MY WISHLIST

[Book Name] removed from wishlist

← 1 2 3 →

A wireframe representation of a book cover grid. The grid consists of two rows of five book covers each. Each book cover is a simple rectangle with a large 'X' drawn through it, indicating they are placeholders or removed items. Below the grid is a navigation bar with arrows and page numbers.

# SEARCH BY TITLE

Title

WhatABook

Harry Potter

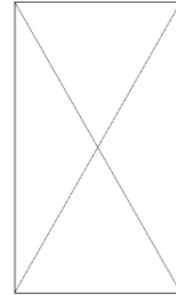
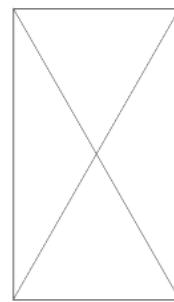
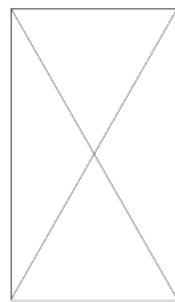
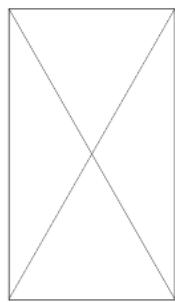
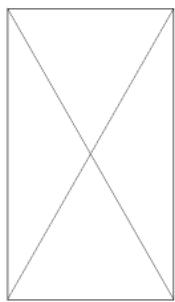


Wishlist

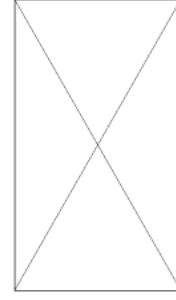
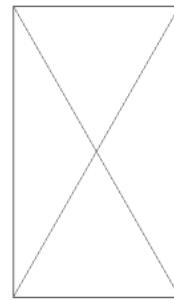
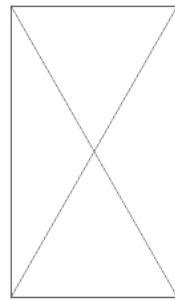
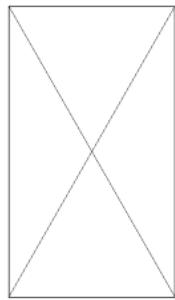
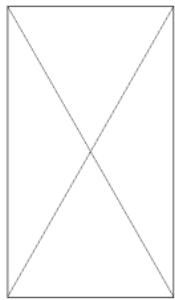
## Search Results For Harry Potter

Filter By Genre

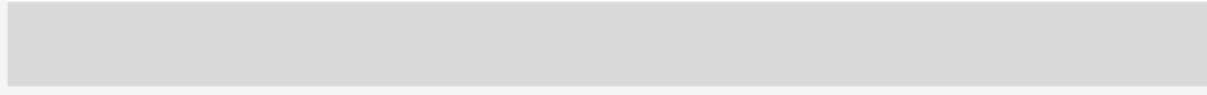
← Fantasy Comedy Sci-Fi Romance Biography →



WISHLIST



← 1 2 3 →



# WISHLIST

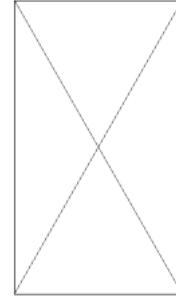
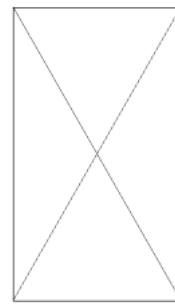
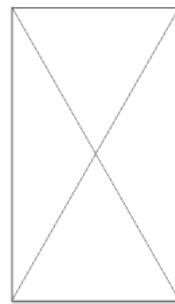
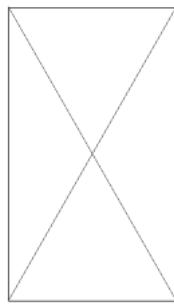
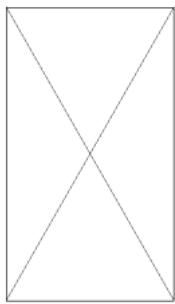
Wishlist

**WhatABook**

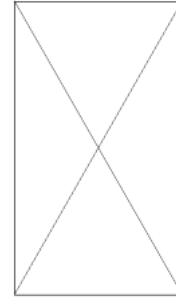
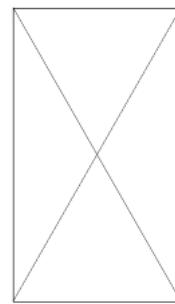
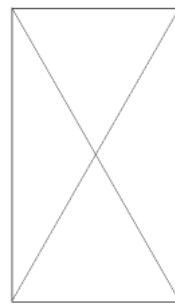
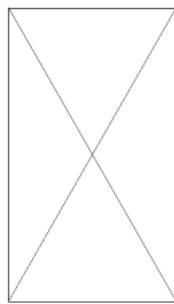
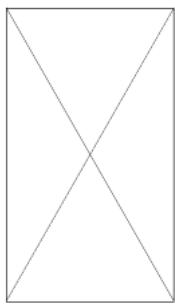
Enter title, author, genre, id...

Wishlist

## MY WISHLIST

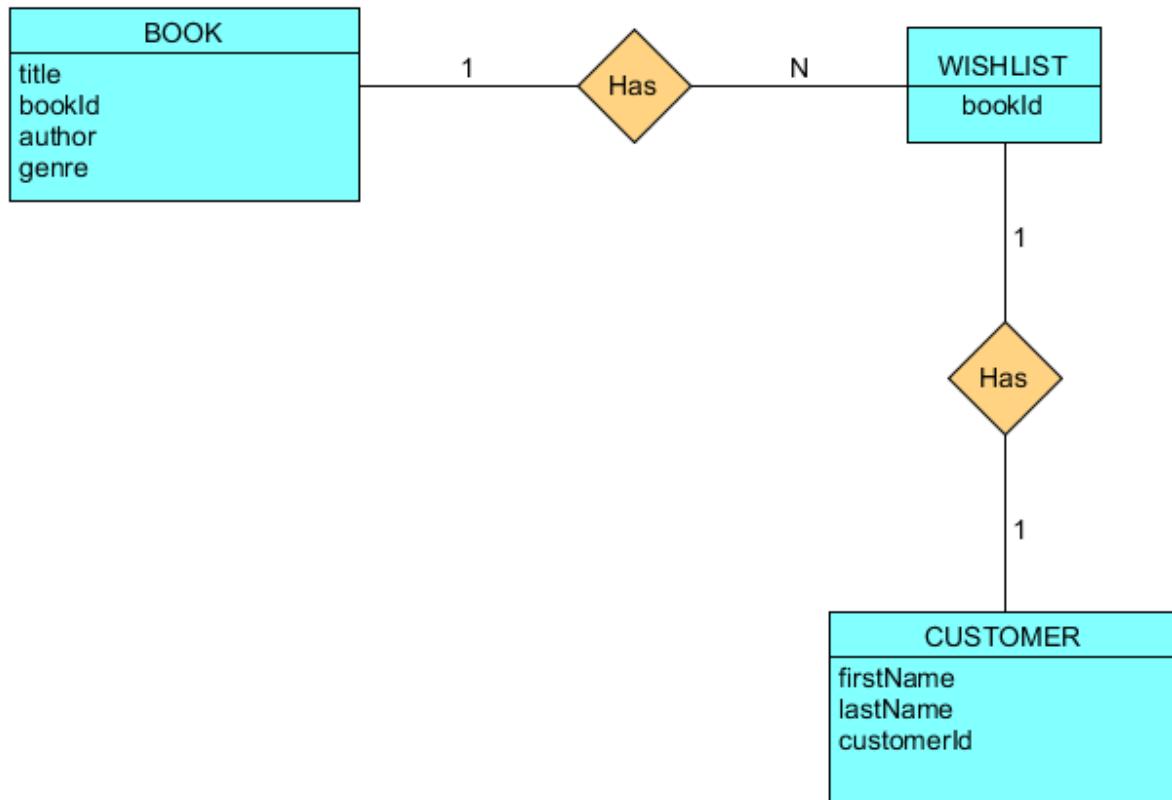


REMOVE



← 1 2 3 →

## WhatABook



## NoSQL Diagram

firstName	lastName	customerId	bookId
Random	Loki	1234567	113468533427

title	bookId	author	genre
The Silmarillion	9780261103665	JRR Tolkien	Mythopoeia

## NoSQL Data Structure

```
[  
  {  
    "title": "Book Title",  
    "genre": "Genre Type",  
    "author": "Author Name",  
    "bookId": "12345"  
  },  
  {  
    "title": "Book Title",  
    "genre": "Genre Type",  
    "author": "Author Name",  
    "bookId": "12346"  
  }  
]
```

```
[  
 {  
   "firstName": "First Person",  
   "lastName": "Last Name of Person",  
   "customerId": "12343",  
   "wishList": [  
     {  
       "title": "Book Title 1",  
       "genre": "Genre Type 1",  
       "author": "Author Name 1",  
       "bookId": "12345"  
     },  
     {  
       "title": "Book Title 2",  
       "genre": "Genre Type 2",  
       "author": "Author Name 2",  
       "bookId": "12346"  
     }  
   ]  
,  
 {  
   "firstName": "Second Person",  
   "lastName": "Last Name of Second Person",  
   "customerId": "12347",  
   "wishList": [  
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       "genre": "Genre Type 3",  
       "author": "Author Name 3",  
       "bookId": "12348"  
     },  
     {  
       "title": "Book Title 4",  
       "genre": "Genre Type 4",  
       "author": "Author Name 4",  
       "bookId": "12349"  
     }  
   ]  
 }]
```

# House Slytherin



Ngi Bujri  
William Egge  
Janis Gonzalez

Assignment 7.2 WhatABook Design  
WEB 335 Introduction to NoSQL  
Richard Krasso  
Bellevue University  
April 30, 2023