Web 335 Assign 7 What A Book Design

TECHNICAL DESIGN DOCUMENT

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**Version History**

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| Name | Date | Reason for Change | Version |
| Shane Hingtgen | 5/3/23 | Added section for query testing | 0.2.0 |
| Chris Gorham | 5/4/23 | Added NoSQL data structure | 0.3.0 |
| Caitlynne Johnson | 5/4/23 | Added NoSQL Diagram | 0.4.0 |
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House Ravenclaw

A picture containing text

Description automatically generated

(Stanton, 2022)

House Ravenclaw was decided on because that was the name in our blackboard groups. We enjoyed the Harry Potter movies and thought the name was pretty neat. Our Mascot is a Raven to go along with the theme of House Ravenclaw. The raven is also a symbol in certain cultures of starting new which most of us are looking to do with our education.

Team Cpt Chris

A person wearing a blue hat

Description automatically generated with low confidence

Chris Gorham was born and raised in Somersworth, New Hampshire and after high school joined the United States Navy. During his 21 years of military service, he travelled to over 40 countries as well as living overseas in Japan for three years. He served in a variety of roles during his time in the Navy, including weapon systems technician, recruiter, weapon systems engineer, Ballistic Missile Defense instructor, and Senior Enlisted Leader. He deployed four times to various theatres of operation, including the Middle East and Asia. He completed an undergraduate degree in Information Technology Management from American Public University System in 2010 and a Master’s degree in Business Administration from Southern New Hampshire University in 2017. After retiring from the Navy, Chris runs a rental property real estate business. His hobbies include running, reading, computer programming, and dabbling in cryptocurrency. He is married with two kids and resides on the eastern shore of Maryland.

A person with the hand on the face

Description automatically generated with medium confidence

Caitlynne Johnson, or Cait, is a student who lives in AK and is 23. She originally started her degree in nursing, but when she felt that it particularly wasn’t a good fit for her to keep going at, she started looking elsewhere and came across Web Development. In the past, she had experimented with coding, and greatly enjoyed it so she figured why not pursue it professionally? She started with a community college in Hagerstown, where she grew up in, working on an associate degree in one of their programs, and then eventually transferred to Bellevue University to get her bachelor’s degree. Caitlynne is a fulltime student, and in her spare time when she isn’t busy with her college courses, enjoys pet-sitting for people in her town and exploring the great outdoors of Alaska. When Caitlynne isn’t doing that, she’s doing one of her many hobbies – reading, writing, baking, or coding.

A picture containing outdoor, tree, person, grass

Description automatically generated

Shane Hingtgen

Shane Hingtgen originally went to community college to learn about Energy Production and Distribution Technologies. While in School Shane got hired as an Electrician where he would work for a few years while in school and a few months after graduation. A few months later after graduation he got hired as a maintenance mechanic at a local machine shop where he would work for about 6 months before the company was going through financial troubles and laid off almost the entire shop. Was laid off for a few months before getting a job as a Wind Turbine Technician then after about 4 years got hired at an engineering firm as an electrical distribution designer.

# SECTION 1: INTRODUCTION

## Purpose

The goals of this website is to allow customers to browse in store book listing, allowing customers to add books to wish list, allows customers to view their wishlist, shows a list of books by genre, by author, by title and for book Id. Must have a simple user interface.

## Terminology

*[Identify the technical terms used in this document]*

|  |  |
| --- | --- |
| **Name** | **Comments** |
| *MEAN Stack* | *MongoDB, Express, Angular, and Node.js* |
| *VS Code* | *Development IDE* |
| *SoapUI* | *API testing tool* |
| *MongoDB Compass* | *Database development IDE* |
| *Angular Material* | [*https://material.angular.io/*](https://material.angular.io/) |
| *Flex-layout* | [*https://github.com/angular/flex-layout*](https://github.com/angular/flex-layout) |

## User Personas

The core users for our website are middle aged to older people who have never heard of Amazon and enjoy reading books

## A person wearing a hat Description automatically generated with medium confidence

(Santana, n.d.)

Name: Randy

Role: Customer

**Characteristics**: Old, retired, doesn’t use computers a lot. Gets frustrated easily on computer applications for being too flashy and not large enough text. Likes reading factual things like history books or car manuals.

**Computer Skill**: Low

**Features Commonly Used**: Searching for books, looking at websites for location and hours. Book reservation

**Features will not likely used**: Probably won’t be big on logins and wish lists unless he can pay online

**Needs**: Phone numbers, hours of operation, address, and search for books

**Genre**: History, Car Books, Manuals etc.

A person sitting on a couch

Description automatically generated with low confidence

(*Old Woman Reading*, 2022)

**User Persona** for “Blanche Martin”

**Distinguishing characteristics that could impact design:** She is an avid read but is older, so she needs a website that is easy to use and does not have a lot of jargon. Her daughter had to show her how to make an account on Facebook. She calls it “the facebook.”

**Feature(s) the persona would use most often. i.e. most important features:** In-store book listing, search by GenreFeature(s) the persona

**would not use often:** Wish List (she keeps her written down)

**Genre of Book They Enjoy The Most:**Romance



(Piacquadio, 2019)

**Name**: Cristina

**Role**: Customer

**Characteristics**: Young, nice, shy, enjoys things being simplistic and not too complicated. Computer Skills: Medium, has some knowledge but not a lot.

**Features Commonly Used**: Searching for books, adding books to a wish list, showing a listing of books by the author.

**Features not likely used**: Searching for book by BookId.

**Needs**: Login area clearly marked, hours of operation, address, for it to be simplistic, not complicated.

**Genre**: Romance, Fantasy

## User Stories

1 most important 5 least important

## User Story 1:

3 As a user I would need a way to search for books by title so I can search specific books

2 As a user I would need a way to search for books by genre so I can find car books

5 As a user I would like a way for it to save my recent searches so I can find them again later

4 As a user I would need to see the store location and hours of operations so I can go pick up my books

1 As a user I would need a way to see if the book is available so I can reserve the book

**User Story 2**:

1 As a user, I need a simple registration process that has an intuitive process that guides me each step of the way.

4 As a user, I need written tips next to each step of the process to help me understand how to use the functionality of the website.

3 As a user, I need an accurate listing of the books that are in-store as I don’t make it to the book store often and don’t want to waste time.

2 As a user, I need the web font to be large enough to be able to read.

5 As a user, I need a link to my favorite genres from previous searches.

**User Story 3**:

1 As a user, I would need an application that is simple and not too complicated. I can search and easily find what I am looking for.

3 I am shy, so as a user, I would prefer a way that allows me to avoid talking to people on the phone. I.e: a link or page that gives me all the information needed.

4 As a user, I would need a way to search for books either by the title themselves or genre.

2 As a user, I would need a way to search up a listing of books by an author I like so it is easier for me to put them on my wish list.

5 As a user, I would need the login area clearly marked so it is easy for me to login and look for books.

## Time Estimations

|  |  |  |  |
| --- | --- | --- | --- |
| User Story | Importance 1-5 | Story Points1,2,3,5,8 | Time Estimation in hrs |
| 1 | 1 | 1 | 1 |
| 1 | 2 | 1 | 1 |
| 1 | 3 | 1 | 1 |
| 1 | 4 | 8 | 8 |
| 1 | 5 | 5 | 4 |
| 2 | 1 | 8 | 8 |
| 2 | 2 | 5 | 6 |
| 2 | 3 | 2 | 4 |
| 2 | 4 | 1 | 1 |
| 2 | 5 | 5 | 4 |
| 3 | 1 | 8 | 8 |
| 3 | 2 | 5 | 8 |
| 3 | 3 | 3 | 5 |
| 3 | 4 | 1 | 1 |
| 3 | 5 | 2 | 1 |

# SECTION 2: PROCESS DESIGN

## 2.1. Prototypes

Diagram

Description automatically generated with medium confidence

Diagram

Description automatically generated

## 2.2. ORD (Object Relational Diagram(s)

Diagram

Description automatically generated

## 2.3. NoSQL Document Diagram

Graphical user interface

Description automatically generated with medium confidence

## 2.4. NoSQL Data Structure

Text

Description automatically generated

Text

Description automatically generated

# SECTION 3: QA TESTING

## 3.1. QA Test Plan

*[Weekly Test Cases]*

## 3.2. Unit Tests

*[Images of SoapUI Unit Tests]*

**3.3. Query Test**

Text

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text

Description automatically generated

Text

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