*SOFTWARE REQUIREMENTS SPECIFICATION*

* **1.1 Software purpose and scope**

The product is a reading application for inmates of the department of corrections that is able to make video calls to their children. The purpose is to allow the inmates to read books to their children.

The product will connect a video call, showing the other person on one part of the screen and displays a book on the other half of the screen. As the book is read, the software will automatically highlight each word that is being said.

The main goal of this software is to give inmates a chance to maintain a positive relationship with their children. This should give the children a higher sense of security. It is also hoped that this software will provide incentive for better behavior from the inmate, less chance of recidivism, and overall improved mental health for the inmate and the families at home.

* **1.2 Document purpose and contents**

The purpose of this document is to show the importance of this software, and how many people will be affected in a positive way from it.

Intended audience for this document: investors, programmers, testers, stakeholders in general.

* **1.3 References**
* **2** **General Factors**
* **2.1 Product perspective**

This product will work with video calling software. The book part of the software will be our product, and the video calling will be done through another application.

* **2.2 Product functions**

Software will recognize when user types credentials in login page. Software will match this input with what is stored in database to determine if login was successful. If unsuccessful, user will be shown a “invalid credentials” message. If successful, user will be directed to the home page. On each page there is a navbar at the top with buttons for home, call guard and library pages.

* **2.3 Environmental conditions**

This product is designed to be used by the department of corrections. The application is shareable to the family of each inmate, once they are invited.

* **2.4 User characteristic**

This product will be used by inmates of the doc, with variations in education level. The design is very simple so that anyone can use it. There is also an app to be used by the inmate’s family, everything will be automatic once they accept the invitation.

* **2.5 Dependencies**

This software will need a decent internet connection. It will need to be installed on a computer, tablet, or phone to be used.

* **2.6 Assumptions**

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* **3**  **Use Cases**

**[Use cases defined in another document.]**

* **3.1 Actor**
* **3.2 Use cases**
* **4** **Specific requirements**
* **4.1 Functional requirements**

**#login**

Once the user has typed their credentials, the software should match this data with what has been stored in the database.

If input does not match, software will redirect user to error message “invalid credentials”

If the input matches what’s in the database, user will be taken to home page.

**#home/library**

If user clicks on navbar, software will bring user to whichever page they pressed.

If user selects a book from library page, software will update the book queue on home page to reflect this change.

If user presses “Add to favorites”, software will add this book to the favorites list.

**#call**

If user presses call button and book queue is empty, an error message will be displayed by the software telling user to select at least one book before proceeding.

If user presses call button and book queue is not empty, the software will proceed to call process.

Once the call process has been initiated, the software will alert the guard to type in their credentials.

Once the guard has approved the call, the software will begin call to the inmates family.

As soon as the call is connected, the software will start a 3o minute timer.

On this page, software will display the inmate’s family on right side of the screen and the first book in the queue will be displayed on the left side of screen.

#book:    The software will highlight words as the user clicks on them.

[Was thinking if the highlighted words would go on a timer or if it would listen for words being said, but I think the user clicking on them might work best]

If the user clicks “turn page” button, the software will display the next page of the book.

If user clicks “add to favorites” the software will add this book to the users favorites list.

#endcall:   Once the 30 minute timer has reached 0, the software will terminate the call and return to the login screen.

If the call is disconnected before the timer has reached 0, the user will be redirected to the home page[actually I think that might cause issues? Well maybe not]

* **4.2 Quality Attributes**
* **4.2.1 Availability**

Should be available during business hours, when inmates are allowed to have visitations.

* **4.2.2 Human Factors**

The layout of the home page and library is very simple, to avoid confusion.

To ensure that anyone can use this system, there are a lot of help buttons around each element of the page that can guide user to navigate page properly.

While the book is displayed in the call page, there is an option to adjust the font size for anyone who is visually impaired.

[Perhaps add a volume button ?]

* **4.2.3 Usability**

* **4.2.4 Performance**

Should be able to navigate through pages, and should be able to connect to someone on the call page. The book should highlight text as it is being read, and users should be able to talk to each other on call screen with little to no lag.

* **4.2.5 Security**

The DOC has their own security measures in place. The security for this particular application would be to limit how much the inmate user is able to access. The inmate user will only have access to login page, change/forgot password, home page, library, and call page once it has been approved by the guard. The application will be complaint with all DOC security measures.

* **4.2.6 Reliability**

When the software has a good internet connection it will be reliable.

* **4.2.7 Maintainability**
* **4.2.8 Enhanceability/Extendability**

New books could be added to the library in the future. This would take a small amount of effort.

* **4.2.9 Portabiliy**
* **4.2.10 V&V Activities**
* **4.2.11 Adaptability**
* **4.3 Non-Functional Requirements Which Are Not Quality Attributes**
* **4.3.1 External Interface Requirements**

The application will be compatible with any computer in the institution as well as any android smart phone/tablet, and any apple smart phone/tablet.

* **4.3.11 Hardware**

A computer or smart phone is required to install the application.

* **4.3.12Software**

The application requires windows 7 or later, and any version of operating system on smart phones be compatible with this application.

* **4.3.13 Communications**
* **4.3.2 Development Environment**

The application must have an internet connection to work. It will work with the internet available at the institution.

* **4.3.3 Delivery Environment**
* **4.3.3.1Site**
* **4.3.3.2 Operations**
* **4.3.4 Design Constraints**
* **4.3.5 Database**

The application works with a cloud database system that only DOC staff will have access to. The database will store inmate information such as: DOC inmate number (inmate userid), inmate password, scheduled visit times for each inmate(this way the system knows if this is an authorized visit), guard sign in (first initial,last name), guard password, phone number of each inmates contact (family members), inmates family member first name and age.

All inmate information stored in database will be deleted on the inmate’s release date. If the inmate re offends and starts a new sentence, they will have to make an entirely new profile.

Guard information will be stored indefinitely, until it is deleted,

* **4.3.6 Deliverable Items, Dates, Conditions**
* **4.3.7 Cost**
* **4.3.8 Standards**
* **5. Future Enhancements**

It is not expected that there will be any future enhancements for this product.

//ignore B,D,G

Appendix A: Definitions, Acronyms, and Abbreviations:

When referring to application, it means the product that we are creating.

References to DOC means the department of corrections, any institution that is going to use this product in their facilities.

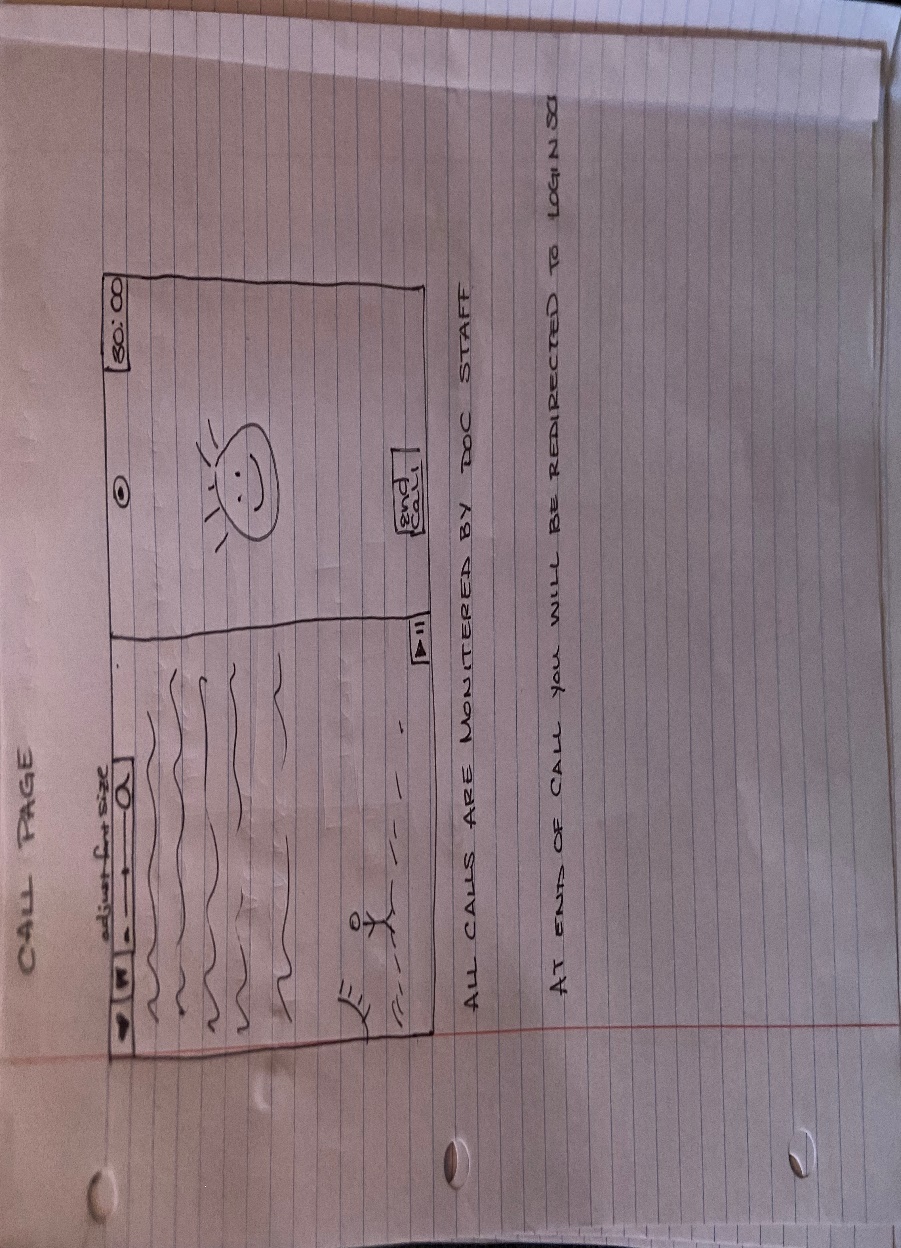
Home, Library, Call, Login are all pages in this application.

|  |  |
| --- | --- |
| software failure | a failure will be attributed to this software product whenever one of the delivered work products does not meet the requirements specified in this SRS, or does not meet ordinary and reasonable customer/user expectations. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Element | Description | Composition or Data type | Length | Values |
| **username** | **Doc number for inmates, first initial and last name for guards.** | **string** | **Min: 5**  **Max:20** | **Any combination of letters, numbers, and special characters.** |
| **Password**  **Book Queue**  **Favorites** | **Password for inmates and guards**  **Books added here by user**  **Favorites selected by user** | **String, sha256 encryption applied once it’s in database**  **Priority queue**  **list** | **Min 5 characters, Max 20 characters**  **N/A**  **N/A** | **Any combination of letters, numbers, and special chars.**  **Must have on euppercase, one lowercase, one digit, one special char.**  **Min one book, Max 10 books**  **Max: 25 books** |

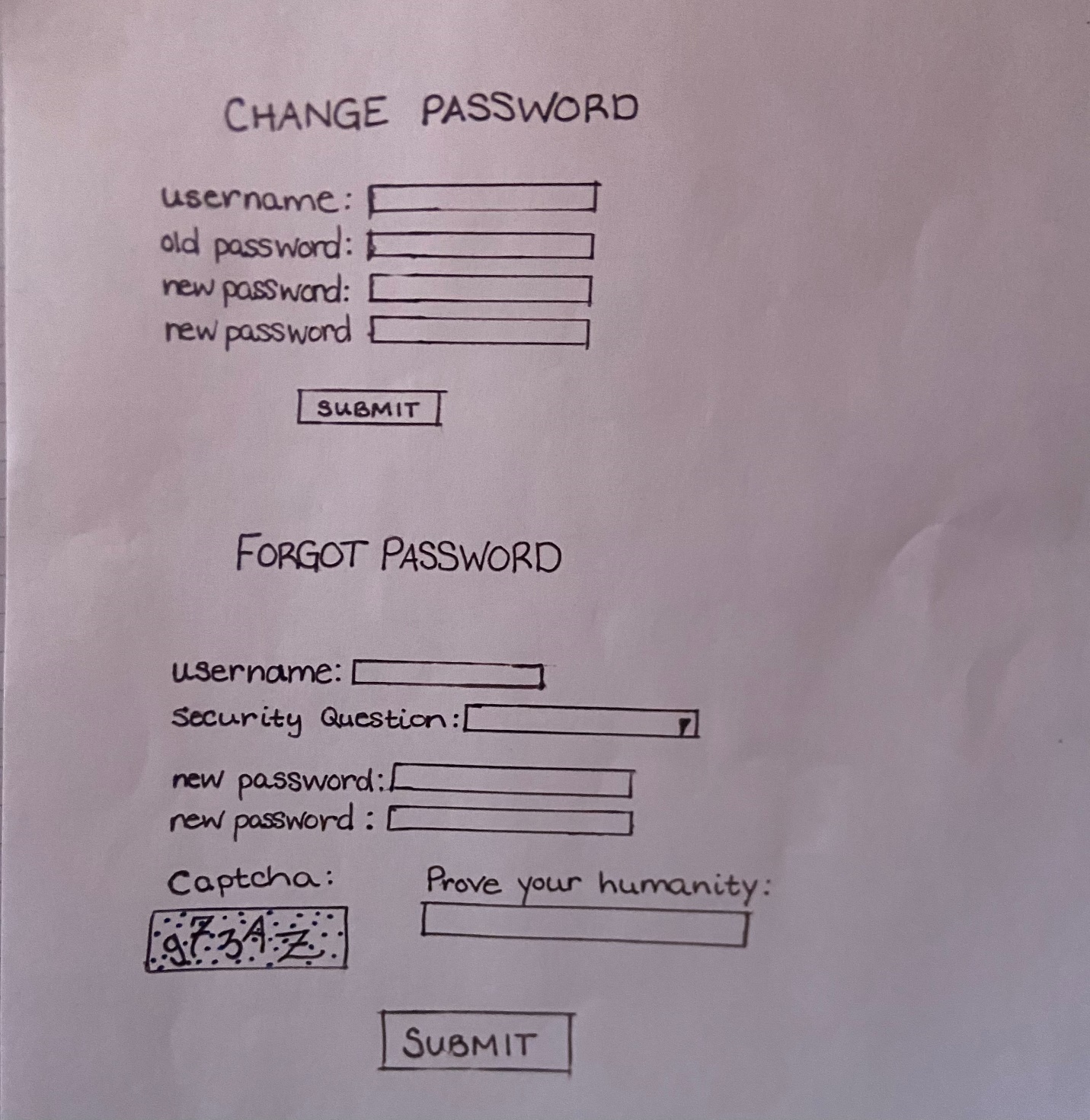
Appendix F:

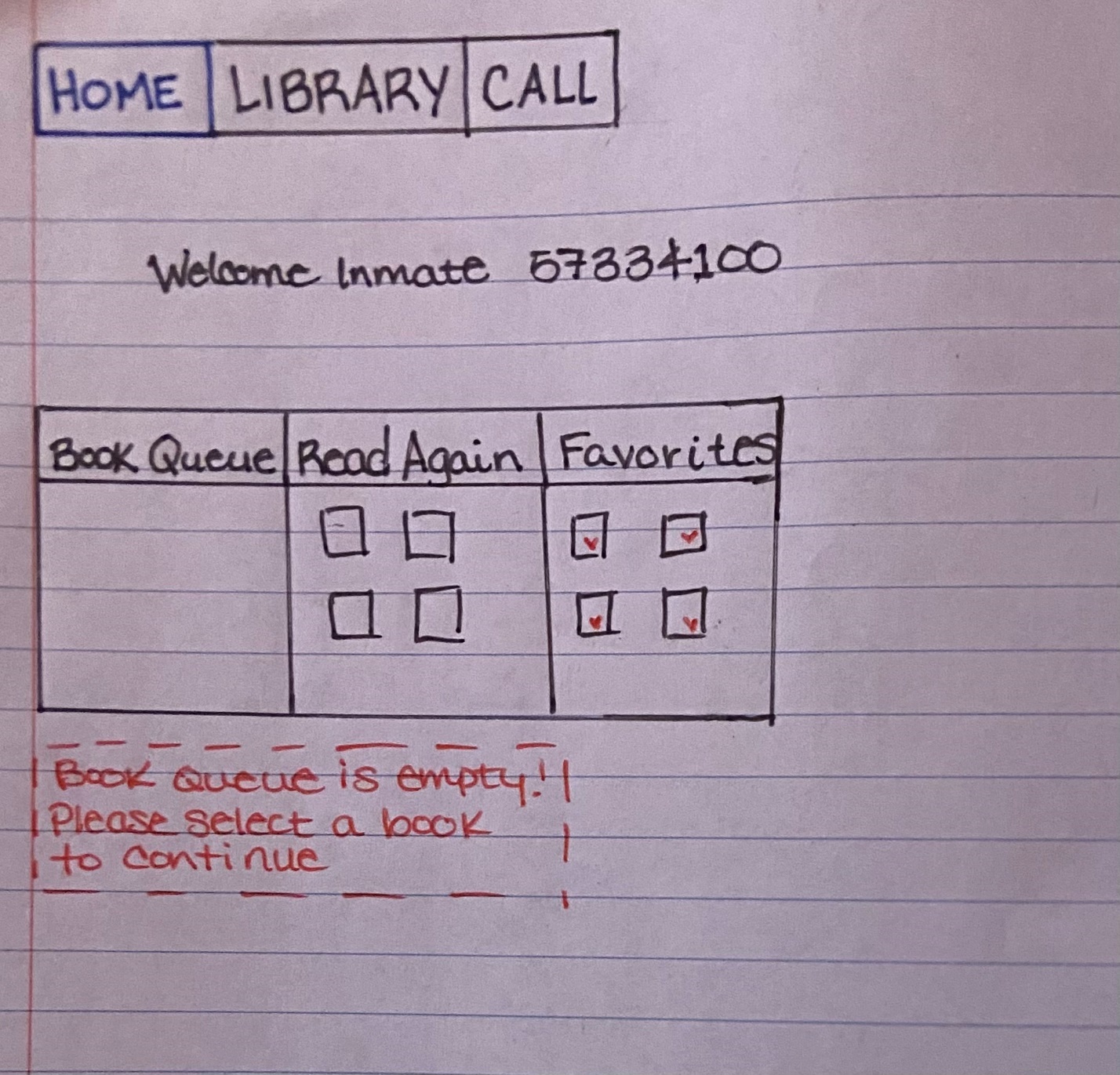
Screen sketches



A white paper with a login form and text

Description automatically generated





A white paper with black text

Description automatically generated