**Storage-X**

****

|  |  |
| --- | --- |
| **Covid Consumers** | |
| **Thadeous Phipps** | [**tphipps@unomaha.edu**](mailto:tphipps@unomaha.edu) |
| **Junfeng Ou** | [**jou@unomaha.edu**](mailto:jou@unomaha.edu) |
| **Kyle Haston** | [**khaston@unomaha.edu**](mailto:khaston@unomaha.edu) |
| **Levi Price** | [**leviprice@unomaha.edu**](mailto:leviprice@unomaha.edu) |

**Milestone 7 Report**

**Milestone Manager: Thadeous Phipps**

**Project Manager: Paul Van Vliet**

****

**Table of Contents**

**Control Documents Page Number**

# Roles & Responsibilities Matrix ………………………………………… 1

**Change Log ………………………………………………………………. 2-3**

**Client Documents**

**Opening Statement ………………………………………………………. 4**

**Executive Summary ……………………………………………………… 5-6**

**Implications for Client …………………………………………………… 7**

**Items for Approval ………………………………………………………. 8**

**Project Documents**

**Commercial Software Component ……………………………………… 9-10**

**Proprietary Software Component ……………………………………… 11**

**Run Sheets ……………………………………………………………… 12-15**

**Structure Chart………………………………………………………… 16**

**CRUD Table ……………………………………………………………… 17**

**Meeting Communications**

**Meeting Minutes: Milestone 5 ……………………………………………. 18-19 Meeting Minutes: Milestone 6 ……………………………………………. 20**

**Meeting Minutes: Milestone 7 ……………………………………………. 20-21**

****

# Control Documents: Roles and Responsibilities Matrix

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Responsibilities** |
| Thadeous Phipps | The Project Manager is responsible for ensuring that the project is delivered on time and to the required quality standards. | Client Document, PM Chart, Commercial Software Component, Proprietary Software Component, Meeting Communications & Control Documents |
| Junfeng Ou | The Project Tracker ensures that members of the project are working in a timely and responsible manner. | Client Document, PM Chart, Commercial Software Component, Proprietary Software Component, Meeting Communications & Control Documents |
| Levi Price | The Project Producer focuses on making sure documents are reviewed before submission and submitted in a timely fashion. | Client Document, PM Chart, Commercial Software Component, Proprietary Software Component, Meeting Communications & Control Documents |
| Kyle Haston | The Project Communicator ensures necessary parts are completed by communicating with team members. | Client Document, PM Chart, Commercial Software Component, Proprietary Software Component, Meeting Communications & Control Documents |

****

**Control Documents: Change Log**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Change Description** | **Team Member** |
| 02/11/2021 | 5.1 | Condensed milestone report from last semester and addedProject Management Gantt Chart | Kyle Haston |
| 02/11/2021 | 5.2 | Updated Table of Contents, added ERD and FRDD | Levi Price |
| 02/12/2021 | 5.3 | Updated Table of Contents, Control Documents, Client Documents, Project Documents, and Meeting Communications | Levi Price  Junfeng Ou  Kyle Haston  Thadeous Phipps |
| 02/13/2021 | 5.4 | Updated ERD, FRDD, and Meeting Communications | Junfeng Ou |
| 02/23/2021 | 6.1 | Updated Table of Contents, Client Documents, and Control Documents | Levi Price |
| 02/27/2021 | 6.2 | Added Comprehensive System Controls Plan, and Disaster Recovery Plans | Kyle Haston |
| 02/28/2021 | 6.3 | Added User Interface screenshot and updated Meeting Communications | Levi Price |
| 03/06/2021 | 6.4 | Updated Comprehensive System Controls Plan and Executive Summary | Kyle Haston |
| 03/06/2021 | 6.5 | Added Computer Architecture Design | Thadeous Phipps |
| 03/09/2021 | 6.6 | Updated UI Design screenshots | Levi Price |
| 03/10/2021 | 6.7 | Updated Computer Architecture Design (Actual Architecture and RFP) | Thadeous Phipps |
| **Date** | **Version** | **Change Description** | **Team Member** |
| 03/12/2021 | 6.8 | Updated Computer Architecture Design and Comprehensive System Controls Plan | Thadeous Phipps  Junfeng Ou  Kyle Haston |
| 03/12/2021 | 6.9 | Updated Executive Summary, Table of Contents, and PM Chart | Levi Price |
| 03/25/2021 | 7.0 | Updated Control Documents and Meetings Communications | Levi Price |
| 3/28/2021 | 7.1 | Started Structure chart | Junfeng Ou |
| 3/31/2021 | 7.2 | Updated Control Document and Meetings Communications | Kyle Haston |
| 3/31/2021 | 7.2 | Completed Commercial Software Component, start CRUD table | Junfeng Ou |
| 4/1/2021 | 7.3 | Updated Control Document, Execute Summary and PM Chart | Levi Price |
| 4/2/2021 | 7.3 | Completed Structure chart and CRUD table | Junfeng Ou |

****

**Client Documents: Opening Statement**

Milestone 7 of the Storage X system has been completed. The systems development project continues to remain on time and budget.

****

**Client Documents: Executive Summary**

Milestone 7 report consists of the Control Documents, Project Documents, and Meeting Communications. The Control Documents contain the Roles and Responsibilities Matrix and the Change Log. These documents cover what the team members will be responsible for as well as what they will be working on during the current milestone. The Change Log notates any changes that have been made within this report. The Project Documents contain the Commercial Software Component and the Proprietary Software Component. The Commercial Software Component contains information regarding our system’s operating system software, website software framework and dependencies, database used, commercial software upgrades, as well as how the commercial software upgrades will affect our system. The Proprietary Software Component contains information regarding the approach of our software design team, Structure Chart, CRUD Table, and run sheets for our modules. The Structure Chart is a top-down modular design tool made up of squares representing the different modules in our system. This will help us design, code, and test each module individually and to know how they are connected together. The CRUD Table is a set of operations used to describe the user interface of our system such as creating, reading, updating, and deleting. The individual run sheets for our modules are necessary in order to implement and execute the different functions in our system.

Lastly, we have our Meeting Communications that contains each Milestone Meeting Minutes. These Meeting Minutes cover the times the team members met to discuss the status of the milestone.

****

**Client Documents: Implications for Client**

Milestone 7 implications for the client have been requiring consent for information needed to continue the progress with the development of the project. No weekly meetings have been set up with the client, but are available by appointment and emails are exchanged periodically. No work processes of the client will be affected by the changes in the current milestone. The client will not be required to learn any skills that are affected by the current milestone. This milestone is setting up the backbone for the client to effectively increase their productivity by streamlining their work processes into a more organized and automated approach. As a team we plan to develop and implement an effective information system for our client.

****

**Client Documents: Items for Approval**

**Items for Approval:** Access to information on DIY’s data management.

**Status:** All the items have been approved by the client, Kirk Alloway.

****

**Project Documents: Commercial Software Component**

**Operating system:**

Name: 64-bit Windows 10 OS Build Version: 18363.1440 Manufacture: Microsoft

**Website software framework and dependencies:**

Name: **React** Version: 17.0.1 Manufacturer: Facebook

Name: **NextJS** Version: 10.0.3 Manufacturer: NextJS Team

Name: **GraphQL** Version: 15.4.0 Manufacturer: Lee Byron

Name: **TailwindCSS** Version: 2.0.3 Manufacturer: TailwindCSS Team

Name: **Style-Component** Version: 5.2.1 Manufacturer: Styled Component Team

Name: **KeystoneJs** Version: 9.3.0 Manufacturer: Keystone Team

**Database:**

Name: **MongoDB** Version: 4.0 Manufacturer: MongoDB Team

**Commercial software upgrades:**

**React**: Future software updates will not affect current version.

**NextJS**: All current features will work with future updates.

**GraphQL**: All current features will work with future updates.

**TailwindCSS**: Future updates will have no impact on the project if we do not switch to the new version.

**Styled-Component**: Styled Component uses plain CSS; no future updates will affect the current software.

**KeystoneJS**: Future updates may have some impact on the software. New features will be announced ahead of time and the Keystone team will send out emails to developers to notify everyone for future changes that may break current applications with recommended changes. We will act accordingly once the update rolls out.

****

**Project Documents: Proprietary Software Component**

**Software Design Team Identification**

**Members and Roles**

Junfeng Ou - Design and Code

Kyle Haston - Testing

Thadeous Phipps - Documentation

Levi Price - Documentation

**Software Development Approach**:

On this project the software design team utilizes a top down structured development, where the team first begins by developing the first-level systems and progressively develops each subsystem with more detail until the subsystem contains the base values necessary. By utilizing this approach the team intends to break down the database diagram into its core components and develop a web-app based on those principles.

****

**Project Documents: Module Runsheets**

|  |  |
| --- | --- |
| **Course:** | **ISQA 4120 – System Design & Implementation** |
| **Document:** | **Program/Module Runsheet** |

|  |  |
| --- | --- |
| **Module Name:** | Sign Up Form |
| **Location:** | Systems Development |
| **Programmer(s):** | Covid Consumers |
| **Date Completed:** | March 28, 2021 |
| **Project Name:** | Covid Consumers |
| **Client:** | DIY Storage |

|  |  |
| --- | --- |
| **Module Objectives:** | Sign Up on the website |
| **Manual Input:** | User enters required information fields  User clicks Sign Up button to sign up |
| **Files Used:** | Customer: read/write |
| **Fields Used:** | Customer. Customer.username: read/write  Customer. Customer.email: read/write  Customer Customer.password: read/write  Customer. Customer.name: read/write  Customer. Customer.address: read/write  Customer. Customer.city: read/write  Customer. Customer.state: read/write  Customer. Customer.ZipCode: read/write  Customer. Customer.Phone: read/write  Customer. Customer.DriversLicense |
| **Output:** | Outcome of Customer Signup |
| **Hardware Requirements:** | Minimum 2GB RAM |
| **Program Messages:** | None |
| **Controls:** | All fields listed above are required |

|  |  |
| --- | --- |
| **Course:** | **ISQA 4120 – System Design & Implementation** |
| **Document:** | **Program/Module Runsheet** |

|  |  |
| --- | --- |
| **Module Name:** | About Page |
| **Location:** | Systems Development |
| **Programmer(s):** | Covid Consumers |
| **Date Completed:** | March 31, 2021 |
| **Project Name:** | Covid Consumers |
| **Client:** | DIY Storage |

|  |  |
| --- | --- |
| **Module Objectives:** | Learn about DIY Storage |
| **Manual Input:** | No input required |
| **Files Used:** | None |
| **Fields Used:** | N/A |
| **Output:** | N/A |
| **Hardware Requirements:** | Minimum 2GB Ram |
| **Program Messages:** | N/A |
| **Controls:** | N/A |

|  |  |
| --- | --- |
| **Course:** | **ISQA 4120 – System Design & Implementation** |
| **Document:** | **Program/Module Runsheet** |

|  |  |
| --- | --- |
| **Module Name:** | FAQ |
| **Location:** | Systems Development |
| **Programmer(s):** | Covid Consumers |
| **Date Completed:** | March 30, 2021 |
| **Project Name:** | Covid Consumers |
| **Client:** | DIY Storage |

|  |  |
| --- | --- |
| **Module Objectives:** | Answer common questions customers might have about DIY-Storage or how to use the website. |
| **Manual Input:** | User enters required information fields |
| **Files Used:** | None |
| **Fields Used:** | N/A |
| **Output:** | N/A |
| **Hardware Requirements:** | Minimum 2GB RAM |
| **Program Messages:** | N/A |
| **Controls:** | N/A |

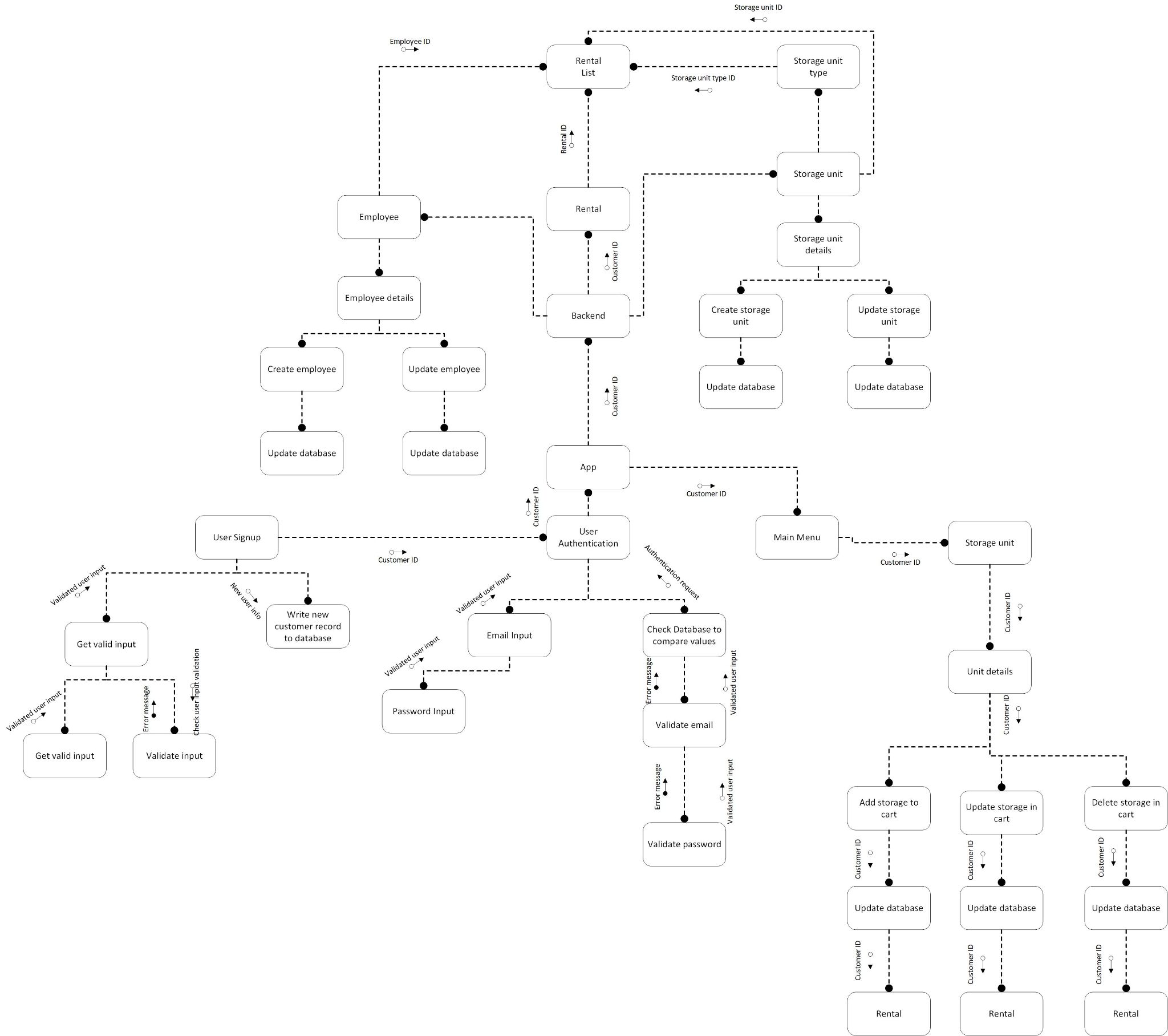
|  |  |
| --- | --- |
| **Course:** | **ISQA 4120 – System Design & Implementation** |
| **Document:** | **Program/Module Runsheet** |

|  |  |
| --- | --- |
| **Module Name:** | Cart |
| **Location:** | Systems Development |
| **Programmer(s):** | Covid Consumers |
| **Date Completed:** | March 29, 2021 |
| **Project Name:** | Covid Consumers |
| **Client:** | DIY Storage |

|  |  |
| --- | --- |
| **Module Objectives:** | The objective of the cart is to add available storage units to the cart. |
| **Manual Input:** | User enters required information fields |
| **Files Used:** | Storage Unit: read/write  Storage Unit Type : read/write |
| **Fields Used:** | Storage Unit . Storage\_Unit\_Availability  Storage Unit Type. Storage Unit Type\_ID  Storage Unit. Storage\_Unit\_ID  Storage Unit. Storage\_unit\_price |
| **Output:** | Outcome of Cart (Items Added / Not Added Successfully) |
| **Hardware Requirements:** | Minimum 2GB RAM |
| **Program Messages:** | Cart Updated Successfully |
| **Controls:** | N/A |

****

**Project Documents: Structure Chart**

****

****

**Project Documents: CRUD Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CRUD** | **Customer** | **Rental** | **Employee** | **Storage Unit** | **Rental List** | **Storage Unit Type** |
| **User Signup** | C |  |  |  |  |  |
| **User Authentication** | C |  |  |  |  |  |
| **Storage Unit Details** | R |  |  | R |  |  |
| **Add storage to cart** | C |  |  |  |  |  |
| **Update storage to cart** | U |  |  |  |  |  |
| **Delete storage to cart** | D |  |  |  |  |  |
| **Create Storage unit** |  |  |  | C |  |  |
| **Update Storage unit** |  |  |  | U |  |  |
| **Employee Details** |  |  | R |  |  |  |
| **Create Employee** |  |  | C |  |  |  |
| **Update Employee** |  |  | U |  |  |  |
| **Rental** |  | R |  |  |  |  |
| **Rental List** |  |  |  |  | R |  |
| **Storage Unit Type** |  |  |  |  |  | R |

****

**Meeting Communications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Communication Management Plan** | | | | |
| **Who** | **What** | **Why** | **When** | **Where** |
| Team Members | Ongoing Emails | Inform team members about current status of the project | As needed | UNO Email |
| Team Members | Ongoing Messages | Discuss with team members about current status of the project | As needed | Discord |
| Team Members and Client | Stakeholder Meeting | Provide milestone updates to the client | By appointment | Zoom |

|  |
| --- |
| **Meeting Minutes:** Milestone 5  **Date:** 02/12/2021  **Time:** 3 PM  **Location:** Zoom  **Attendance:** Project Manager, Levi Price**,** Junfeng Ou, Kyle Haston, and Thadeous Phipps  **Notes:** In the meeting, we discussed some of the flaws in our Entity Relationship Diagram and the Full Relational Database Design with the Project Manager. We also obtained some general advice on how we should improve our model from the Project Manager. Lastly, we discussed the general format of the milestone document and the structure we need to follow in each section. |

|  |
| --- |
| **Meeting Minutes:** Milestone 5  **Date:** 02/12/2021  **Time:** 8 PM  **Location:** Discord  **Attendance:** Levi Price**,** Junfeng Ou, Kyle Haston, and Thadeous Phipps  **Notes:** In the meeting, we discussed each team member's role & responsibilities in the milestone. Levi is updating the Control Documents, Client Documents, Project Documents, and Meeting Communications. Kyle started to create the Project Management Chart with Office Timeline, but Levi will be converting our agenda to Microsoft Project. Jun is creating the Entity Relationship Diagram with Lucidchart and the Full Relational Database Design with Microsoft Access. Thadeous is responsible for reviewing the milestone and verifying all parts have been completed. |

|  |
| --- |
| **Meeting Minutes:** Milestone 6  **Date:** 02/28/2021  **Time:** 12 PM  **Location:** Zoom  **Attendance:** Project Manager, Kyle Haston,Junfeng Ou, and Levi Price  **Notes:** In the meeting, we discussed our progress on the Milestone 6 report. Noting that the Executive Summary could use better client friendly details about the project documents. The need to get started on the Computer Architecture Design & Proposal document. The Comprehensive System Controls Plan needs to be updated and could have better descriptions. The User Interface is off to a good start. |

|  |
| --- |
| **Meeting Minutes:** Milestone 6  **Date:** 03/12/2021  **Time:** 1 PM  **Location:** Zoom  **Attendance:** Project Manager, Kyle Haston,and Thadeous Phipps  **Notes:** In the meeting, we discussed our progress on the Milestone 6 report before resubmission. The Project Manager mainly recommended changes towards our RFP and Control Plan. |

|  |
| --- |
| **Meeting Minutes:** Milestone 7  **Date:** 03/22/2021  **Time:** 6:30 PM  **Location:** Zoom  **Attendance:** Kyle Haston, Levi Price, and Thadeous Phipps  **Notes:** In the meeting, we discussed our progress on Milestone 7 and worked on our Structure Chart. |

|  |
| --- |
| **Meeting Minutes:** Milestone 7  **Date:** 03/25/2021  **Time:** 8 PM  **Location:** Zoom  **Attendance:** Project Manager, Junfeng Ou, Levi Price, and Thadeous Phipps  **Notes:** In the meeting, we discussed our progress on Milestone 7 so far with the Structure Chart. The Project Manager provided feedback and recommended improvements towards our Structure Chart. |

|  |
| --- |
| **Meeting Minutes:** Milestone 7  **Date:** 03/31/2021  **Time:** 2 PM  **Location:** Zoom  **Attendance:** Project Manager, Junfeng Ou, Kyle Haston  **Notes:** In the meeting, we discussed our progress on Milestone 7 so far including the Structure Chart and the CRUD Table. We also discussed our Commercial Software Component. The Project Manager provided feedback and recommended improvements towards our Structure Chart and changes that needed to be made to our CRUD Table based on the modules in our structure chart. |

|  |
| --- |
| **Meeting Minutes:** Milestone 7  **Date:** 04/02/2021  **Time:** 12:15 PM  **Location:** Zoom  **Attendance:** Project Manager, Junfeng Ou, Kyle Haston, Levi Price, and Thadeous Phipps  **Notes:** In the meeting, we discussed our progress on Milestone 7 with the project manager to get some advice on structure chart, CRUD table, and our 4 run sheets. The project manager provided feedback based on the layout of the structure chart and added some run sheet clarification. |