

CS 459: Software Engineering Senior Project

Spring 2025

Detailed Design Documentation

Project Title	HCAR Client Database
Sponsoring Company	Humboldt Community Access and Resource Center
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ABSTRACT

- This Detailed Design Document outlines the key aspects behind design choices made in the development of the HCAR Client Database project.

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1. INTRODUCTION

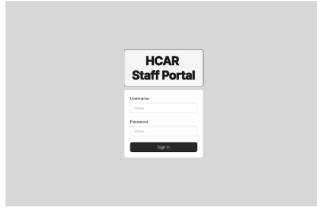
This Detailed Design Document outlines the user interaction with different aspects of the systems associated with this project. Sequences of possible events the user will encounter with the system are included in the dynamic model through various sequence diagrams. The Graphical User Interface (GUI) for this project is categorized through storyboards to explore possible paths that the user can take when navigating the wireframe designs. The classes of the project with their design elements are shown through the static class diagrams included in this document.

Traceability and rationale for decisions made on creating the design for the systems in this project are included in their respective sections of this document, preceding the engineering standards, constraints, and references relevant to this document's material.

2. GUI (Graphical User Interface) Design

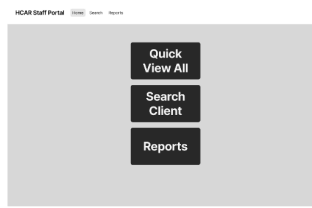
Storyboard 1 - Search / View Clients

Step 1: Log-In



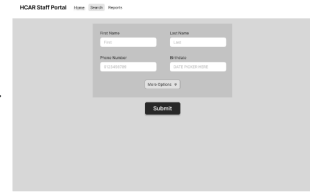
User logs into the portal with their valid username and password

Step 2: Home



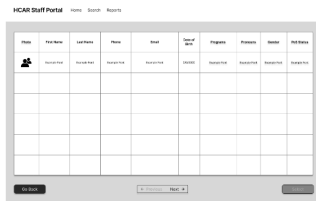
User is brought to the Home page and then clicks on the "Search Client" button

Step 3: Search



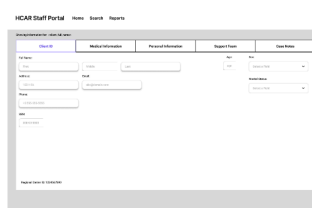
User inputs values to the search fields in the form then selects submit

Step 4: Search Results



User reviews search results, then selects one row in the table and clicks the "Select" button

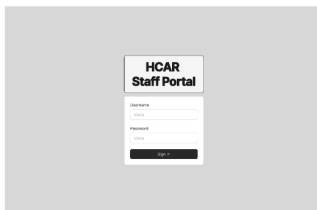
Step 5: View Client



User views client details

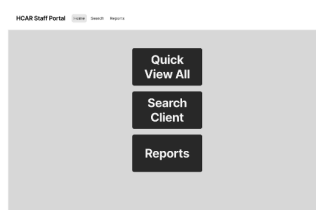
Storyboard 2 - System Reports

Step 1: Log-In



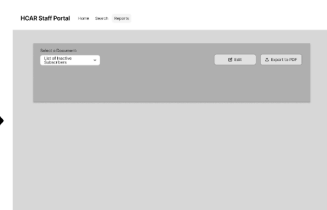
User logs into the portal with their valid username and password

Step 2: Home



User is brought to the Home page and then clicks on the "Reports" button

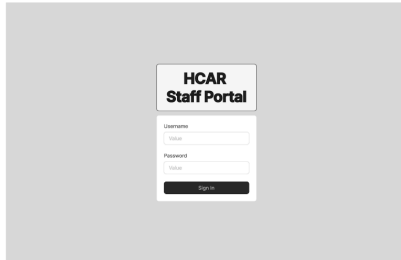
Step 3: Reports



User selects a document from a list in the "Select a Document" dropdown menu pertaining to general information (system, clients with PoS out of date, etc.), and chooses to edit or export the document as a pdf in the browser.

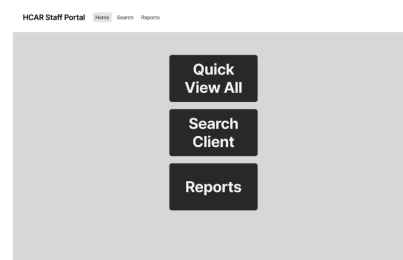
Storyboard 3 - View All Clients

Step 1: Log-In



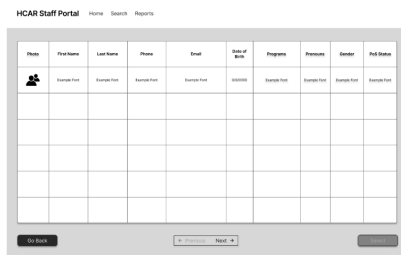
User logs into the portal with their valid username and password

Step 2: Home



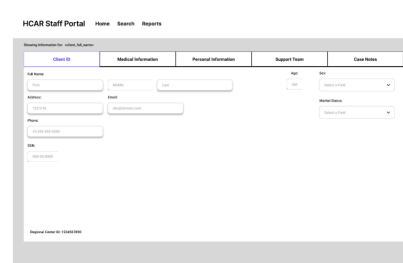
User is brought to the Home page and then clicks on the "Quick View All" button

Step 3: Search Results (All Viewable Clients)



User reviews search results, then optionally selects one row in the table and clicks the "Select" button

(Optional) Step 4: View Client



User views client details

3. STATIC MODEL

CLASS DIAGRAMS

4. DYNAMIC MODEL

SEQUENCE DIAGRAMS

5. RATIONALE FOR YOUR DETAILED DESIGN MODEL

- Design Patterns

6. TRACEABILITY FROM REQUIREMENTS TO DETAILED DESIGN MODEL

- provide a mapping between requirements (user story or use case) and detailed design model (your classes/diagrams)
- clearly describe how each requirement (user story or use case) in the *Requirements Documentation* is captured in the design (your classes/diagrams)

7. EVIDENCE THE DESIGN MODEL HAS BEEN PLACED UNDER CONFIGURATION MANAGEMENT

8. ENGINEERING STANDARDS AND MULTIPLE CONSTRAINTS

- students should work with their project sponsor(s) to identify all the standards and constraints that should be applied for preparing this document

9. ADDITIONAL REFERENCES

- include other related references that are not included the section above