

Use Case Text for Important Use Cases

General Use Cases:

Login:

- **Basic Course:**

- The user clicks the Login button on the Main page. The system displays the Login Screen. The user enters their email address and password, then clicks the Login Button. The system searches the Patient and Provider tables for the user account with the email address and checks the account password.
- The system logs the user into the Patient portal if the user account is from the Patient table.
- The system logs the user into the Provider portal if the user account is from the Provider table.

- **Alternate Courses:**

- Email Not Found: The system displays an error message that the login was unsuccessful.
- Password Incorrect: The system displays an error message that the login was unsuccessful.
- User forgot their password: The user clicks the Forgot Password button. The system displays a field to enter the user's email address. The user enters their email address and clicks the Submit button. The system sends the user an email with their recovery password and displays a message that the email was sent. Then, the system returns to the Login Screen.
- User doesn't have an account: The user clicks the Create an Account button (Sign Up). The system displays the Create Account Screen. The user can enter their desired account information, including their name, email, phone number, and password, then presses the Create button. The system shows a response message and displays the Login Screen.

Patient Use Cases:

Enter Patient Entry Information:

- **Basic Course:**
 - The user clicks the Enter Patient Information button. The system displays the Enter Patient Entry page. The user can click on one of four buttons: the Phantom Limb Pain Scale button, the Residual Limb Pain Scale button, the Socket Comfort Score button, or the Plus M button.
 - For the Phantom Limb Pain Scale button, the Residual Limb Pain Scale button, and the Socket Comfort Score button, the system displays a description/prompt and a 0-10 scale. The user selects a value from 0 to 10 and clicks the Submit button. The system shows a confirmation message and displays the Enter Patient Entry page.
 - For the Plus M button, the system displays the Plus M entry pdf document. The user enters all relevant data and clicks the Submit button. The system shows a confirmation message and displays the Enter Patient Entry page.
 - The user clicks the Submit button on the Enter Patient Entry page. The system adds the entered information into an entry of the “Patient Entries” table, shows a confirmation message, and displays the Main page.
- **Alternate Courses:**
 - The user has already input data for the week: The system shows the previously input results above each corresponding button and a warning that any new inputs will override the previous ones. The user can click on any button to enter the information as normal. After, the user clicks the Submit button on the Enter Patient Entry page. The system updates the pre-existing entry in the “Patient Entries” table for the current week, shows a confirmation message, and displays the Main page.
 - The user did not select/enter all necessary fields: The user clicks Submit on one of the value pages. The system shows an error message that no data was saved and displays the Enter Patient Entry page.
 - The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.

View Step Information:

- **Basic Course:**
 - The user clicks the button for the corresponding step: Postsurgical Stabilization (PS), Pre-prosthetic Rehabilitation (PPR), Limb Healing & Maturation (LHM), Prosthetic Fitting (PF), and Prosthetic Rehabilitation (PR). The system displays the corresponding page, which includes a brief

description of the step, a list of links to relevant sources, the user's next appointment information, the View Appointment button, and the Enter Patient Information button.

- The user can click the View Appointment button and the system displays the View Appointment page.
- The user can click the Enter Patient Information button and the system displays the Enter Patient Entry page.
- **Alternate Courses:**
 - There is no next appointment for the step: The user clicks the View Appointment button. The system shows an error message that there is no next appointment for this step on the current page.
 - The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
 - The user is passed the current step page: The system will display the View Patient Entry Information button instead of the Enter Patient Information button. The user can click the View Patient Entry Information button and the system displays the View Patient Entries page.

Authorize Provider Access:

- **Basic Course:**
 - The user clicks the Authorize Provider Access button. The system displays the Authorize Provider screen and a message that this will allow the provider to read and write their data from their Patient, Provider, and Sensor entries. The user enters the ID of the provider and clicks the Submit button. The system checks the Providers table for the ID and grants the corresponding provider the authority to access patient data and enter Provider Entries. The system shows a confirmation message and displays the Main page.
- **Alternate Course:**
 - Invalid Provider ID: The user enters the ID of the provider and clicks the Submit button. The system shows an error message that there is no such ID and displays the Main page.
 - The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
 - Provider Already Authorized: The user enters the ID of the provider and clicks the Submit button. The system shows an error message that the provider with the given ID already has authorization and displays the Main page.

Enter/Submit Sensor Information:

- **Basic Course:**

- The user clicks the Submit Sensor Information button. The system connects to the Sensor and pulls the data from the last data, processes it, and stores the values as an entry in the Sensor Entries table. The system shows a confirmation message and displays the View Sensor Information page.

- **Alternative Course:**

- The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
- The sensor is not connected: The user clicks the Submit Sensor Information button. The system shows an error message that the Sensor is not connected and displays the Sensor Connection page, which includes information on how to connect the Sensor and a feedback message about whether the Sensor is currently connected. The user follows the steps to connect the Sensor to the system through Bluetooth. The system connects to the Sensor, shows a confirmation message, and displays the View Sensor Information page.
- The daily sensor data has already been submitted: The user clicks the Submit Sensor Information button. The system connects to the Sensor and pulls the data from the last data, processes it, and updates the values of the current date's entry in the Sensor Entries table. The system shows a confirmation message and displays the View Sensor Information page.

Provider Use Cases:

Schedule Appointment:

- **Basic Course:**
 - The user clicks on the Schedule Appointment button for the specific patient of the View Patient Information page. The system displays the Schedule Appointment page and the patient's name and ID for whom the appointment will be scheduled. The user enters the appointment type, appointment date and time, location, and any additional Provider IDs associated with the appointment, then clicks the Submit button. The system creates an entry in the Appointments table with the relevant information. The system checks that each additional provider has an account in the Provider's table and creates entries in the Team Members table for all providers related to the appointment. Then the system shows a confirmation message and displays the Main page.
- **Alternative Course:**
 - The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
 - Incomplete Information Entered: The user clicks the Submit button with some information missing. The system shows an error message stating the incomplete message and displays the Schedule Appointment Page.
 - Invalid Provider IDs: The user enters one or more additional Provider IDs and clicks the Submit button. The system fails to find one or more of the additional Provider IDs. The system shows an error message of which Provider IDs are invalid and displays the Schedule Appointment Page.

Enter Provider Entry Information:

- **Basic Course:**
 - The user clicks the Enter Provider Information button. The system displays the Enter Provider Entry page. The user can click on one of four buttons: the AmpNoPro button, the AmpPro button, the Timed Up and Go Test button, and the 6-minute Walk Test button.
 - For each button, the system displays the corresponding page which includes a description/prompt of the test and a field to enter the value. The user enters the value for the test and clicks the Submit Button. The system shows a confirmation message and displays the Enter Provider Entry page.

- The user clicks the Submit button on the Enter Provider Entry page. The system adds the entered information into an entry of the “Provider Entries” table, shows a confirmation message, and displays the Main page.
- **Alternative Course:**
 - The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
 - The user did not select/enter all necessary fields for a test: The user clicks the Submit button on one of the test pages. The system shows an error message that no data was saved and displays the Enter Provider Entry page.
 - The user did not select/enter all necessary fields for the whole entry: The user clicks the Submit button on the Enter Provider Entry page. The system shows an error message of which tests were not given values and displays the Enter Provider Entry page.

View Patient Entry Information:

- **Basic Course:**
 - The user clicks the View Patient Entries button on the View Patient Information page. The system displays the View Patient Entries page for the patient corresponding to the previous page, which includes four buttons: the Phantom Limb Pain Scale button, the Residual Limb Pain Scale button, the Socket Comfort Score button, or the Plus M button. The user clicks one of the four buttons. The system obtains the entries from the last month from the “Patient Entries” table. The system displays the corresponding page with a graph of the obtained patient entries. The system displays buttons to change the time scale: Last Month, Last 2 Months, Last 3 Months, Last 6 Months, Last Year, and Last 2 Years. The user clicks one of the time scale buttons (change data viewing timescale). The system re-obtains the entries from the corresponding time scale from the “Patient Entries” table. The system displays the page with a graph of the obtained patient entries of the chosen time scale.
- **Alternative Course:**
 - The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
 - Time scale greater than oldest entry: The user clicks one of the time scale buttons. The system obtains the entries from the corresponding time scale from the “Patient Entries” table. The system displays the page with a

graph of the obtained patient entries of the chosen time scale truncated to the earliest entry.

Notify Patient of Appointment:

- **Basic Course:**

- The user clicks the Notify Patient button corresponding to a specific Appointment on the View Appointments page. The system obtains the start date from the Appointments table for the corresponding appointment. The system generates a message with how long until the start of the appointment. The system sends the message an email, text message, and/or push notification to the patient with the selected appointment. The system shows a confirmation message and displays the View Appointments page.

- **Alternative Course:**

- The user is not logged in: The system shows an error message that the user is not logged in and displays the Login screen. After the user logs in, the system displays the Main page.
- The system failed to send the notification: The system will show an error message that something went wrong and for the user to try again. The system displays the View Appointments page.
- The appointment is in the past: The system obtains the start date from the Appointments table for the corresponding appointment. The system shows an error message that the appointment has already occurred and displays the View Appointments page.