

## User Management & Access Control

### UC01 – Register Account

Item	Description
<b>Use Case ID</b>	UC01
<b>Use Case Name</b>	Register Account
<b>Primary Actor</b>	User
<b>Goal</b>	Allow a new user to create an account using email and password.
<b>Preconditions</b>	1. The user has not registered before. 2. Users can access the registration page.
<b>Postconditions</b>	<b>Success:</b> New account is created. <b>Failure:</b> No account is created; error message displayed.
<b>Main Flow</b>	1. The user opens the Registration Page. 2. The system displays the registration form. 3. The user enters email, password, and optional name. 4. The user submits the form. 5. The system validates all required fields. 6. The system checks if the email is already registered. 7. The system encrypts the password. 8. The system creates the new account. 9. The system shows success confirmation.
<b>Alternative Flows</b>	A1 – Invalid Email Format: System rejects with message “Invalid email format.” A2 – Weak Password: System requests a stronger password. A3 – Email Already Exists: System shows “This email is already registered.” A4 – Missing Required Fields: System prompts user to complete required fields.

## UC02 – Log In

Item	Description
<b>Use Case ID</b>	UC02
<b>Use Case Name</b>	Log In
<b>Primary Actor</b>	User
<b>Goal</b>	Allow a registered user to log into the system.
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>1. The user has an existing account.</li> <li>2. Users can access the login page.</li> </ul>
<b>Postconditions</b>	<p><b>Success:</b> User is authenticated and logged in.</p> <p><b>Failure:</b> User remains logged out; system shows error message.</p>
<b>Main Flow</b>	<ul style="list-style-type: none"> <li>1. The user opens the Login Page.</li> <li>2. The system displays login form.</li> <li>3. The user enters an email and password.</li> <li>4. The user submits the form.</li> <li>5. System validates input format.</li> <li>6. System verifies credentials against stored data.</li> <li>7. The system creates a login session.</li> <li>8. The system redirects the user to the dashboard/home page.</li> </ul>
<b>Alternative Flows</b>	<p>A1 – Incorrect Password: System shows “Incorrect email or password.”</p> <p>A2 – Unregistered Email: System shows “Account does not exist.”</p> <p>A3 – Account Locked: System shows “Your account is locked. Contact support.”</p> <p>A4 – Missing Fields: System prompts user to fill required fields.</p>

## **UC03 – Log Out**

Item	Description
<b>Use Case ID</b>	UC03
<b>Use Case Name</b>	Log Out
<b>Primary Actor</b>	User
<b>Goal</b>	Allow the user to securely end their current session.
<b>Preconditions</b>	1. The user is logged in.
<b>Postconditions</b>	Success: User session is terminated. Failure: No changes occur if logout fails (e.g., network error).
<b>Main Flow</b>	1. The user selects the “Log Out” option. 2. System requests confirmation (optional). 3. User confirms logout. 4. The system clears the user session/token. 5. System redirects to the login page.
<b>Alternative Flows</b>	A1 – Cancel Logout: User cancels logout; stays logged in. A2 – Session Timeout: System auto-logs out after inactivity.

## UC04 – Manage User Profile

Item	Description
<b>Use Case ID</b>	UC04
<b>Use Case Name</b>	Manage User Profile
<b>Primary Actor</b>	User
<b>Goal</b>	Allow users to update their personal information such as name, profile photo, or email.
<b>Preconditions</b>	1. The user is logged in.
<b>Postconditions</b>	<b>Success:</b> User profile is updated. <b>Failure:</b> Profile remains unchanged.
<b>Main Flow</b>	1. User navigates to Profile Settings. 2. The system displays current user information. 3. User edits fields (name, email, photo). 4. The user saves changes. 5. The system validates new data. 6. System updates user profile. 7. The system displays a success message.
<b>Alternative Flows</b>	A1 – Invalid Email Format: System rejects and shows an error. A2 – Missing Required Fields: System prompts user to complete them. A3 – Upload Error: System shows image upload failure message.

## UC05 – Manage User Roles & Authorization

Item	Description
<b>Use Case ID</b>	UC05
<b>Use Case Name</b>	Manage User Roles & Authorization
<b>Primary Actor</b>	Admin
<b>Goal</b>	Allow Admin to assign or update a user's role and enforce access permissions.
<b>Preconditions</b>	1. Admin is logged in. 2. Target user account exists.
<b>Postconditions</b>	Success: User's role is updated. Failure: No changes are applied.
<b>Main Flow</b>	1. Admin opens the User Management page. 2. The system lists all users. 3. Admin selects a user. 4. Admin chooses a new role (Parent, Caregiver, Doctor, Admin). 5. System validates role assignment. 6. System updates user role. 7. The system displays a success message.
<b>Alternative Flows</b>	<b>A1 – Invalid Role:</b> System rejects selection. <b>A2 – Unauthorized Admin:</b> System denies action.

## **Child Profile Management**

### **UC06 – Create Child Profile**

<b>Item</b>	<b>Description</b>
<b>Use Case ID</b>	UC06
<b>Use Case Name</b>	Create Child Profile
<b>Primary Actor</b>	Parent
<b>Goal</b>	Allow parents to create a new child profile with basic information.
<b>Preconditions</b>	1. My parents are logged in.
<b>Postconditions</b>	Success: Child profile is created. Failure: No profile is added.
<b>Main Flow</b>	1. Parent navigates to “Add Child Profile.” 2. The system displays the creation form. 3. Parents enter name, gender, birthdate, preterm status, and optional photo. 4. The parent saves the profile. 5. The system validates data. 6. The system creates the profile. 7. The system confirms creation.
<b>Alternative Flows</b>	A1 – Missing Required Fields: System prompts completion. A2 – Invalid Birthdate: System displays error.

## UC07 – View Child Profile

Item	Description
<b>Use Case ID</b>	UC07
<b>Use Case Name</b>	View Child Profile
<b>Primary Actor</b>	Parent / Caregiver
<b>Goal</b>	View complete child information and growth history.
<b>Preconditions</b>	1. The user is logged in. 2. Child profiles exist.
<b>Postconditions</b>	None. The user only views information.
<b>Main Flow</b>	1. The user selects a child profile. 2. System retrieves profile details. 3. The system displays personal info and growth history.
<b>Alternative Flows</b>	<b>A1 – No Access Permission:</b> System denies access. <b>A2 – Child Profile Deleted/Inactive:</b> System shows error.

## **UC08 – Update Child Profile**

Item	Description
<b>Use Case ID</b>	UC08
<b>Use Case Name</b>	Update Child Profile
<b>Primary Actor</b>	Parent
<b>Goal</b>	Allow parents to update child profile information.
<b>Preconditions</b>	1. Parents are logged in. 2. Child profiles exist.
<b>Postconditions</b>	Success: Profile is updated. Failure: No changes applied.
<b>Main Flow</b>	1. The parent opens a child profile. 2. The parent selects “Edit Profile.” 3. The system displays an editable form. 4. Parent updates information. 5. Parents save changes. 6. The system validates data. 7. System updates profile.
<b>Alternative Flows</b>	A1 – Invalid Data: System rejects and shows error.

## UC09 – Deactivate Child Profile

Item	Description
<b>Use Case ID</b>	UC09
<b>Use Case Name</b>	Deactivate Child Profile
<b>Primary Actor</b>	Parent
<b>Goal</b>	Allow parents to deactivate a child profile that is no longer needed.
<b>Preconditions</b>	1. Parent is logged in.
<b>Postconditions</b>	<b>Success:</b> Child profile is deactivated. <b>Failure:</b> Profile remains active.
<b>Main Flow</b>	1. Parent selects a child profile. 2. Parent selects “Deactivate Profile.” 3. System shows confirmation message. 4. Parent confirms. 5. System deactivates the profile. 6. System shows success message.
<b>Alternative Flows</b>	<b>A1 – Cancellation:</b> Parent cancels and no changes occur.

## Growth Measurement Recording

### UC10 – Add Growth Measurement

Item	Description
<b>Use Case ID</b>	UC10
<b>Use Case Name</b>	Add Growth Measurement
<b>Primary Actor</b>	Parent / Caregiver
<b>Goal</b>	Allow users to enter new growth measurements for a child.
<b>Preconditions</b>	1. The user is authorized to update measurements. 2. Child profiles exist.
<b>Postconditions</b>	<b>Success: Measurement is stored.</b> <b>Failure: No new data stored.</b>
<b>Main Flow</b>	1. The user opens a child profile. 2. The user navigates to “Add Measurement.” 3. The system displays measurement form. 4. The user enters weight, height, head circumference, and date. 5. The system validates all inputs. 6. The system stores measurement. 7. The system auto-calculates BMI and age. 8. The system displays confirmation.
<b>Alternative Flows</b>	A1 – Invalid Data: System rejects incorrect values. A2 – Missing Required Fields: System prompts completion.

## **UC11 – Edit Measurement**

Item	Description
<b>Use Case ID</b>	UC11
<b>Use Case Name</b>	Edit Measurement
<b>Primary Actor</b>	Parent / Caregiver
<b>Goal</b>	Allow users to correct or update existing measurement data.
<b>Preconditions</b>	1. Measurement records exist.
<b>Postconditions</b>	Success: Measurement updated. Failure: Old data remains unchanged.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. The user selects a measurement entry.</li><li>2. The system displays measurement details.</li><li>3. Users edit values.</li><li>4. The user saves changes.</li><li>5. The system validates data.</li><li>6. System updates measurement.</li></ol>
<b>Alternative Flows</b>	A1 – Invalid Inputs: System rejects update request.

## UC12 – Delete Measurement

Item	Description
<b>Use Case ID</b>	UC12
<b>Use Case Name</b>	Delete Measurement
<b>Primary Actor</b>	Parent / Caregiver
<b>Goal</b>	Allow users to delete a measurement entry that is incorrect or unnecessary.
<b>Preconditions</b>	1. Measurement exists.
<b>Postconditions</b>	<b>Success:</b> Measurement deleted. <b>Failure:</b> No changes occur.
<b>Main Flow</b>	1. User selects a measurement. 2. User selects “Delete.” 3. System asks for confirmation. 4. User confirms deletion. 5. System deletes measurement. 6. System displays confirmation.
<b>Alternative Flows</b>	<b>A1 – Cancel Deletion:</b> System cancels the process.

## **UC13 – Auto Calculate BMI & Measurement Age**

Item	Description
<b>Use Case ID</b>	UC13
<b>Use Case Name</b>	Auto Calculate BMI & Measurement Age
<b>Primary Actor</b>	System
<b>Goal</b>	Automatically compute BMI and age whenever a measurement is added or updated.
<b>Preconditions</b>	1. Valid measurement data exists.
<b>Postconditions</b>	<b>Success:</b> BMI and age values are saved.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. User adds or updates a measurement.</li><li>2. System checks if height/weight exist.</li><li>3. System calculates BMI.</li><li>4. System calculates age at measurement date (corrected if preterm).</li><li>5. System updates measurement record.</li></ol>
<b>Alternative Flows</b>	<b>A1 – Missing Required Data:</b> System cannot calculate BMI.

## UC14 – View Growth Charts

Item	Description
<b>Use Case ID</b>	UC14
<b>Use Case Name</b>	View Growth Charts
<b>Primary Actor</b>	Parent / Caregiver / Doctor
<b>Goal</b>	Allow users to visualize growth charts (weight/height/BMI).
<b>Preconditions</b>	1. Child profile and measurements exist.
<b>Postconditions</b>	None.
<b>Main Flow</b>	1. User opens child profile. 2. User selects Growth Charts. 3. System retrieves measurement data. 4. System draws charts. 5. System displays charts.
<b>Alternative Flows</b>	<b>A1 – No Data:</b> System displays “No measurement data available.”

## **UC15 – Display Percentile Position**

Item	Description
<b>Use Case ID</b>	UC15
<b>Use Case Name</b>	Display Percentile Position
<b>Primary Actor</b>	System
<b>Goal</b>	Show child's percentile based on selected growth standard.
<b>Preconditions</b>	1. Measurement exists. 2. Growth standard selected.
<b>Postconditions</b>	Percentile values displayed.
<b>Main Flow</b>	1. System retrieves measurement and age. 2. System retrieves corresponding percentile table. 3. System computes percentile. 4. System displays percentile and growth zone.
<b>Alternative Flows</b>	<b>A1 – Missing Standard:</b> System uses default standard (e.g., WHO).

## **UC16 – Select Growth Standard**

Item	Description
<b>Use Case ID</b>	UC16
<b>Use Case Name</b>	Select Growth Standard
<b>Primary Actor</b>	Admin / System
<b>Goal</b>	Select which growth reference dataset (WHO/CDC) to use.
<b>Preconditions</b>	Growth standard data is available.
<b>Postconditions</b>	Selected standard is applied to all percentile calculations.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. Admin opens Growth Standard Settings.</li><li>2. System displays available standards.</li><li>3. Admin selects desired standard.</li><li>4. System validates dataset.</li><li>5. System applies new standard.</li></ol>
<b>Alternative Flows</b>	<b>A1 – Invalid Standard File:</b> System rejects update.

## **UC17 – Configure Measurement Reminders**

Item	Description
<b>Use Case ID</b>	UC17
<b>Use Case Name</b>	Configure Measurement Reminders
<b>Primary Actor</b>	Parent
<b>Goal</b>	Allow parents to set regular reminder schedules.
<b>Preconditions</b>	1. Child profile exists.
<b>Postconditions</b>	Reminder schedule saved.
<b>Main Flow</b>	1. Parent opens reminder settings. 2. System displays reminder options. 3. Parent selects frequency (monthly, quarterly...). 4. Parent saves configuration. 5. System stores schedule.
<b>Alternative Flows</b>	<b>A1 – Invalid Frequency:</b> System rejects configuration.

## **UC18 – Receive Measurement Notifications**

Item	Description
<b>Use Case ID</b>	UC18
<b>Use Case Name</b>	Receive Measurement Notifications
<b>Primary Actor</b>	System
<b>Goal</b>	Notify parents when it is time to record new measurements.
<b>Preconditions</b>	1. Reminder schedule exists.
<b>Postconditions</b>	Notification delivered.
<b>Main Flow</b>	1. Reminder date/time is reached. 2. System generates notification. 3. System sends in-app notification or email.
<b>Alternative Flows</b>	<b>A1 – Notification Delivery Failure:</b> System retries.

## **UC19 – Generate Growth Report**

Item	Description
<b>Use Case ID</b>	UC19
<b>Use Case Name</b>	Generate Growth Report
<b>Primary Actor</b>	Parent
<b>Goal</b>	Create a report for a selected date range.
<b>Preconditions</b>	1. Measurement data exists.
<b>Postconditions</b>	Report file is generated.
<b>Main Flow</b>	1. Parent opens “Generate Report.” 2. System shows report options. 3. Parent selects date range and format (PDF/CSV/image). 4. System retrieves data. 5. System generates report. 6. System prepares file for download.
<b>Alternative Flows</b>	<b>A1 – Empty Date Range:</b> System shows error.

## **UC20 – Download Report**

Item	Description
<b>Use Case ID</b>	UC20
<b>Use Case Name</b>	Download Report
<b>Primary Actor</b>	Parent / Doctor
<b>Goal</b>	Allow users to download generated reports.
<b>Preconditions</b>	1. Report exists.
<b>Postconditions</b>	Report is downloaded.
<b>Main Flow</b>	1. User opens report page. 2. User selects “Download.” 3. System delivers file.
<b>Alternative Flows</b>	<b>A1 – File Missing:</b> System regenerates file.

## **UC21 – Share Report**

Item	Description
<b>Use Case ID</b>	UC21
<b>Use Case Name</b>	Share Report
<b>Primary Actor</b>	Parent
<b>Goal</b>	Allow parents to share the report with doctors or caregivers.
<b>Preconditions</b>	Report exists.
<b>Postconditions</b>	Report shared successfully.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. Parent selects “Share Report.”</li><li>2. System provides sharing options (email/link).</li><li>3. Parent enters recipient info.</li><li>4. System sends report.</li><li>5. System shows confirmation.</li></ol>
<b>Alternative Flows</b>	<b>A1 – Invalid Email:</b> System rejects input.

## **UC22 – Manage User Accounts**

Item	Description
<b>Use Case ID</b>	UC22
<b>Use Case Name</b>	Manage User Accounts
<b>Primary Actor</b>	Admin
<b>Goal</b>	Admin manages user accounts (lock, unlock, reset password).
<b>Preconditions</b>	Admin logged in.
<b>Postconditions</b>	Account actions applied.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. Admin opens User Management.</li><li>2. System lists all users.</li><li>3. Admin selects an account.</li><li>4. Admin chooses an action (lock, unlock, reset password).</li><li>5. System updates account.</li></ol>
<b>Alternative Flows</b>	<b>A1 – Unauthorized Admin:</b> System denies access.

## **UC23 – Configure Growth Standards**

<b>Item</b>	<b>Description</b>
<b>Use Case ID</b>	UC23
<b>Use Case Name</b>	Configure Growth Standards
<b>Primary Actor</b>	Admin
<b>Goal</b>	Allow Admin to update or upload growth reference data.
<b>Preconditions</b>	Standard datasets available.
<b>Postconditions</b>	New standard applied.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. Admin opens Growth Standards screen.</li><li>2. Admin uploads or selects dataset.</li><li>3. System validates dataset.</li><li>4. System updates configuration.</li></ol>
<b>Alternative Flows</b>	<b>A1 – Invalid File Format:</b> System rejects update.

## **UC24 – Monitor System Operations**

Item	Description
<b>Use Case ID</b>	UC24
<b>Use Case Name</b>	Monitor System Operations
<b>Primary Actor</b>	Admin
<b>Goal</b>	Allow Admin to review system logs and performance.
<b>Preconditions</b>	Admin logged in.
<b>Postconditions</b>	None.
<b>Main Flow</b>	<ol style="list-style-type: none"><li>1. Admin opens Monitoring Dashboard.</li><li>2. System retrieves logs and statistics.</li><li>3. System displays system performance data.</li></ol>
<b>Alternative Flows</b>	<b>A1 – No Logs Available:</b> System displays empty state message.