Project Requirements Report

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List of user requirements.

1.Functional requirements.

R2- Mother Profile Management

R2.1 The mother user can enter and update her personal information (name, age, current pregnancy week, last menstrual period date, previous delivery type).

R2.2 Add her medical history **for following her health.**

R3- Baby Profile Management

R3.1 The mother can create and manage a profile for her baby.

R3.1.1 The mother shall add information about her baby like name, gender, date of birth, birth weight, and length. **Supports multiple children.**

R4- Doctor Profile Management

R4.1 Doctors can create and update their profiles with details such as specialization, experience, and available working hours for consultation.

R5- Pregnancy Month Information

R5.1 The system shall be able to follows up the pregnancy state**.**

R5.1.1 The for each of the nine pregnancy months would show: Common symptoms, physical and emotional changes, and required medical tests.

R6- Dietary guidance.

R6.1 The system shall inform mothers about forbidden items with the need to guide on recommended nutrition.

R6.1.1 The system will dynamically display a **clear, filterable list** of foods and drinks that are unsafe or prohibited for the user's current stage of pregnancy. **Each item will be accompanied by a brief explanation** of *why* it is forbidden (e.g., "High Mercury Content," "Risk of Listeria").

R6.1.2 The system will display **daily and weekly nutrition advice**, including key nutrients to focus on (e.g., iron, folate, Omega-3s) for the current stage. This will be presented as a recommended, balanced **diet plan** or meal suggestion guide.

R6.1.3 The content will be organized into two main sections within a dedicated "Nutrition" feature: **"What to Avoid"** (the forbidden list) and **"What to Eat"** (the recommended guidance).

R7- Cosmetic Product Warnings

R7.1 The system shall inform what is the cosmetics and skin products that she can't use.

R7.1.1 Lists unsafe cosmetic and skincare products during pregnancy (e.g., hair dyes, whitening creams, perfumes with alcohol) and why she can't use them.

R7.1.2 The system shall recommend safe products or alternatives.

R8- Medication Follow-up

R8.1 The system shall inform mothers about forbidden and allowed medications and recommend alternatives.

R8.1.1 The system shall display a list of medications that are **safe, questionable, or unsafe** for the mother's current month of pregnancy, based on established medical guidelines.

R8.1.2 The system shall recommend safe medicines or natural alternatives for each pregnancy month.

R8.1.3 The system shall allow searching by drug name.

R9- Doctor Consultation Service

R9.1 Allows mothers to book an appointment online with a doctor or to ask questions to doctors.

R9.1.1 The system shall allow mothers to choose the doctor's gender.

R9.1.2 The system shall provide a channel where mother and doctor can have conversations.

R10- Depression Awareness

R10.1 The system shall allow user to have a depression Self-Assessment test.

R10.1.1 The system will provide educational information about prenatal and postnatal depression, including symptoms, prevention tips, and psychological support methods.

R11- Exercise Recommendations

R11.1 The System shall suggest safe exercises for each pregnancy stage (e.g., prenatal yoga,

walking, breathing exercises) ,facilitate childbirth and restore the body's nature.
R11.1.1 The System shall suggest safe exercises to facilitate childbirth.
R11.1.2 The System shall suggest safe exercises to restore the body to its natural state after pregnancy and hide stretch marks.

R12- Labor Type Comparison (Natural vs. Cesarean)
R12.1 The system shall help to raise awareness about labor Types (advantages and disadvantages of each one of them).
R12.1.1 The System shall display a detailed comparison between natural and cesarean delivery, including the process, advantages/disadvantages, recovery time, possible complications, and pain levels.

R13- Emergency Contact Feature
R13.1 Allows mothers to quickly contact their doctor or hospital during emergencies.
R13.1.1The system via one-click calling or messaging can call emergency.

R13.1.2 The System shall insure doctor availability by sending alarm to hospitals and doctors assistants.

R14- Data Privacy and Security
R14.1 All user data shall be securely encrypted and not shared.
R14.1.1

R15-Feedback and Rating System
R15.1 Users can rate doctors, consultations, and the overall app experience, and submit improvement suggestions.
R17- Personalized Dashboard
R17.1 System shall display an interactive dashboard showing pregnancy progress, current week, expected symptoms, and reminders.

R18- Message System
R18.1 System shall allow mothers to ask doctors.
R18.1.1 System shall secure chat features between mothers and doctors during consultations or continuous follow-up.
R19-Baby vaccination Management
R19.1 The system shall track the baby's vaccination schedule, sends reminders before each dose.
R19.2 The system shall allow mothers to record completed vaccinations.

R18- Breastfeeding Management
R18.1 The mother can track and manage breastfeeding sessions.

R18.1.1 The system shall track duration, frequency, and side used (left/right).
R18.1.2 The system can also provide reminders and helpful breastfeeding tips.

R19- Family Planning Management
R19.1 The system allows the mother to learn about and manage family planning methods.
R19.1.1 The system will provide information on different contraceptive options, their effectiveness, possible side effects, and reminders for appointments.

R20-Mother Vaccination Follow-up
R20.1 The system allows the mother to record, track, and receive reminders about her prescribed medications and vaccination schedule.
R20.1.1 The system will also provide dosage instructions and alerts for upcoming or missed doses.

R21-AI Chatbot for Instant Support
R21.1 The system shall provide an AI-powered chatbot for instant, user support and information retrieval.
R21.1.1 The chatbot must be trained on all app content, including foods, cosmetics, medications, symptoms, and exercises.

R22-Tandem Nursing and Pregnancy Breastfeeding Support
R22.1 The system shall provide specialized guidance and tools for managing Tandem Nursing and breastfeeding during pregnancy.
R22.1.1 The system must display detailed, evidence-based guidelines on the safety of breastfeeding while pregnant, clearly outlining warning signs (e.g., uterine contractions, bleeding) that require immediate medical consultation.
R22.1.2 The system shall provide customized nutritional advice for mothers who are pregnant and breastfeeding, focusing on increased caloric and nutrient requirements.
R22.1.3 The system must include information on the **changes to breast milk** during pregnancy (e.g., shift back to colostrum) and tips for managing potential aversion or the older child's refusal due to taste changes.

R23-Chronic and Gestational Health Management
R23.1 The system shall provide dedicated tools for managing and monitoring chronic and gestational health conditions (e.g., Gestational Diabetes and hypertension).
R23.1.1 The system must allow the mother to regularly log **blood sugar readings** (pre- and post-meals) and **blood pressure levels**.
R23.1.2 The system shall analyze the logged data () and issue **immediate alerts** if readings exceed recommended safe thresholds, instructing the mother to contact her doctor.

R24-Allerts and notification to ensure successful tracking

R24.1 The system shall implement a comprehensive, personalized notification system to prompt necessary user actions and ensure successful health tracking.

R24.1.1 The system shall send **proactive, context-aware reminders** for mothers.

R25-Payment and subscription methods

R25.1 The system shall implement secure, reliable, and user-friendly payment and subscription mechanisms to facilitate financial transactions.

R25.1.1 The system must integrate with at least two major, certified payment gateways (e.g., Stripe, PayPal, or local providers) to process transactions securely.

2.Non- functional requirements.

R1- User Authentication and Access Control

R1.1 The system shall allow users (mothers and doctors) to register (Sign Up) and log in (Login).

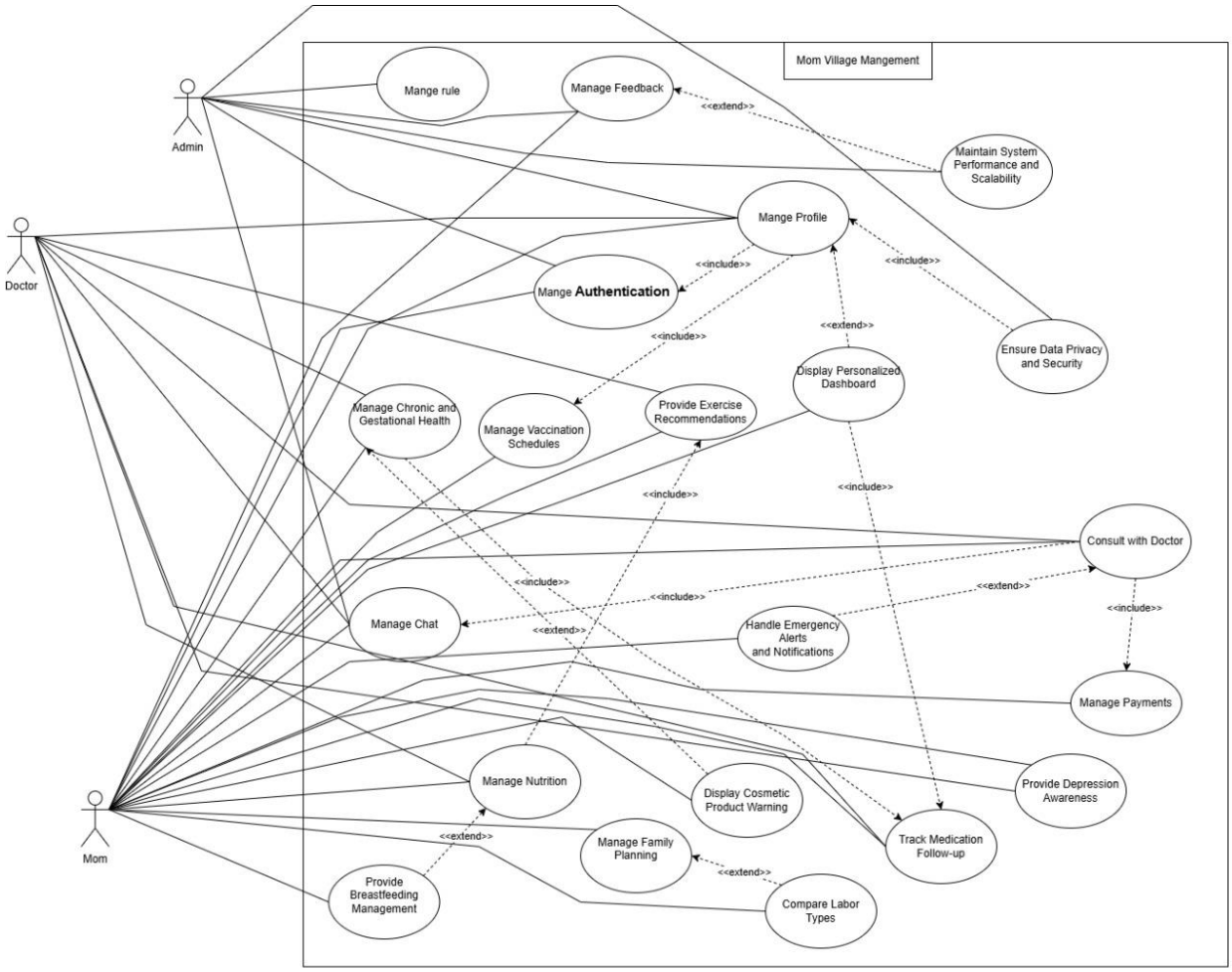
R1.1.1 Users can select their account type (Mother _Female Doctor, Male Doctors).

R1.1.2 The system shall make this securely using encrypted passwords and Gmail.

R16- Performance and Scalability

R16.1 The system shall maintain fast response times and handle a large number of concurrent users efficiently.

Structured system use-cases



3. Name of use cases & Actors:

- **Use cases:**
  - **Manage Authentication**
  - **Manage Profile**
  - **Manage Rule**
  - **Manage Feedback**

- **Maintain System Performance and Scalability**
- **Ensure Data Privacy and Security**
- **Display Personalized Dashboard**
- **Manage Chronic and Gestational Health**
- **Manage Vaccination Schedules**
- **Provide Exercise Recommendations**
- **Manage Chat**
- **Handle Emergency Alerts and Notifications**
- **Consult with Doctor**
- **Manage Payments**
- **Provide Depression Awareness**
- **Track Medication Follow-up**
- **Manage Nutrition**
- **Manage Family Planning**
- **Provide Breastfeeding Management**
- **Compare Labor Types**
- **Display Cosmetic Product Warning**

- **Actors:**
  - **Mom**
  - **Doctor**
  - **Admin**

4. Relation type between use cases:

Relation Type	Primary Use Case	Secondary Use Case
<<include>>	**Manage Authentication**	Manage Profile
<<include>>	**Manage Profile**	Display Personalized Dashboard
<<include>>	**Display Personalized Dashboard**	Manage Vaccination Schedules
<<include>>	**Display Personalized Dashboard**	Provide Exercise Recommendations
<<include>>	**Display Personalized Dashboard**	Handle Emergency Alerts and Notifications
<<include>>	**Consult with Doctor**	Manage Payments

<<include>>	**Manage Chat**	Handle Emergency Alerts and Notifications
<<extend>>	Manage Feedback	Manage Profile
<<extend>>	Manage Rule	Manage Profile
<<extend>>	Maintain System Performance and Scalability	Display Personalized Dashboard
<<extend>>	Provide Breastfeeding Management	Manage Nutrition
<<extend>>	Manage Family Planning	Compare Labor Types
<<extend>>	Track Medication Follow-up	Provide Depression Awareness
<<extend>>	Consult with Doctor	Manage Payments

Initial Identified Subsystems

Subsystem Name	**Subsystem Function**	**Subsystem Interface**
1. User Authentication	**1.1 registerUser:** Allows mothers and doctors to sign up with encrypted credentials. **1.2 loginUser:** Authenticates users securely using username and password. **1.3 logoutUser:** Ends active session and clears tokens. **1.4 resetPassword:** Enables users to reset forgotten passwords securely. **1.5 R14.1 ensureDataSecurity:** Implements secure data encryption for all user information.	interface AuthSystem { void registerUser(UserData data); boolean loginUser(String email, String password); void logoutUser(String userId); void resetPassword(String email); }

2. Profile Management	**2.1 createMotherProfile:** Allows mothers to input personal and pregnancy-related information. **2.2 updateMotherProfile:** Enables editing profile details and medical history. **2.3 deleteMotherProfile:** Deletes the profile and related data. **2.4 viewMotherProfile:** Displays the complete mother profile.	interface IMotherProfile { void createMotherProfile(); void updateMotherProfile(ProfileData data); void deleteMotherProfile(); Mother viewMotherProfile(String motherId); }
3. Nutrition	**5.1 getNutritionPlan:** Provides personalized meal plans by pregnancy stage. **5.2 viewDailyTips:** Displays healthy diet tips and vitamin suggestions. **5.3 trackWaterIntake:** Allows daily hydration tracking. **5.4 ForbiddenFoods:** Lists foods/drinks to avoid each month. **5.6 GetDietaryGuidance:** Recommend nutrition advice.	interface INutritionSystem { NutritionPlan getNutritionPlan(int month); List<String> viewDailyTips(); } interface IWaterIntake { void trackWaterIntake(String motherId, double amount); } Interface IDietaryGuidance {displayForbiddenFoods(int month); }interface IGetDietaryGuidance { List<Product> getDietaryGuidance()}
4. Cosmetics Awareness Module	**6.1 getCosmeticWarnings:** Lists unsafe cosmetics. **6.2 getRecommendedCosm:** List recommended cosmatics.	Interface ICosmeticInfo {getCosmeticWarnings(); getRecommendedCosm();}

5. Medication	**7.1 searchMedication:** Allows search for safe/unsafe drugs.
	7.2 displaySafeMedications: Shows approved drugs by trimester.
	7.3 displayUnsafeMedications: Lists harmful medications.
		Interface ISearchMedication{
		searchMedication(String name);
		List<Medication>}
		
		interface IMedicationSafety {
		List<Medication>
		displaySafeMedications(int month);
		List<Medication>
		displayUnsafeMedications(int month); }

6. Consultation	**8.1 bookConsultation:** Books online doctor appointments. **8.2 startChat:** Opens secure chat between mother and doctor. **8.3 viewConsultationHistory:** Displays previous consultations and messages. **8.4 startChat:** Provides a secure channel for conversations between mother and doctor.	interface IConsultationService { void bookConsultation(String motherId, String doctorId, Date time); }interface IChatSystem{void startChat(String motherId, String doctorId); }interface IConsultationHistory{List<Consultation> viewConsultationHistory(String motherId); } interface ICommunicationSystem { ChatSession startChat(String motherId, String doctorId);

7. Vaccination	**9.1 trackBabyVaccinations:** Tracks vaccinations based on Egyptian schedule.
	9.3 recordVaccination: Records completed doses.
	9.4 trackGrowth: Displays growth chart and stats.
		interface IVaccinationTracker { void trackBabyVaccinations(String babyId); void recordVaccination(String babyId, String vaccineName); GrowthData trackGrowth(String babyId); }
		interface ITrackGrowth{ GrowthData trackGrowth();
		
		}

8. Depression Awareness	**10.1 showDepressionInfo:** Provides awareness content on prenatal/postnatal depression. **10.2 selfAssessment:** Enables mothers to take a depression self-test. **10.3 showCopingTips:** Offers relaxation and counseling resources.	interface IMentalHealthModule { void showDepressionInfo();List<Tip> showCopingTips(); } interface ISelfAssessment {selfAssessment(TestAnswers answers); }
9. Exercise	**11.1 getPregnancyExercises:** Lists trimester-specific safe exercises. **11.2 getPostpartumExercises:** Provides postpartum recovery exercises. **11.3 logExerciseActivity:** Records daily exercise logs.	interface IExerciseSystem { List<Exercise> getPregnancyExercises(int month); List<Exercise> getPostpartumExercises(int week); void logExerciseActivity(String motherId, ExerciseData data); }
10. Breastfeeding	**12.1 manageBreastfeeding:** Tracks breastfeeding sessions and reminders. **12.2 getContraceptiveInfo:** Displays available contraceptive options and side effects. **12.3 getLaborComparison:** Displays detailed comparison of natural vs. C-section labor.	interface IFamilyPlanning { void List<Contraceptive> getContraceptiveInfo(); void } interface IContraceptiveInfo { manageBreastfeeding(BreastfeedSession session);} interface ILaborCompare{ getLaborComparison();
11. Emergency	**13.1 emergencyContact:** One-click contact with doctor/hospital. **13.2 19.3 issueCriticalAlert:** Triggers immediate alerts when readings are unsafe, advising doctor contact.	interface IEmergencySystem { void emergencyContact(String motherId); } interface IAlerts{ issueCriticalAlert(String motherId, ReadingData data);

12. Feedback	**14.1 submitFeedback:** Allows mothers to submit feedback on doctors or the app. **14.2 viewRatings:** Displays average ratings for doctors.	interface IFeedbackSystem { void submitFeedback(String userId, FeedbackData feedback); List<Feedback> viewRatings(String doctorId); }
13. Data Privacy	**15.1 encryptData:** Encrypts sensitive information before storage. **15.2 verifyAccess:** Ensures authorized access to data. **15.3 backupDatabase:** Performs regular encrypted backups.	interface ISecuritySystem { String encryptData(String data); boolean verifyAccess(String userId, String resource); void backupDatabase(); }
14. Search	**16.1 searchContent:** Allows users to search doctors, exercises, or foods. **16.2 recommendNutrition:** Suggests nutrition plans based on profile. **16.3 recommendDoctor:** Recommends doctors based on specialization and location.	interface ISearch { List<SearchResult> searchContent(String keyword); } interface IrecommendNutrition {NutritionPlan recommendNutrition(String motherId); }interface IrecommendDoctor{List<Doctor> recommendDoctor(String location, String specialization); }
15. Mother Interface	**17.1 displayDashboard:** Shows an interactive dashboard with progress, symptoms, and reminders.	interface IPersonalizationSystem { DashboardData displayDashboard(String userId);}
16. System Management Payments	**18.1 processPayment**: Integrates with certified payment gateways to securely handle transactions. **18.2 manageSubscription:** Handles subscription mechanisms (status, renewal, cancellation).	Interface PaymentResult{ processPayment(PaymentData data); void manageSubscription(SubscriptionAction action);}

17. Specialized Health	**19.1 logHealthReading:** Allows mothers to log health data (blood sugar, blood pressure). **19.2 analyzeHealthData:** Analyzes logged data against safe thresholds. **19.3 getTandemGuidelines:** Provides evidence-based safety guidance on breastfeeding while pregnant, including warning signs (contractions, bleeding). **19.4 getTandemNutritionAdvice:** Delivers customized nutritional advice for increased caloric and nutrient requirements. **19.5 getMilkChangeInfo:** Provides information on breast milk changes (e.g., shift to colostrum) and tips for managing aversion/refusal by the older child.	interface ISpecializedCare { void logHealthReading(HealthReading reading); AnalysisResult analyzeHealthData(String motherId);} interface ITandemGuidance{ getTandemGuidelines(); NutritionAdvice getTandemNutritionAdvice(); MilkChangeInfo getMilkChangeInfo(); }

Use case Description.

1.Manage vaccination schedule.

Name	**Manage vaccination schedule**	
Type	Primary	Essential
Actors	Admin, Mother	

Description	1-Mom shall register for baby profile and add baby information to start access this dashboard. 2-Mom could browse the Egyptian vaccination schedule. 3-Mom could track her baby vaccination schedule. 4- Mom could know each vaccination dose before each time of vaccination. 5-Mom could record completed vaccinations after each time. 6-Mom could know the available time for her baby to take each vaccine at public health unit. 7-Mom could receive reminders before each vaccination dose. 8-Mom could know the nearest health units or medical centers for her baby to take the vaccine. 9-Admin could view, edit, update the official Egyptian vaccination schedule. 10-Admin could define the official vaccination days/hours for public health units.
Cross reference	R1, R2, R3.
Preconditions	Manage Authentication, Manage profile.
Postconditions	Provide breastfeeding management, Provide depression awareness.
Alternative scenario	1-At step 1 if mom could not register for baby profile show you could not complete follow up alert message. 2-At step 2 if mom could not browse the Egyptian vaccination schedule show could not find information know alert message. 3-At step 4 if mom could not know each vaccination dose before each time show is not available information for this dose alert message. 4-At step 5 if mom could not record completed vaccinations after each time the system shows an error message and sends later notification “Please fill in the completed dose”. 5-At step 6 if mom could not know the available time for her baby to take each vaccine at public health unit show we will search for nearest time for vaccination alert message. 6-At step 7 if mom could not receive reminders before each vaccination dose, she might configure the system to turn on notifications. 7- At step 8 if mom could not know the nearest health units or medical centers (No Location Permission) the system prompts for location or allows manual entry; falls back to search without auto-detection.

	8- At step 9 if admin could not view, edit, update the official Egyptian vaccination schedule the system validates and prevents invalid updates, showing errors. 9- At step 10 if admin could not define the official vaccination days/hours for public health units, show turn on location configuration system alert message.

List or Requirements:

1. R1: Mom must have an account.
2. R2: Mom must create a Baby profile.
3. R3: Mom must register the child in the birth registry.
4. R4: Mom has the Egyptian vaccination card for the baby.

Use case Interaction scenario

Actor intentions	System response
1-Mom shall register for baby profile and add baby information to start access this dashboard.	2-System will render you can manage vaccination schedule now message.
3-Mom could browse the Egyptian vaccination schedule.	4-System will give mother the option to follow up her baby vaccination schedule.
5-Mom could track her baby vaccination schedule.	
6- Mom could know each vaccination dose before each time of vaccination.	7-System will send alerts for each vaccination time.
8-Mom could record completed vaccinations after each time.	
9-Mom could know the available time for her baby to take each vaccine at public health unit.	10-System shall search nearest time according to Egyptian schedule.

11-Mom could receive reminders before each vaccination dose.	12-Mom could know the nearest health units or medical centers for her baby to take the vaccine.
13-Admin could view, edit, update the official Egyptian vaccination schedule.	14-System shall view updated vaccination schedule.
15-Admin could define the official vaccination days/hours for public health units.	
Condition/Event	**System Response**
Step 1: Mom could not register for baby profile	The system displays validation error messages for missing mandatory fields, prevents submission, and does not grant access to the Vaccination Dashboard.
Step 2: Mom could not browse the Egyptian vaccination schedule.	The system displays: "Could not find information know" alert message.
Step 3: Mom could not know each vaccination dose before each time.	The system displays: "Is not available information for this dose" alert message.
Step 4: Mom could not record completed vaccinations after each time.	The system displays: "Could not reach to server" alert message.
Step 5: Mom could not know the available time for her baby to take each vaccine at public health unit.	The system displays: "We will search for nearest time for vaccination" alert message.
Step 6: Mom could not receive reminders before each vaccination dose.	System displays a configuration prompt: “Turn on notifications to receive reminders before each vaccination dose.” (No automatic alert; user is guided to enable)
Step 7: Mom could not know the nearest health units or medical centers.	The system prompts for location or allows manual entry; falls back to search without auto-detection.
Step 8: Admin could not view, edit, or update the official Egyptian vaccination schedule.	The system shows an error message and sends later notification “Please fill in the completed dose”.
Step 9: Admin could not define the official vaccination days/hours for public health units.	The system displays: "Turn on location configuration system" alert message.

Test Requirements

ID	Test requirements
TR1	Verify that the mom must successfully register for a baby profile and add all necessary baby information before accessing the vaccination dashboard
TR2	Verify that the mom can browse and view the official Egyptian vaccination schedule.
TR3	Verify that the mom can track her specific baby's vaccination schedule, correctly showing completed and upcoming doses.
TR4	Verify that the mom can view the specific details/information for each vaccination dose before the scheduled time.
TR5	Verify that the mom can record completed vaccinations after each time they are administered, and the baby's tracked schedule updates accordingly.
TR6	Verify that the system correctly provides the available days/hours (nearest time) for her baby to receive the vaccine at a public health unit based on the schedule and unit-defined hours
TR7	Verify that the mom receives reminders before each scheduled vaccination dose.
TR8	Verify that the mom can view the nearest public health units or medical centers where her baby can receive the vaccine.
TR9	Verify that the admin can view, edit and update the current official Egyptian vaccination schedule.
TR10	Verify that the admin can define and update the official vaccination days/hours for specific public health units.
TR11	Verify that any edits or updates made by the admin to the official schedule or unit hours are correctly reflected in the mom’s dashboard and tracking features.

Test cases

Test Case ID	Test Scenario	Test Steps	Expected Output	Actual Output	Steps
TC_001	**TR1:** Successful	1. Log in as Mom.	The system registers the baby		

	Baby Profile Registration.	2. Register in baby profile. 3. Enter **all valid and complete mandatory** baby information. 4. Submit the profile.	profile, confirms the success, and **grants access** to the Vaccination Dashboard.		
TC_002	**TR4:** Successful Dose Detail Retrieval.	1. Log in as Mom. 2. Select a valid upcoming vaccine dose (e.g., 6-month dose). 3. Click to view details.	The system successfully retrieves and displays the specific details/information for that vaccination dose without any error messages.		
TC_003	**TR5:** Successful Completion Record Update.	1. Log in as Mom. 2. Select a vaccine (e.g., 4-month dose). 3. Record the administration date/unit. 4. Submit. 5. Verify the history log.	The dose status is **permanently updated to "Completed."** The recorded date appears on the schedule and in a visible **history log**.		
TC_004	**TR6:** Successful Nearest Available Time Retrieval.	1. Log in as Mom. 2. open baby profile 3. Search for the available time for the next scheduled vaccine. 4. Ensure the mom's location is known.	The system **returns the nearest available day and hour** for the vaccine, correctly calculated from the official schedule and the unit's defined hours (TR10).		

TC_005	**TR9/TR11:** Successful Admin Update and Mom Dashboard Propagation.	1. Admin updates the recommended age for a vaccine from 9 months to 12 months (TR9). 2. Admin saves the change. 3. Mom logs in and views her Baby's Schedule.	1. The admin receives a **successful update confirmation**. 2. The Mom's dashboard **automatically updates**, and the baby's next scheduled date for that vaccine is recalculated based on the new **12-month** recommendation.		
TC_006	**TR2:** Access Official Schedule Without Registered Baby.	1. Log in as Mom without a registered baby profile. 2. Attempt to navigate to the official vaccination schedule section.	The system redirects baby profile registration or displays a message requiring profile completion; schedule is not accessible.		
TC_007	**TR1:** Attempt Baby Profile Registration with Missing Mandatory Fields.	1. Log in as Mom. 2. Navigate to baby profile registration. 3. Leave one or more mandatory fields empty (e.g., baby name or date of birth). 4. Submit the profile.	The system displays validation error messages for missing mandatory fields, prevents submission, and does not grant access to the Vaccination Dashboard.		
TC_008	**TR1:** Mom fails to	1. Log in as Mom. 2. Navigate to	The system displays validation error messages for		

	register baby profile	baby profile registration. 3. Submit with missing/invalid data or simulate server failure. 4. Observe system response.	missing mandatory fields, prevents submission, and does not grant access to the Vaccination Dashboard.		
TC_009	**TR2:** Mom cannot browse official Egyptian vaccination schedule	1. Log in as Mom with registered baby. 2. Navigate to official schedule section. 3. Simulate network failure or empty data response.	The system displays error message “Could not find information now”.		
TC_010	**TR8:** Mom cannot view nearest health units (No Location Permission)	1. Log in as Mom. 2. Deny or disable location permission. 3. Navigate to “Find Nearest Units”. 4. Attempt to load list.	The system prompts for location or allows manual entry; falls back to search without auto-detection.		
TC_011	**TR9:** Admin fails to view/edit official schedule	1. Log in as Admin. 2. Navigate to official Egyptian vaccination schedule management.	The system validates and prevents invalid updates, showing errors.		

		3. Simulate database offline or API error.			
TC_012	**TR7:** Mom does not receive reminders (configuration path)	1. Log in as Mom. 2. Ensure a dose is scheduled within reminder window. 3. Intentionally disable notifications in app settings. 4. Wait for reminder time (simulate).	System displays a configuration prompt: “Turn on notifications to receive reminders before each vaccination dose.” (No automatic alert; user is guided to enable)		
TC_013	**TR4:** Attempt to View Details for Non-Existent Dose.	1. Log in as Mom. 2. Attempt to access details for a dose not in the schedule.	The system shows an appropriate error or no details section.		
TC_014	**TR5:** Can not update completed dose.	1. Log in as Mom. 2. Select a vaccine (e.g., 4-month dose). 3. Came to record the administration date/unit. 4. Can not submit.	The system shows an error message and sends later notification “Please fill in the completed dose”.		

2.Manage Chat:

Name	Manage Chat	
Type	Primary	Essential
Actors	**Mother (Primary Actor)** – initiates chat and communicates with doctor. **Doctor (Secondary Actor)** – replies to messages, views attachments, and provides guidance. **System (Supporting Actor)** – manages message delivery, storage, and security validation.	
Description	1. The mother logs into the system. 2. She navigates to the **Consultation** section. 3. The system verifies that the mother has at least one booked consultation. 4. She selects a doctor from her past or current consultations. 5. The mother clicks on **"Start Chat."** 6. The system validates both users' availability (mother and doctor). 7. The chat interface loads with the doctor's name, profile, and previous messages (if any). 8. The mother types a text message and sends it. 9. The doctor receives the message instantly and replies. 10. The system displays both messages in chronological order for both users. 11. The mother attaches an image or report (e.g., lab result). 12. The system checks file type, size, and encryption before sending. 13. The doctor views the attachment, downloads, or opens it securely. 14. Either user can use quick-reply buttons or emojis for faster communication. 15. The system logs timestamps for all messages and attachments. 16. Either user can close the chat window at any time. 17. The system saves chat history automatically for record and later reference. 18. If inactive for more than 10 minutes, the chat times out automatically and status becomes	
Cross Reference	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10	
Pre-condition	1. User Authentication 2. Consultation Booking 3. View Consultation Details 4. Permissions Enabled	
Post-Condition	1. Chat Summary Visible 2. Attachments Accessible 3. Option to Re-Open or Start New Chat 4. Feedback Prompt Displayed	

List or requirements:

ID	Requirement Description
R1	The mother must have a personal account created in the system.
R2	The mother must be logged into her account before using any feature.
R3	The mother must have already booked a consultation with a doctor.
R4	The booked consultation must still be active (not cancelled or expired).
R5	The mother must have a device such as a phone or laptop that supports chatting.
R6	The mother must have a stable internet connection.
R7	The mother must know which doctor she wants to chat with and select them from her booked consultations.
R8	The mother must have access to the "Consultation" section in her account.
R9	The mother must have sufficient time to complete the chat session without interruptions.
R10	The mother must follow the consultation guidelines (e.g., polite communication, medical purpose only).

Use Case Interaction Scenario:

Actors' Interactions	System Responses
The mother logs in and opens the **Consultation** section.	The system verifies authentication and retrieves all booked consultations.
The mother selects a consultation and clicks **"Start Chat."**	The system checks consultation validity and loads chat interface with doctor's details.
The mother sends a greeting message.	The system delivers the message instantly to the doctor's interface and updates chat status to "Active."
The doctor replies to the message.	The system displays the reply immediately to the mother.
The mother uploads an image or PDF (medical report).	The system validates file size, type, and encryption, then sends it securely to the doctor.
The doctor views, downloads, or comments on the uploaded file.	The system records that the file was viewed and time-stamps the action.
The mother asks a medical question.	The system logs the query and marks the doctor's response as "Professional Advice."
The doctor sends an educational link or resource.	The system checks that the URL is safe and displays it to the mother.
The mother reacts to a message using emoji.	The system records the reaction without altering message order.
The doctor adds a note for follow-up.	The system stores it under "Consultation Notes."
The mother ends the chat manually.	The system saves chat history, updates consultation status to **"Closed,"** and prompts feedback.

The doctor ends the chat session.	The system saves logs and sends closure confirmation to the mother.
Chat session is idle for 10 minutes.	The system auto-closes chat, sends timeout notice, and saves chat record.
The mother reopens a past chat from history.	The system retrieves stored chat logs and displays read-only mode.
The doctor or mother deletes a specific message.	The system confirms deletion, removes it from both ends, and flags it as "Deleted by user."
The mother rates the chat experience after closing.	The system saves rating and updates doctor's average score.

Alternative Scenario:

Condition / Event	System Response
If the mother tries to start a chat without a booked consultation.	The system displays: *"You must book a consultation before starting chat."* and provides a shortcut button to the booking page.
If the doctor is offline or busy.	The system sends an automated message: *"Doctor is currently unavailable. You may leave a message or try later."*
If either user's session expires (e.g., logged out due to inactivity).	The system pauses chat and prompts re-login. Once authenticated, chat session resumes automatically.
If the internet connection drops during chat.	The system displays "Reconnecting…" and retries every 5 seconds until stable. Messages are queued and sent when connection restores.
If an unsupported or large file is uploaded (>10 MB).	The system rejects it with: *"File size exceeds limit. Please upload smaller files."*
If the doctor sends a prohibited file type (e.g., .exe).	The system blocks transfer, notifies both users, and logs the attempt for admin review.
If database temporarily fails during chat.	The system caches unsent messages locally and retries syncing once the connection is restored.
If the chat remains inactive for 10 minutes.	The system auto-closes the session, displays "Chat ended due to inactivity," and stores all messages.
If the mother reopens a completed chat.	The system displays chat history in read-only mode with the option to "Start New Consultation."
If encryption validation fails.	The system prevents message sending and alerts technical support automatically.
If the doctor blocks a user.	The system prevents further messages from being sent and notifies the mother that communication has been restricted.

If either party reports inappropriate content.	The system flags the message, hides it, and alerts an admin for review.
If session time exceeds 60 minutes.	The system automatically saves all logs and prompts both users to extend or end the session.

Test requirements:

ID	Test Requirement	Description / Expected Behavior
TC1	Consultation Verification	Verify that chat cannot be started without a booked consultation.
TC2	Chat Interface Load	Verify that the chat interface loads with the doctor's name, profile, and previous messages.
TC3	Send Text Message	Verify that the mother can send a text message and the doctor receives it instantly.
TC4	Receive Text Message	Verify that messages from the doctor are received in real-time and in chronological order.
TC5	Message Timestamp	Verify that each message has a correct timestamp showing when it was sent and received.
TC6	Attach Image	Verify that the mother can attach images and send them securely to the doctor.
TC7	Attach PDF/Report	Verify that PDF or medical reports can be uploaded, validated, and sent securely.
TC8	Attachment Validation	Verify that the system blocks unsupported file types and oversized files (>10MB).
TC9	Secure Attachment Access	Verify that the doctor can view, download, or open attachments securely.
TC10	Chat History Logging	Verify that all messages and attachments are saved automatically for future reference.
TC11	Manual Chat Closure	Verify that either user can close the chat manually, saving all chat logs.
TC12	Auto Timeout	Verify that chat sessions idle for more than 10 minutes (for example) automatically close and save logs.
TC13	Reopen Past Chat	Verify that past chat history can be reopened in read-only mode.
TC14	Message Deletion	Verify that either user can delete a message and it is removed from both ends, flagged as deleted.
TC15	Feedback Prompt	Verify that after chat closure, the mother is prompted to provide feedback on the session.
TC16	Doctor Offline Handling	Verify that if the doctor is offline, the system notifies the mother and allows leaving a message.
TC17	Encryption & Security	Verify that all messages and attachments are end-to-end encrypted and cannot be accessed by unauthorized users.

Test cases:

Test Case ID	Test Scenario	Test Steps	Expected Output	Actual Output	Steps
TC1	Consultation Verification	1. Attempt to start chat without booking a consultation	System prevents chat and shows “You must book a consultation first.”		
TC2	Chat Interface Load	1. Click “Start Chat” for booked consultation	Chat interface loads with doctor’s name, profile, and previous messages		
TC3	Send Text Message	1. Type a text message 2. Click send	Message appears in mother’s interface and instantly in doctor’s interface		
TC4	Receive Text Message	1. Doctor sends a message	Message appears instantly in mother’s interface in chronological order		
TC5	Message Timestamp	1. Send/receive messages	Each message shows correct sent/received timestamp		
TC6	Attach Image	1. Click attach image 2. Select image 3. Send	Image is uploaded, validated, encrypted, and visible to doctor		
TC7	Attach PDF/Report	1. Click attach 2. Select PDF 3. Send	PDF is uploaded, validated, encrypted, and visible to doctor		
TC8	Attachment Validation	1. Try to send unsupported file type or file >10MB	System rejects the file and shows an error message		
TC9	Secure Attachment Access	1. Doctor clicks to open/download attachment	Attachment opens/downloads securely, encrypted		
TC10	Chat History Logging	1. End chat 2. Reopen later	All messages and attachments are saved and displayed in correct order		
TC11	Manual Chat Closure	1. Click “End Chat”	Chat closes, messages saved, status updated to “Closed”		

TC12	Auto Timeout	1. Leave chat idle >10 mins	Chat auto-closes, saves messages, notifies users		
TC13	Reopen Past Chat	1. Open chat history 2. Click past session	Chat displayed in read-only mode; messages visible		
TC14	Message Deletion	1. Select message 2. Click delete	Message removed from both ends and flagged as “Deleted by user”		
TC15	Feedback Prompt	1. End chat	Mother sees prompt to provide feedback; feedback saved after submission		
TC16	Doctor Offline Handling	1. Attempt to start chat while doctor is offline	System shows “Doctor offline, leave a message or try later”		
TC17	Encryption & Security	1. Inspect transmitted messages/attachments	Messages and attachments are end-to-end encrypted and cannot be accessed by unauthorized users		

3. Manage Authentication:

Name	Manage Chat	
Type	Primary	Essential
Actors	**Mother (Primary Actor) –** initiates login, logout, and manages her authentication credentials. **Doctor (Primary Actor) –** initiates login, logout, and manages authentication for accessing patient data. **Admin (Primary Actor) –** initiates login, manages authentication, and performs administrative actions like user verification.	
Description	1. The user (Mother, Doctor, or Admin) accesses the login page via the app or website. 2. The user enters their username/email and password. 3. The system validates credentials against the secure user database, ensuring encryption (R14.1). 4. If valid, the system generates a secure session token and redirects the user to their personalized dashboard (R17.1). 5. If multi-factor authentication (MFA) is enabled, the system prompts for a secondary verification code (via authenticator app, SMS, or email). 6. The user can request a password reset using their registered email or phone.	

	7. The system sends a secure, time-limited reset link or code to the user's registered contact method. 8. The user enters and confirms a new password, adhering to complexity requirements (e.g., 8+ characters, uppercase, lowercase, number, special character). 9. The system updates the password in the database and logs the event. 10. The user can modify authentication settings, such as enabling/disabling MFA or updating recovery email. 11. The system requires secondary confirmation (e.g., current password or MFA code) for sensitive changes. 12. For inactive sessions, the system prompts for re-authentication or auto-logs out after 15 minutes (R16.1). 13. The user can manually log out, invalidating the session token. 14. The system logs all authentication events (successful logins, failed attempts, password resets) for audit purposes (R14.1). 15. If suspicious activity is detected (e.g., multiple failed logins), the system locks the account and notifies the user via email or SMS (R27.1). 16. The Admin can review logs, unlock accounts, or reset credentials for users (R7). 17. All authentication processes use HTTPS and end-to-end encryption to ensure data privacy (R14.1).
Cross Reference	R1.1, R1.1.1, R1.1.2, R14.1, R16.1, R27.1
Pre-condition	1. **Registered User Account** The user must have an active and registered account in the system (R1.1). 2. **Operational System Database** The system database must be accessible to validate the user's credentials. 3. **Secure Device Environment** The user's device must support a secure browser or application with HTTPS connectivity (R14.1). 4. **Configured MFA (If Enabled)** If multi-factor authentication is enabled, the user must have a previously configured MFA method (e.g., authenticator app, SMS) (R1.1.2). 5. **Stable Internet Connectivity** The user must have a stable internet connection to complete the authentication process (R16.1). 6. **Account Not Locked** The user's account must not be in a locked or suspended state due to prior suspicious activity.

Post-Condition	1. **Active User Session** Upon successful login, a secure session is created and the user gains access to their personalized dashboard (R17.1). 2. **Secure Credential Updates (If Performed)** Any changes to the user's password or MFA settings are securely encrypted and stored in the system (R14.1). 3. **Authentication Logs Updated** All login attempts (successful or failed), authentication changes, and security events are recorded for auditing and monitoring (R14.1). 4. **MFA Configuration Updated (If Modified)** Any updates to MFA settings are saved and immediately applied to the account. 5. **Account Lock Status Managed** If the account was locked, it is either unlocked by an admin or automatically restored after the defined timeout period (R27.1).

List or requirements:

ID	Requirement Description
R1.1	The system shall allow users (mothers and doctors) to register (Sign Up) and log in (Login).
R1.1.1	Users can select their account type (Mother, Female Doctor, Male Doctor).
R1.1.2	The system shall make this securely using encrypted passwords and Gmail.
R14.1	All user data shall be securely encrypted and not shared.
R16.1	The system shall maintain fast response times and handle a large number of concurrent users efficiently.
R27.1	The system shall implement a comprehensive, personalized notification system to prompt necessary user actions and ensure successful health tracking.

Use Case Interaction Scenario:

Actors' Interactions	System Responses
The user navigates to the login page and enters username/email and password.	Validates credentials against the encrypted database and checks account status.
The user selects their account type during registration (Mother, Female Doctor, Male Doctor).	Stores account type and assigns appropriate permissions (R1.1.1).
If credentials are correct and MFA is enabled, the user is prompted for a code.	Generates and sends a one-time code via authenticator app, SMS, or email (R1.1.2).
The user enters the MFA code.	Verifies the code, creates a secure session token, and grants access.

The user is redirected to their personalized dashboard.	Logs the successful login with timestamp and IP; displays dashboard (R17.1).
The user requests a password reset via registered email.	Verifies email, sends a secure, time-limited reset link (R14.1).
The user clicks the reset link and enters a new password.	Validates password complexity, updates database, and invalidates old sessions.
The user updates MFA settings (e.g., enables app-based MFA).	Prompts for verification, generates QR code, and saves MFA configuration.
The user remains inactive for 15 minutes.	Prompts re-authentication or auto-logs out, invalidating session (R16.1).
The user manually logs out from the dashboard.	Destroys session token and redirects to login page.
The Admin reviews authentication logs for a user.	Displays encrypted logs with login attempts, failures, and changes (R14.1).
The user attempts login from a new device.	Prompts additional verification (e.g., email confirmation) for security.
The Admin unlocks a locked user account.	Updates account status and notifies the user via email or SMS (R27.1).

Alternative Scenario:

Condition / Event	System Response
User enters incorrect credentials three times.	Displays: "Too many failed attempts. Account locked for 30 minutes." and sends email/SMS notification (R27.1).
MFA code is invalid or expired.	Resends a new code or prompts retry, limiting attempts to prevent brute-force attacks.
Password reset link is expired (e.g., after 1 hour).	Displays: "Link expired. Request a new password reset." with a button to restart.
Account is locked due to suspicious activity.	Emails unlock instructions and allows Admin intervention (R27.1).
Internet connection drops during MFA verification.	Displays: "Connection lost. Please retry." and caches attempt for resumption.
New password does not meet complexity requirements.	Rejects with: "Password must include 8+ characters, uppercase, lowercase, number, special character."
User forgets MFA setup and requests disable.	Requires identity verification via support ticket or backup codes.
Multiple login attempts from different IPs.	Flags as suspicious, requires CAPTCHA, and logs for Admin review (R14.1).
Database is unavailable during login.	Displays: "Service temporarily unavailable. Please try again later." and queues attempt.

User tries to access restricted feature without authentication.	Redirects to login page with: "Please log in to continue."
Admin attempts to reset a user's password without permissions.	Denies access and logs unauthorized attempt for audit (R14.1).

Test Requirements:

Test Requirement ID	Test Requirement Description
TR01	Verify that users can log in and log out successfully using valid credentials.
TR02	Verify that registration supports different user types (Mother, Female Doctor, Male Doctor).
TR03	Verify that the system assigns correct permissions based on account type.
TR04	Verify that MFA setup, verification, and disabling work correctly.
TR05	Verify that all credentials and session tokens are encrypted and transmitted securely.
TR06	Verify that inactive sessions are logged out after 15 minutes of inactivity.
TR07	Verify that successful login redirects users to their personalized dashboards.
TR08	Verify that notifications are sent for account locks, password resets, and new logins.

Test requirements:

Test Case ID	Test Scenario	Test Steps	Expected Output	Actual Output	Steps
TC_01	Successful login with valid credentials	1. Navigate to login page.2. Enter valid username/email and password.3. Click "Login".	Access granted, redirected to personalized dashboard, login logged (R1.1, R1.4, R1.6).		
TC_02	Login with invalid credentials	1. Enter valid username but wrong password.2. Click "Login".	Displays "Invalid credentials." Access denied, attempt logged (R1.1, R1.6).		

TC_03	Account lock after multiple failed logins	1. Attempt login with wrong password 5 times.2. Attempt 6th login.	Displays “Account locked for 30 minutes.” Sends email/SMS (R1.7, R1.9).		
TC_04	Successful MFA login	1. Log in with valid credentials (MFA enabled).2. Enter correct MFA code.	Access granted, dashboard shown, event logged (R1.3, R1.4).		
TC_05	Invalid or expired MFA code	1. Log in with valid credentials.2. Enter invalid or expired MFA code.	Displays “Invalid/Expired MFA code.” Access denied (R1.3).		
TC_06	Password reset via email	1. Request password reset.2. Click secure link in email.3. Enter valid new password.4. Submit.	Password updated, redirected to login, reset logged (R1.2, R1.4, R1.6).		
TC_07	Weak password rejected during reset	1. Request password reset.2. Enter weak password (e.g., "pass").	Displays “Password must be 8+ characters with uppercase, lowercase, number, special character.” (R1.2).		
TC_08	Session timeout after inactivity	1. Log in.2. Leave idle for 15+ minutes.3. Attempt to navigate.	Session expired, redirected to login with “Session timed out.” (R1.5).		
TC_09	Manual logout	1. Log in.2. Click “Logout”.3. Try accessing dashboard.	Redirects to login page. Session invalidated (R1.5).		
TC_10	Login from a new device	1. Log in from a new IP/device.2. Enter valid credentials.	Prompts additional verification or		

			sends notification of new login (R1.7, R1.9).		
TC_11	Admin unlocks locked account	1. Account locked due to failed attempts.2. Admin logs in.3. Unlocks account.	Account unlocked, user notified, event logged (R1.8, R1.9).		
TC_12	Enable MFA setup	1. Log in.2. Go to Account Settings → Enable MFA.3. Scan QR code and verify.	MFA enabled for future logins (R1.3).		
TC_13	Disable MFA setup	1. Log in.2. Go to Account Settings → Disable MFA.3. Confirm with password/MFA code.	MFA disabled; normal login active (R1.3, R1.2).		
TC_14	Review authentication logs (Admin)	1. Admin logs in.2. Navigate to Audit Logs.3. View entries.	Logs display timestamps, IPs, and actions (R1.6, R1.8).		
TC_15	Unauthorized data access attempt	1. Attempt to access restricted page/API without login.	Displays “Unauthorized access.” Attempt logged (R1.4, R1.6).		
TC_16	HTTPS and encryption validation	1. Inspect login and password reset requests via browser tools.	All data sent via HTTPS; credentials encrypted (R1.4).		
TC_17	Notification on security events	1. Trigger password reset, account lock, or new device login.	System sends appropriate notification via email/SMS (R1.9).		

4. Mange Profile

Name	Mange Profile
Type	Primary & Essential
Actors	Admin , Mom ,Doctors
Description	If user is mom: 1. The mom signs up, enters her personal details, verifies her account via email or phone, and creates her main profile in the system. 2. She adds or edits her information such as date of birth, health status, weight, height, address, and profile picture. 3. The mom creates separate profiles for her children by entering each child's name, birth date, gender, and health condition. 4. She tracks vaccinations, chronic or pregnancy-related health conditions, and adds medication reminders for herself or her children. 5. She can view her dashboard showing her and her children's health summaries, schedules, and recommendations. 6. The mom can chat with doctors, book medical consultations, and send emergency alerts when needed. 7. She records meals and nutrition, tracks breastfeeding, manages family planning, compares labor types, and receives warnings about unsafe products or depression awareness tips. 8. The mom can view and manage paid services, make payments, and receive electronic receipts for consultations or subscriptions. 9. She can edit any personal or child information, save the changes, and keep her data up to date. 10. From account settings, she can permanently delete her profile — including all linked child profiles, subscriptions, and stored data. If user is a doctor: 1. The doctor creates an account by entering personal and professional details, selects "Doctor" as the user type, and activates the account using a verification code. 2. After logging in, the doctor completes his profile by adding medical license number, specialization, years of experience, work location, and consultation hours. 3. The doctor uploads verification documents such as a medical license or ID. The admin reviews and approves the account before it becomes visible to users. 4. The doctor can update contact details, profile photo, and professional information or add new certifications.

	5. The doctor receives consultation requests from moms, accepts or declines appointments, accesses patient information, and conducts sessions via chat or video. 6. The doctor uses in-app chat to communicate with moms, provide medical advice, and view previous conversations. 7. The doctor views feedback from moms and uses it to improve service quality. 8. The doctor adds personalized health, exercise, or nutrition recommendations and updates medical notes for patients. 9. The doctor modifies availability schedules, updates consultation fees, or temporarily deactivates the account when unavailable. The doctor can permanently delete the account, after which the system removes all related data, consultations, and communication records.
Cross Reference	R1 , R2 , R3 , R4 , R5 , R6
precondition	Mange Authantication
postcondition	Mange vaccination schedule , consult with doctor , Mange payment , Display personalize dashboard
Alternative Senario	If user is mom: 1. Sign Up / Verification Failure: ○ Email or phone already registered → System displays: “Account already exists.” ○ Verification code invalid or expired → System prompts: “Invalid code. Please request a new one.” 2. Incomplete Personal Information: ○ Required fields (e.g., name, date of birth) are missing → System highlights missing fields and prevents saving until completed. 3. Invalid Data Entry: ○ Wrong data format (e.g., letters in weight/height fields) → System shows: “Please enter valid numeric values.” 4. Child Profile Creation Error: ○ Duplicate ID name or missing birth date → System displays: “Child profile information incomplete or already exists.” 5. Health Data Update Failure: ○ System error while saving changes → Message: “Update failed. Please try again later.” 6. Network or Connectivity Issue: ○ If no internet → System shows: “Cannot connect to server. Please check your internet connection.”

	7. Consultation Booking Issue: ○ Selected doctor not available → System notifies: "Doctor unavailable at the selected time. Please choose another slot." 8. Payment Failure: ○ Insufficient funds or transaction declined → System shows: "Payment unsuccessful. Please try again or use another method." 9. Unauthorized Action: ○ Trying to access doctor features (like recommendations) → "Access denied: This feature is for doctors only." 10. Profile Deletion Confirmation: ○ If server fails to delete → System displays: "An error occurred. Please contact support." If user is a doctor: 1. Account Creation Error: ○ Email or phone already used → "Account already exists." ○ Verification code incorrect → "Invalid or expired verification code." 2. Missing Required Fields: ○ Doctor forgets to enter license number or specialization → System highlights missing info and prevents submission. 3. Verification Documents Issue: ○ Invalid or blurry document upload → System prompts: "Document not clear or rejected. Please re-upload." ○ Admin rejects credentials → Notification: "Profile not approved. Please contact support." 4. Profile Update Error: ○ Wrong format (e.g., text in phone field) → "Invalid input format." ○ Server issue → "Profile update failed. Try again later." 5. Consultation Management Issues: ○ Doctor tries to accept an already booked slot → "Time conflict detected. Please select another schedule." ○ Patient canceled consultation → "Appointment canceled by user." 6. Chat or Communication Error:

	○ Connection lost during chat → "Chat disconnected. Reconnecting…" ○ Message failed to send → "Message not sent. Please try again." 7. Feedback Handling: ○ Doctor tries to delete feedback → "Action not allowed. Feedback is system-locked." 8. Recommendation Update Error: ○ Doctor tries to add recommendation for non-verified patient → "Patient not verified for this session." 9. Availability or Fee Update Error: ○ Invalid time format → "Please enter a valid time range." ○ Fee update rejected by system → "Invalid amount." 10. Profile Deletion Issue: ○ If deletion process fails → "Error deleting account. Please contact support."

List of cross references:

R1: Valid registered account (email and password).

R2: Verified phone number.

R3: Successful login to the system.

R4: User type identified (Doctor or Mother).

R5: Internet/system connection available.

R6: (For Doctors) Verified license and admin approval before profile activation

Interaction Senario

Actor Interaction (Mom)	System Response
1- Mom opens the application or website	2-System displays the login/sign-up page.
3-Mom clicks Sign Up, enters her name, email, phone number, and password	4-System validates data and sends a verification code to her email/phone
5-Mom enters the verification code	5-System verifies the code and activates her account.

6-Mom logs in successfully	7-System redirects to the dashboard and prompts: “Welcome, [Name]”
8-Mom clicks Create Profile	9-System displays profile creation form (personal data, photo, address, health info)
10-Mom enters personal information and saves	11-System validates fields and saves profile data. Shows message: “Profile created successfully”
12-Mom chooses Add Child Profile	13-System displays a new form for child’s info (name, birth date, gender, health condition)
14-Mom fills in child’s details and clicks Save	15-System confirms: “Child profile added successfully.”
16-Mom opens Health Tracker.	17-System shows options: vaccinations, medications, nutrition, pregnancy tracking
18-Mom adds medication reminder.	19-System saves reminder and confirms: “Reminder added to schedule
20-Mom books a Consultation with a doctor	21-System displays available doctors and appointment times.
22-Mom selects a doctor and time, then confirms booking	23-System sends booking request and displays: “Your consultation is confirmed”
24-Mom joins the chat/video consultation	25-System connects her to the doctor in a secure session.
26-Mom sends messages or uploads reports	27-System delivers messages instantly and stores them in chat history
28-Mom views feedback section and rates the doctor	29-System saves feedback and displays “Thank you for your review”
30-Mom edits her or her child’s data (e.g., weight, health status)	31-System validates and updates the information immediately
32-Mom goes to Account Settings → Delete Profile	33-System shows confirmation: “Are you sure you want to delete your profile and all data”
34-Mom confirms deletion.	35-System permanently deletes her account and related child profiles, then shows: “Your account has been deleted successfully”

Actor Interaction (Doctor)	System Response
1-Doctor opens the app or website.	2-System shows login/sign-up page.
3-Doctor clicks Sign Up, enters name, email, phone, password, and selects user type “Doctor”	4-System validates info and sends a verification cod

5-Doctor enters the verification code.	6-System activates the account and confirms registration
7-Doctor logs in.	8-System displays dashboard and prompts to complete profile setup
9-Doctor clicks Set Up Professional Profile.	10-System opens a form for license number, specialization, experience, location, and availability
11-Doctor fills in data and uploads verification documents (license, ID)	12-System validates inputs and uploads files.
13-System notifies: “Profile submitted for admin approval”	14-Admin receives the request for verification
15-Admin reviews documents.	16-System updates profile status → “Approved” or “Pending”
17-After approval, doctor’s profile becomes visible to moms	18-System displays: “Your profile is now active.”
19-Doctor receives a consultation request	20-System sends notification: “New consultation request from [Mom Name]
21-Doctor accepts or declines the appointment.	22-System confirms the action and updates schedule
23-At consultation time, doctor joins chat or video	24-System opens secure session with the mom.
25-Doctor views patient’s health data and gives recommendations	26-System logs all updates in the patient’s record.
27-Doctor updates profile info (e.g., fees, schedule, specialization)	28-System validates changes and displays “Profile updated successfully”
29-Doctor checks feedback and ratings.	30-System shows average rating and user comments
31-Doctor deactivates account temporarily.	32-System marks account as “Inactive – Hidden from moms
33-Doctor deletes account permanently.	34-System displays confirmation, then removes all data and shows: “Your account has been deleted”

Alternative scenario

Actor Interaction (Mom)	System Response (Exception)
Mom opens the app or website.	-If no internet → “Unable to connect. Please check your internet connection.”

Clicks Sign Up, enters name, email, phone, password	-Missing fields → “Please fill all required fields.” -Invalid email → “Enter a valid email.” -Weak password → “Password must contain at least 8 characters, a capital letter, and a number.” -Existing account → “This account already exists
Enters the verification code	-Wrong/expired code → “Invalid or expired code.” -Didn’t receive code → “Resend verification code”
Logs in with email and password.	-If form fails to load → “Unable to load profile form. Please try again.”
Enters personal info (DOB, weight, address, etc.) and clicks Save	-Missing or invalid data → “Please enter valid information.” -Save error → “Error saving profile. Try again”
Clicks Add Child Profile.	-Reached limit → “You have reached the maximum number of child profiles.” -Load error → “Unable to open child profile form”
Enters child details and clicks Save.	-Invalid or duplicate name → “Please enter valid or unique child name.” -Save error → “Error adding child profile. Try again”
Adds a Medication Reminder.	-Invalid date/time → “Cannot set reminder in the past.” -Missing data → “Please enter medication name.” -Save error → “Could not save reminder. Try again
Books a Consultation with a Doctor	-No doctors available → “No doctors available at this time.” -Loading error → “Unable to fetch doctor list”
Selects doctor and confirms booking	-Slot already booked → “This slot is no longer available.” -Payment failed → “Payment failed. Try again.” -Server issue → “Unable to confirm booking. Try again late”
Joins chat/video consultation.	-Connection issue → “Check your internet connection.” -Doctor unavailable → “Doctor is not

	available now." -No camera/mic access → "Allow camera and microphone access"
Sends messages or uploads reports.	-File too large/invalid type → "Upload failed. Please choose a smaller file." -Message failed → "Message not sent. Try again"
Rates the doctor and submits feedback	-Empty feedback → "Please enter a rating or comment." -Network error → "Unable to submit feedback. Try again"
Edits her or her child's info.	-Invalid data → "Invalid input detected." -Update error → "Could not update data. Try again"
Opens Account Settings → Delete Profile	-Load error → "Unable to process delete request."
Confirms Delete Profile.	-Clicks cancel → Returns to dashboard. -Server error → "Could not delete your profile. Try again late"

Actor Interaction (Doctor)	System Response (Exception)
Doctor opens the application or website	-If no internet → "Unable to connect. Please check your network connection."
Clicks Sign Up, enters name, email, phone, password, and selects user type: Doctor	-Missing info → "Please complete all fields." -Invalid email/phone → "Enter valid contact details." -Weak password → "Password must contain at least 8 characters." -Existing account → "Account already exists
Enters the verification code.	-Wrong or expired code → "Invalid or expired verification code." -Didn't receive code → "Resend verification code
Logs in using credentials.	-Invalid login → "Incorrect email or password." -Unverified account → "Please verify your email before logging in." -Account locked → "Your account is temporarily locked. Try again late
Clicks Set Up Professional Profile.	-Load error → "Unable to open profile setup. Please try again."

Fills in data and uploads verification documents (license, ID)	-Invalid file format → "Upload only PDF, JPG, or PNG files." -Missing mandatory fields → "Please complete all required fields." -Upload failed → "File upload failed. Try again"
Submits the profile for approval.	-Server or submission error → "Unable to submit profile. Try again later."
Admin reviews documents.	-If rejected → "Profile rejected. Please recheck and resubmit your documents."
After approval, doctor's profile becomes visible to moms	-Approval delay → "Your profile is still under admin review."
Doctor receives a consultation request	-Notification fails → "Unable to fetch new requests. Refresh your dashboard."
Doctor accepts or declines the appointment	-Slot already booked → "Selected slot unavailable." -System error → "Unable to update appointment status. Try again"
At consultation time, doctor joins chat or video session	-Connection issue → "Unable to connect. Check your internet." -Camera/mic blocked → "Please allow camera and microphone access." -Patient not joined yet → "Waiting for patient to connect
Doctor views patient's health data and gives recommendation	-Data not found → "Patient data unavailable." -Save error → "Could not save recommendation. Try again"
Updates professional info (fees, schedule, specialization)	-Invalid data → "Please enter valid information." -Server issue → "Could not update profile. Try again"
Checks feedback and ratings.	-No feedback yet → "You haven't received any reviews yet." -Load error → "Unable to load feedback. Try again later"
Deactivates account temporarily.	-Already inactive → "Your account is already deactivated." -System error → "Unable to update account status"
Deletes account permanently.	-Clicks cancel → Returns to dashboard. -Server issue → "Unable to delete your account. Try again late

Test Requirements:

Test Requirement ID	Test Requirement
TR1	Verify that the mom must successfully register for a baby profile and add all necessary baby information before accessing the vaccination dashboard
TR2	Verify that the doctor must successfully log in before accessing or managing any profile
TR3	Verify that the mom can view and update her personal information (name, email, phone number) correctly
TR4	Verify that the doctor can view and update their personal information (name, specialization, email, phone number) correctly
TR5	Verify that the system displays a validation message if the mom tries to save the profile with missing or invalid data
TR6	Verify that the system displays a validation message if the doctor tries to save the profile with missing or invalid data
TR7	Verify that the system validates email format correctly for both mom and doctor.
TR8	Verify that the system validates phone number format and length correctly for both mom and doctor
TR9	Verify that after successful update, a message “Profile updated successfully” is displayed
TR10	Verify that the system prevents profile updates when the user is not logged in.
TR11	Verify that when opening “Manage Profile”, the system displays the user’s previous saved data correctly
TR12	Verify that clicking “Cancel” discards any unsaved changes and returns to the previous page
TR13	Verify that the system handles server or network errors gracefully when trying to save updates and displays an error message
TR14	Verify that the mom can delete her account and child profiles permanently and the system confirms the deletion
TR15	Verify that the doctor can deactivate or delete their account, and the system updates status accordingly
TR16	Verify that after the doctor’s profile approval by admin, it becomes visible to moms for consultation booking
TR17	Verify that if the doctor’s verification is pending, the system prevents access to consultation features
TR18	Verify that moms receive an error if they try to book a consultation with an inactive doctor

TR19	Verify that system shows proper error messages when invalid files (wrong format or size) are uploaded by doctor
TR20	Verify that system displays confirmation prompts before deleting profile or discarding data for both mom and doctor

Test Cases:

Test Case ID	Test Scenario	Test Steps	Expected Output	Actual Output	Steps
TC_001	TR1: Successful Baby Profile Registration	1. Log in as Mom. 2. Register a baby profile. 3. Enter all valid baby information. 4. Submit the profile	The system registers the baby profile successfully and grants access to the Vaccination Dashboard		
TC_002	TR1: Attempt to access Vaccination Dashboard without baby profile	1. Log in as Mom. 2. Try to open the Vaccination Dashboard without adding baby data	The system denies access and displays a message: “Please create a baby profile first”		
TC_003	TR2: Doctor Login Successful	1. Open the login page. 2. Enter valid email and password. 3. Click “Login”	The doctor successfully logs in and accesses the dashboard		
TC_004	TR2: Doctor Login Failed.	1. Open login page. 2. Enter incorrect credentials. 3. Click “Login”	The system displays an error: “Invalid email or password”		
TC_005	R3: Mom Updates Profile Info Successfully	1. Log in as Mom. 2. Open Manage Profile. 3. Update phone number and click Save	The system updates the information and displays “Profile updated successfully”		
TC_006	TR3: Mom Enters Invalid Info	1. Log in as Mom. 2. Enter invalid email format. 3. Click Save	The system displays: “Invalid email format		

TC_007	TR4: Doctor Updates Profile Info Successfully	1. Log in as Doctor. 2. Edit specialization. 3. Click Save	The system updates and displays: “Profile updated successfully”		
TC_008	TR4: Doctor Enters Invalid Phone.	1. Log in as Doctor. 2. Enter an invalid phone number. 3. Click Save.	The system displays: “Invalid phone number.”		
TC_009	TR5: Mom Leaves Required Fields Empty.	1. Open profile creation. 2. Leave birth date empty. 3. Click Save.	The system displays: “Please fill all mandatory fields.”		
TC_010	TR5: Mom Saves Valid Data.	1. Fill all profile fields correctly. 2. Click Save.	The system saves data successfully.		
TC_011	TR6: Doctor Saves Profile with Missing Fields.	1. Leave specialization empty. 2. Click Save.	The system displays: “Specialization field required.”		
TC_012	TR6: Doctor Saves Valid Profile Data.	1. Enter all required details. 2. Click Save.	The system saves and confirms: “Profile updated successfully.”		
TC_008	TR4: Doctor Enters Invalid Phone.	1. Log in as Doctor. 2. Enter an invalid phone number. 3. Click Save.	The system displays: “Invalid phone number.”		
TC_009	TR5: Mom Leaves Required Fields Empty.	1. Open profile creation. 2. Leave birth date empty. 3. Click Save.	The system displays: “Please fill all mandatory fields.”		
TC_010	TR5: Mom Saves Valid Data.	1. Fill all profile fields correctly. 2. Click Save.	The system saves data successfully.		
TC_011	TR6: Doctor Saves Profile with Missing Fields.	1. Leave specialization empty. 2. Click Save.	The system displays: “Specialization field required.”		
TC_012	TR6: Doctor Saves Valid Profile Data.	1. Enter all required details. 2. Click Save.	The system saves and confirms: “Profile updated successfully.”		

TC_013	TR7: Valid Email Format.	1. Enter correct email format. 2. Save.	The system accepts the email.		
TC_014	TR7: Invalid Email Format.	1. Enter invalid email (e.g., missing @). 2. Save.	The system rejects and shows: “Invalid email format.”		
TC_015	TR8: Valid Phone Number.	1. Enter correct phone format. 2. Save.	The system accepts the phone number.		
TC_016	TR8: Invalid Phone Number.	1. Enter letters instead of numbers. 2. Save.	The system rejects input with message: “Invalid phone number.”		
TC_017	TR9: Profile Update Confirmation.	1. Update profile info. 2. Save.	System displays: “Profile updated successfully.”		
TC_018	TR9: Update Without Changes.	1. Open profile. 2. Click Save without changes.	System does not update and displays: “No changes detected.”		
TC_019	TR10: Unauthorized Update Attempt.	1. Access Manage Profile page without logging in. 2. Try to update info.	System redirects to login page.		
TC_020	TR10: Authorized Update.	1. Log in. 2. Edit info. 3. Save.	System saves successfully.		
TC_021	TR11: Load Existing Data.	1. Open Manage Profile. 2. View existing info.	System loads saved profile data.		
TC_022	TR11: No Data Found.	1. Open Manage Profile before saving any info.	System shows: “No profile data available.”		
TC_023	TR12: Cancel Edit.	1. Edit data. 2. Click Cancel.	System discards changes.		
TC_024	TR12: Save and Cancel Quickly.	1. Click Save then Cancel quickly.	System saves before canceling.		
TC_025	TR13: Server Error While Saving.	1. Edit profile. 2. Disconnect internet. 3. Save.	System shows error: “Unable to save changes. Please try again later.”		
TC_026	TR13: Network Timeout.	1. Attempt save with slow network.	System displays timeout error.		

TC_027	TR14: Mom Deletes Account.	1. Log in as Mom. 2. Go to Delete Profile. 3. Confirm deletion.	System deletes account and shows: "Account deleted successfully."		
TC_028	TR14: Mom Cancels Deletion.	1. Go to Delete Profile. 2. Click Cancel.	System aborts deletion.		
TC_029	TR15: Doctor Deactivates Account.	1. Log in as Doctor. 2. Click Deactivate Account.	System marks doctor as inactive.		
TC_030	TR15: Doctor Deletes Account.	1. Confirm deletion.	System deletes data and shows confirmation message.		
TC_031	TR16: Admin Approves Doctor.	1. Admin reviews doctor docs. 2. Click Approve.	System updates doctor status to "Approved."		
TC_032	TR16: Admin Rejects Doctor.	1. Admin clicks Reject. 2. Enter reason.	System marks as "Rejected" and notifies doctor.		
TC_033	TR17: Doctor Pending Approval.	1. Try to access consultation features before approval.	System blocks access: "Approval pending."		
TC_034	TR17: Approved Doctor Access.	1. Access consultation features after approval.	System allows access.		
TC_035	TR18: Mom Tries Booking with Inactive Doctor.	1. Search inactive doctor. 2. Try to book.	System displays: "Doctor unavailable."		
TC_036	TR18: Mom Books Active Doctor.	1. Search approved doctor. 2. Book consultation.	System confirms booking.		
TC_037	TR19: Invalid File Upload.	1. Upload wrong file type (e.g., .txt).	System rejects and shows: "Invalid file format."		
TC_038	TR19: Large File Upload.	1. Upload file > max limit.	System rejects and shows: "File too large."		
TC_039	TR20: Confirm Deletion Prompt.	1. Click Delete Profile.	System asks for confirmation.		

TC_040	TR20: Cancel Deletion Prompt.	1. Click Cancel in confirmation box.	System cancels deletion.		

5 - Manage Payments

Name	Manage Payments
Type	Essential, Primary
Actors	Mom, Admin
Description	1. Mom allows to complete secure payments for medical services or consultations in the system, such as paying for doctor consultation fees or vaccination scheduling 2. Mom allows to save payment methods for future use. 3. Mom allows to apply promo codes or discounts during checkout for services. 4. Admin manages payment requests and handles refunds to ensure compliance and security. 5. Admin views payment history to monitor transactions and detect issues.
Cross-reference	R1, R2, R3, R4, R5, R6
Preconditions	1. Manage Authentication (successful login). 2. Book Consultation (service booked).
Postconditions	1. Update Service Status (change to "Paid"). 2. Send Receipt Notification (email/SMS).
Alternative Scenario	1. Invalid card details: System shows "Invalid input – retry" and highlights fields (no charge attempted). 2. Payment declined (e.g., insufficient funds): Display "Declined by bank – try another method" and log for Admin review. 3. Network error: Save draft payment, show "Connection lost – resume later" and retry on reconnect. 4. Refund request by Mom: Admin reviews within 24 hours, processes refund, updates status to "Refunded" and notifies Mom. 5. Failed receipt send: Fallback to in-app notification, log error for Admin to fix. 6. Failed data save (e.g., server issue): Rollback transaction, show "Save failed – contact support" and retry option.

List of Cross References:

- R1: Valid registered account (email and password). – The system requires a verified Mom account for payment initiation.
- R2: Verified phone number. – Used for OTP verification during payment confirmation.
- R3: Successful login to the system. – Ensures secure access before processing any transaction.
- R4: User type identified (Doctor or Mom). – Restricts payment to Mom role only.
- R5: Internet/system connection available. – Required for real-time gateway integration (e.g., Stripe).
- R6 (For Payments): Verified payment license and admin approval before transaction activation. – Ensures compliance with financial regulations.

Use Case: Manage Payments – Interaction Scenario Table (Alternative Scenario)

Actor Interactions	System Responses
1. Mom allows to complete secure payments for medical services or consultations in the system, such as paying for doctor consultation fees or vaccination scheduling	2. System provides a list of available services for payment, with alternative suggestions if the selected service is invalid
3. Mom allows to save payment methods for future use.	4. System saves the new method and shows confirmation "Saved successfully", with an edit option if duplicate.
5. Mom allows to apply promo codes or discounts during checkout for services.	6. System applies the code if valid or suggests available alternative codes with potential discount preview.
7. Admin manages payment requests and handles refunds to ensure compliance and security.	8. System sends notification to Admin with the request, with quick options for approval or automatic refund.

9. Admin views payment history to monitor transactions and detect issues.	10. System displays the history with search filters, highlighting new or irregular transactions for quick review.

Test Requirements

ID	Test Requirement	Description / Expected Behavior
TC1	Payment Transaction Completion	Validate that users can initiate and complete payments for services like consultations or vaccinations, with secure processing and confirmation.
TC2	Payment Method Saving	Validate that users can save payment methods securely for reuse, with encryption and easy access in future sessions.
TC3	Discount Application	Validate that promo codes are applied correctly during checkout, updating totals and confirming eligibility.
TC4	Input Validation and Error Recovery	Validate that invalid inputs (e.g., card details) are rejected with clear errors, and recovery options are provided without data exposure.
TC5	Payment History Viewing	Validate that users can view and filter payment history, with accurate logs and search functionality.
TC6	Refund Request Submission	Validate that users can submit refund requests, with validation and immediate status update.
TC7	Refund Processing by Admin	Validate that admins can review and process refunds, updating status and notifying users.
TC8	History Export and Search	Validate that history can be searched, filtered, and exported without performance degradation.
TC9	Security in Failed Transactions	Validate that failed payments do not leak data and log securely for audit.
TC10	Multi-Device History Sync	Validate that payment history syncs across devices with no loss of data.

Alternative Scenario Table

Condition / Event	System Response
If the mom tries to initiate payment without a booked service (e.g., no consultation or vaccination).	The system displays: "You must book a service before payment." and provides a shortcut button to the booking page.
If the payment method is invalid or expired (e.g., expired card).	The system shows: "Card expired or invalid. Please update your payment details." and highlights the field with retry options.
If the payment is declined by the gateway (e.g., insufficient funds).	The system displays: "Payment declined. Try another method or contact support." and logs the attempt without charging.
If the promo code is invalid or expired.	The system notifies: "Invalid or expired code. Proceed without discount or enter a valid one." and continues checkout.
If network connection drops during payment submission.	The system shows "Connection lost. Saving draft..." and retries on reconnect, queuing the transaction until successful.
If database fails during history view.	The system caches local view and retries sync, displaying "Temporary issue. Showing cached data – refreshing soon."
If session expires mid-payment.	The system pauses: "Session expired. Re-login to continue." and resumes draft after authentication.

Test Cases

Test Case ID	Test Scenario	Test Steps	Expected Output	Actual Output	Steps
TC1	Payment Transaction Completion	1. Login as Mom. 2. Go to booked consultation. 3. Click "Pay Now". 4. Select Credit Card. 5. Enter valid test card details (Visa test card number, valid Expiry date, and CVV). 6. Enter billing address. 7. Confirm and submit.	Payment succeeds. Status changes to "Paid". Receipt emailed. Transaction logged securely.		
TC2	Payment Method Saving	1. Login as Mom. 2. During checkout for vaccination, check "Save card". 3. Complete payment with test card. 4. Logout and login again. 5. Start new checkout.	Method saved in profile. Pre-filled in next checkout without re-entry. Encryption confirmed.		
TC3	Discount Application	1. Login as Mom. 2. Proceed to checkout for	Discount (10% off) applied. Total recalculated.		

		consultation. 3. Enter promo "MOM10". 4. Verify discount on total. 5. Complete payment.	Success message shown. Eligibility confirmed.		
TC4	Input Validation and Error Recovery	1. Login as Mom. 2. Proceed to checkout. 3. Enter invalid card "1234-5678-9012-3456". 4. Enter valid expiry/CVV. 5. Click "Pay Now".	Error "Invalid format" shown. Field highlighted. Recovery options (retry/switch method) provided. No data leak.		
TC5	Payment History Viewing	1. Login as Mom. 2. Go to Profile > Payment History. 3. Filter by date (last month). 4. Search by "consultation".	Filtered list shown instantly. Accurate logs and search results with amounts, dates, statuses.		
TC6	Refund Request Submission	1. Login as Mom. 2. Go to Payment History. 3. Select recent transaction (<7 days)	Status updated to "Pending". Email confirmation sent. Request logged with validation.		

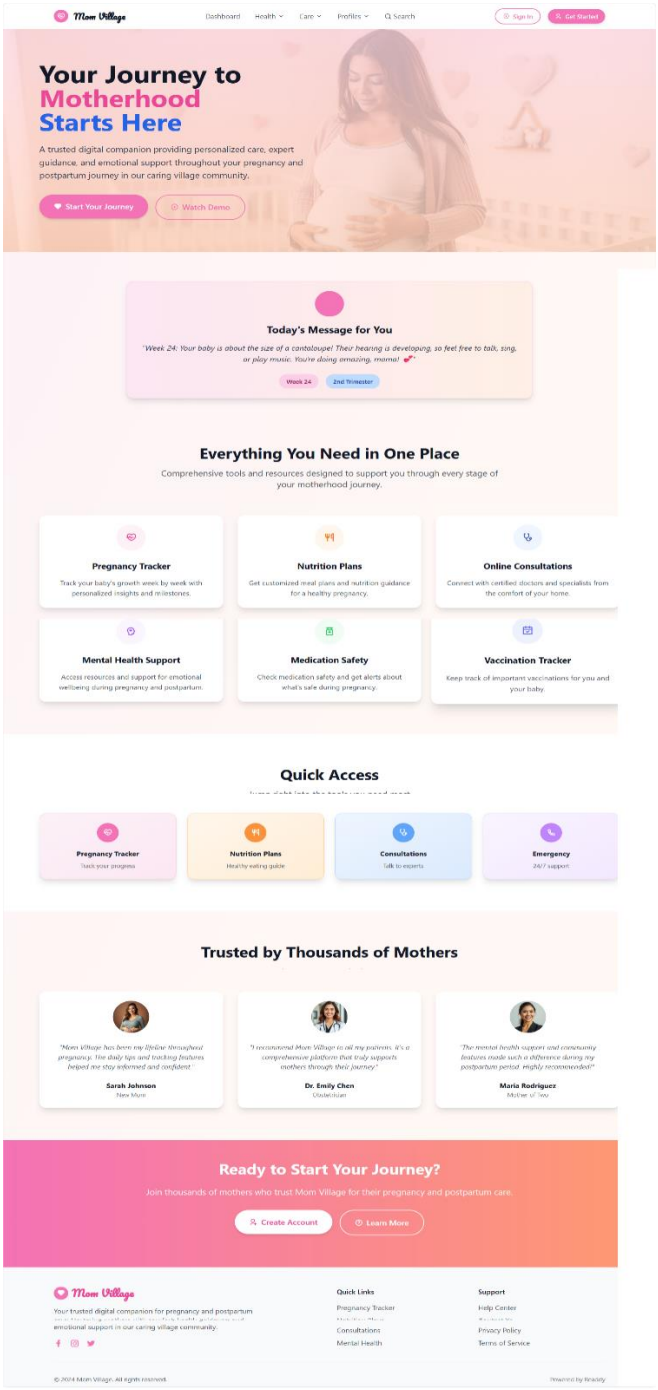
		4. Click "Request Refund". 5. Enter reason. 6. Submit.			
TC7	Refund Processing by Admin	1. Login as Admin. 2. Go to refund review queue. 3. Select pending refund. 4. Review details. 5. Approve with note. 6. Verify Mom status.	Status "Refunded". Amount reversed. Notification to Mom. Audit trail updated.		
TC8	History Export and Validation	1. Login as Mom. 2. Go to Payment History. 3. Apply filter by status ("Pending"). 4. Click "Export CSV". 5. Download and open file.	CSV exported with accurate data (amounts, dates, statuses). No errors or missing records. Performance <2s.		
TC9	Security in Failed Transactions	1. Login as Mom. 2. Enter invalid details (wrong CVV). 3. Submit.	No data leaked. Error logged securely. No charge attempted.		

		4. Verify logs (simulated audit).	Audit trail complete.		
TC10	Multi-Device History Sync	1. Login as Mom on mobile. 2. Make payment. 3. Login on web. 4. Go to Payment History. 5. Verify sync.	History syncs instantly across devices. All transactions visible with no loss.		

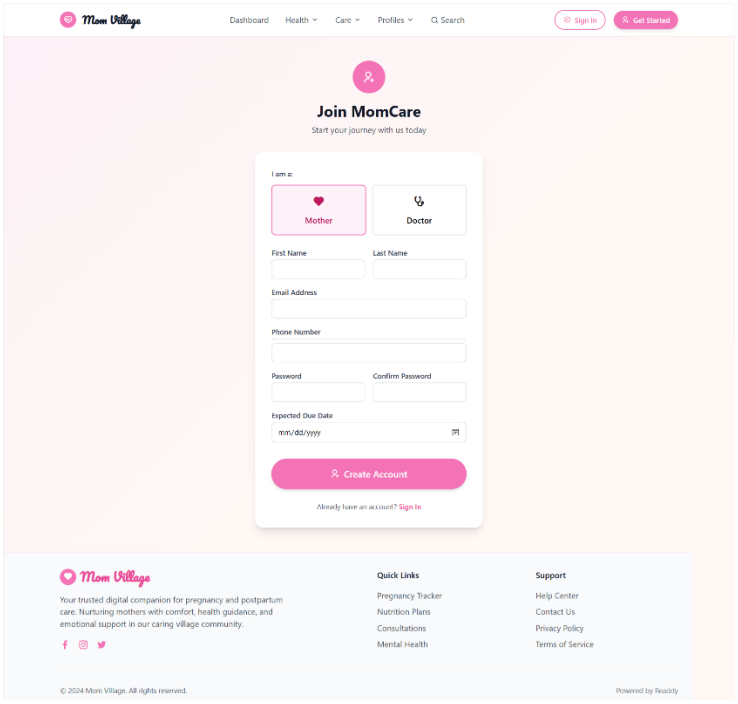
Initial GUI Sketches

Below are some wireframe sketches that demonstrate the expected user interface for the Byte-Jobs System.

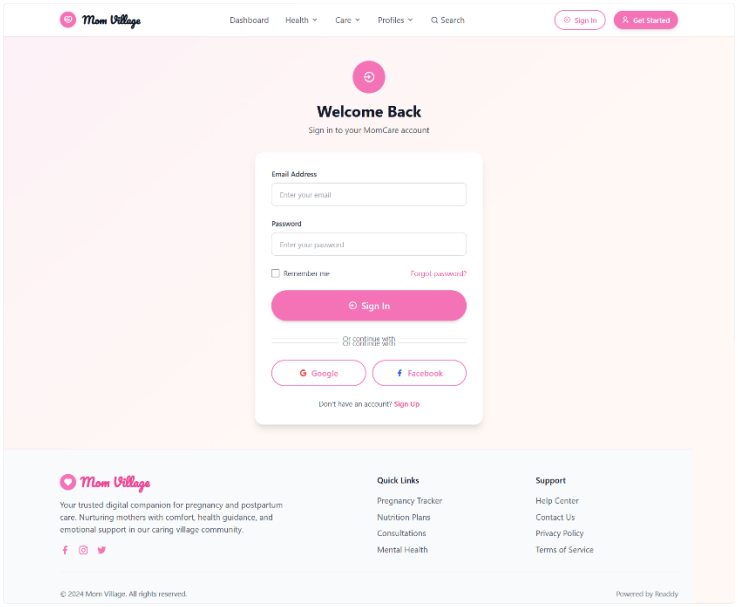
Home Page:


Mom Village
Dashboard
Health
Care
Profiles
Search
Sign In
Get Started
Your Journey to
Motherhood
Starts Here
A trusted digital companion providing personalized care, expert guidance, and emotional support throughout your pregnancy and postpartum journey in our caring village community.
Start Your Journey
Watch Demo
Today's Message for You
"Week 24: Your baby is about the size of a cantaloupe! Their hearing is developing, so feel free to talk, sing, or play music. You're doing amazing, mama! 💕"
Week 24
2nd Trimester
Everything You Need in One Place
Comprehensive tools and resources designed to support you through every stage of your motherhood journey.
Pregnancy Tracker
Track your baby's growth week by week with personalized insights and milestones.
Nutrition Plans
Get customized meal plans and nutrition guidance for a healthy pregnancy.
Online Consultations
Connect with certified doctors and specialists from the comfort of your home.
Mental Health Support
Access resources and support for emotional wellbeing during pregnancy and postpartum.
Medication Safety
Check medication safety and get alerts about what's safe during pregnancy.
Vaccination Tracker
Keep track of important vaccinations for you and your baby.
Quick Access
Pregnancy Tracker
Track your progress
Nutrition Plans
Healthy eating guide
Consultations
Talk to experts
Emergency
24/7 support
Trusted by Thousands of Mothers
"Mom Village has been my lifeline throughout pregnancy. The daily tips and tracking features helped me stay informed and confident."
Sarah Johnson
New Mom
"I recommend Mom Village to all my patients. It's a comprehensive platform that truly supports mothers through their journey."
Dr. Emily Chen
Obstetrician
"The mental health support and community features made such a difference during my postpartum period. Highly recommended!"
Maria Rodriguez
Mother of Two
Ready to Start Your Journey?
Join thousands of mothers who trust Mom Village for their pregnancy and postpartum care.
Create Account
Learn More
Mom Village
Your trusted digital companion for pregnancy and postpartum
emotional support in our caring village community.
Quick Links
Pregnancy Tracker
Consultations
Mental Health
Support
Help Center
Privacy Policy
Terms of Service

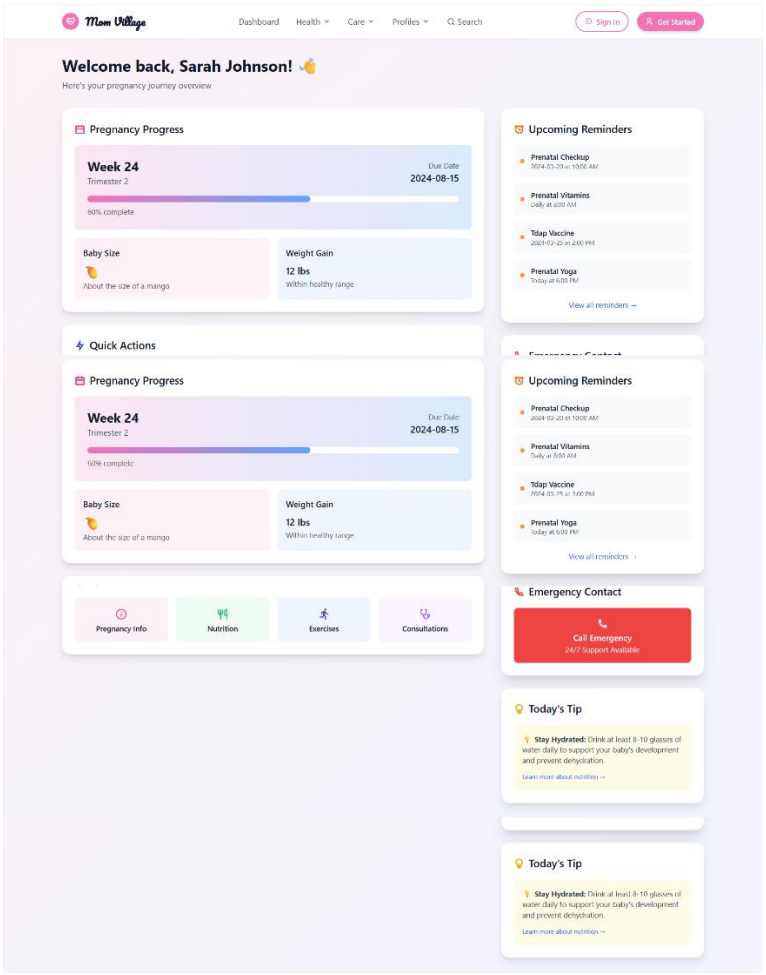
Sign up:



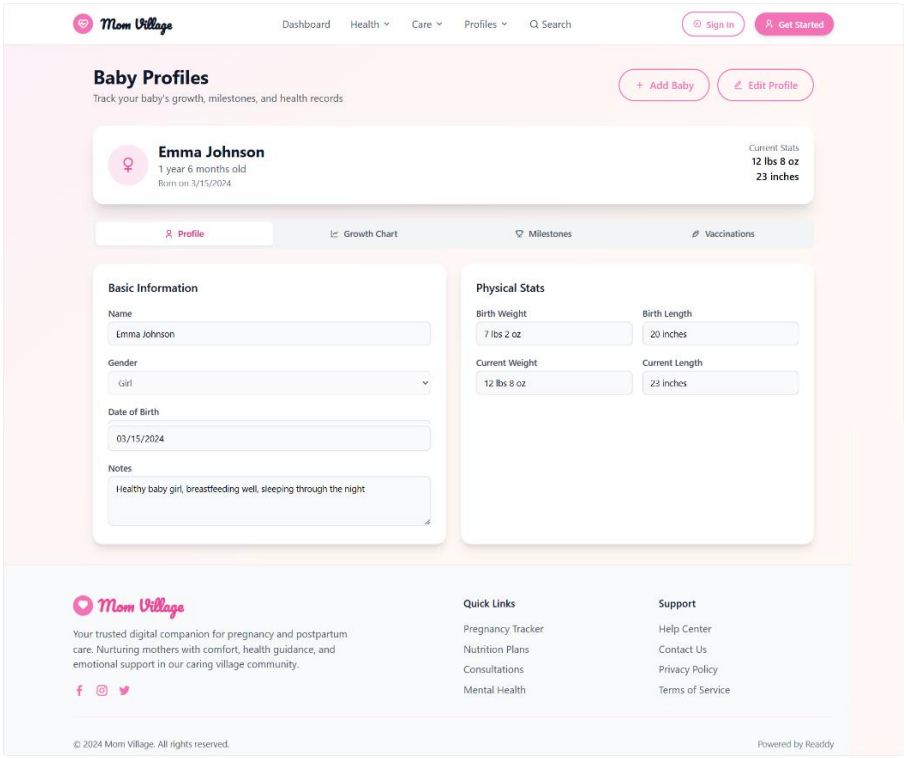
Sign in:



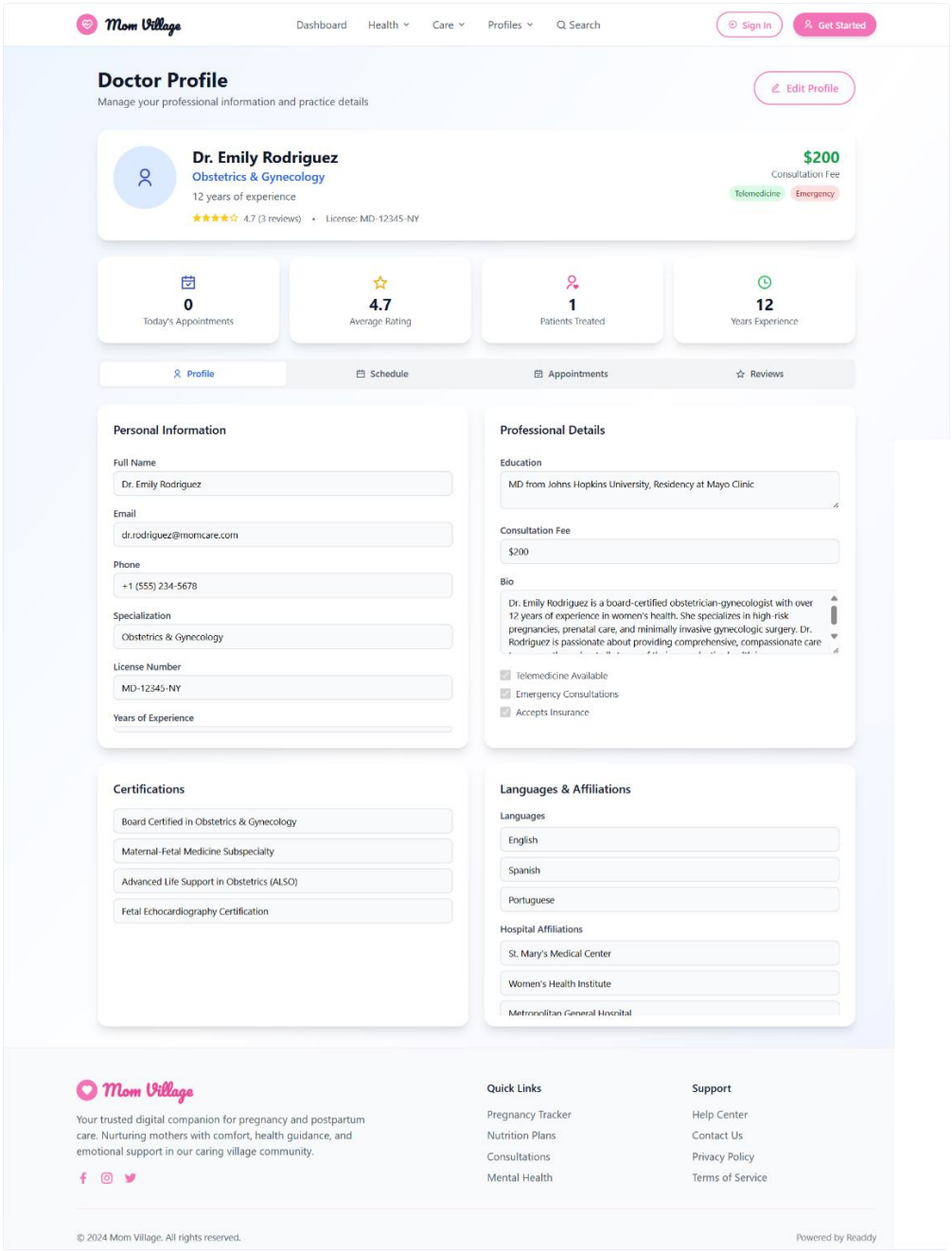
Mother profile:


Mom Village
Dashboard
Health
Care
Profiles
Search
Sign In
Get Started
Welcome back, Sarah Johnson!
Here's your pregnancy journey overview
Pregnancy Progress
Week 24
Trimester 2
Due Date
2024-08-15
60% complete
Baby Size
About the size of a mango
Weight Gain
12 lbs
Within healthy range
Upcoming Reminders
Prenatal Checkup
Prenatal Vitamins
Daily at 8:00 AM
Tdap Vaccine
Prenatal Yoga
Today at 6:00 PM
View all reminders →
Quick Actions
Pregnancy Info
Nutrition
Exercises
Consultations
Emergency Contact
Call Emergency
24/7 Support Available
Today's Tip
Stay Hydrated: Drink at least 8-10 glasses of water daily to support your baby's development and prevent dehydration.
Learn more about nutrition →

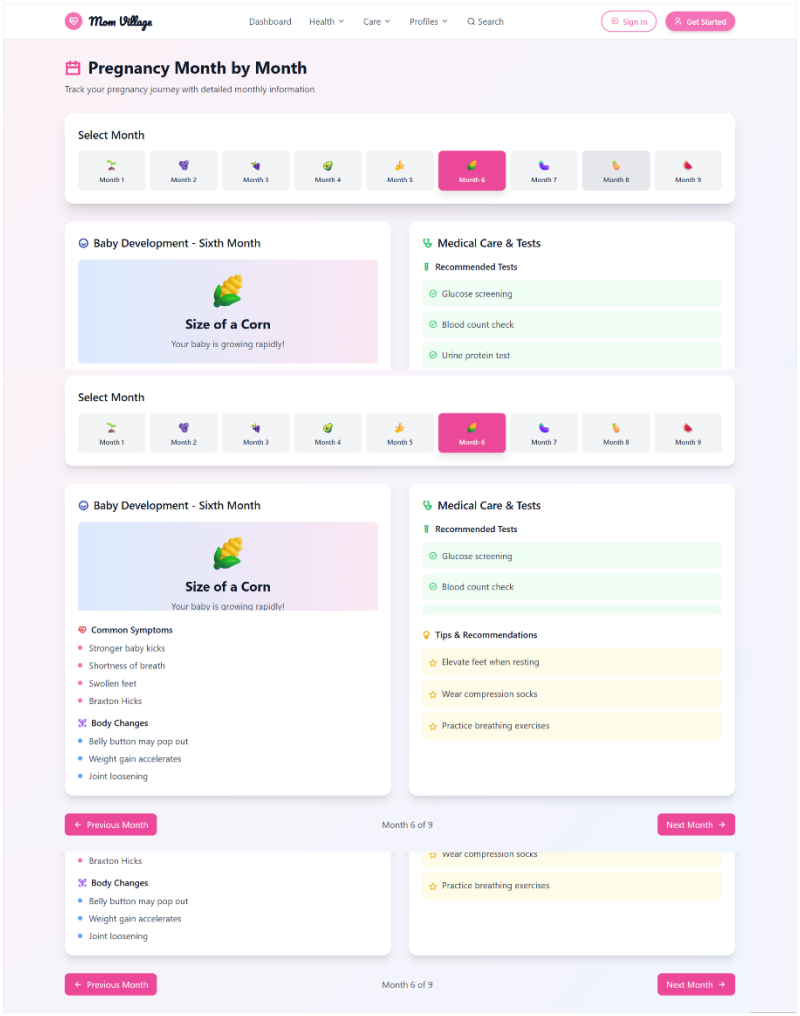
Baby profile:



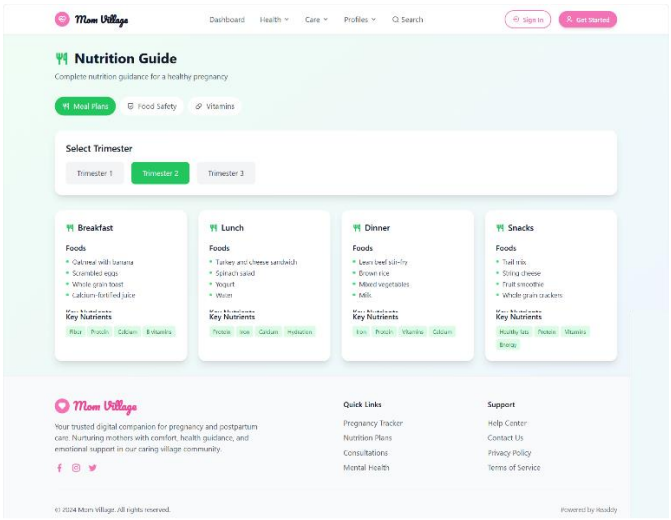
Doctor Profile:



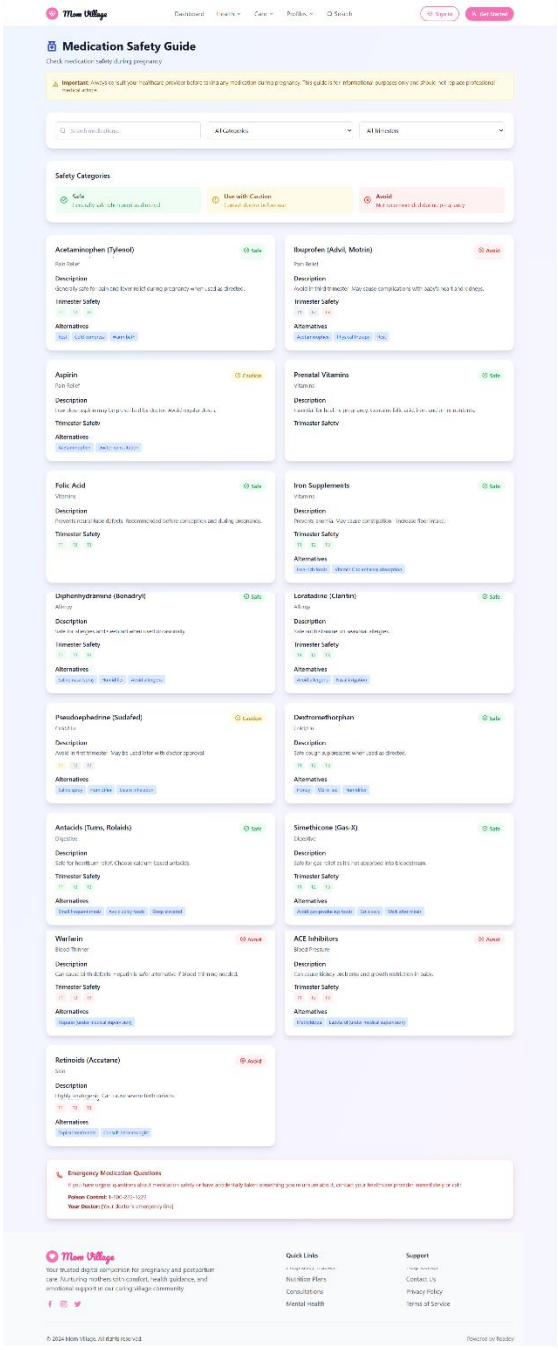
Pregnancy Tracking:



Dietary guidance:



Medication Guide:



Exercise Guide:

Exercise & Mental Health

Safe exercises and mental health support for pregnancy

Exercise Guide | Mental Health | Self Assessment

Trimester
Trimester 1 | Trimester 2 | Trimester 3

Category
All Categories

Prenatal Yoga Flow
beginner

Yoga • 20-30 minutes

Benefits

Improves flexibility | Reduces stress | Better sleep

View Details

Walking Program
beginner

Cardio • 30-45 minutes

Benefits

Cardiovascular health | Weight management | Mood improvement

View Details

Swimming & Water Aerobics
intermediate

Water Exercise • 30-40 minutes

Benefits

Low impact exercise | Reduces swelling | Supports body weight

View Details

Pelvic Floor Exercises
beginner

Strength • 10-15 minutes

Benefits

Prevents incontinence | Supports pelvic organs | Aids in delivery

View Details

Prenatal Pilates
intermediate

Pilates • 25-35 minutes

Benefits

Core strength | Better posture | Balance improvement

View Details

Breathing Exercises
beginner

Relaxation • 10-20 minutes

Benefits

Stress reduction | Better oxygen flow | Labor preparation

View Details

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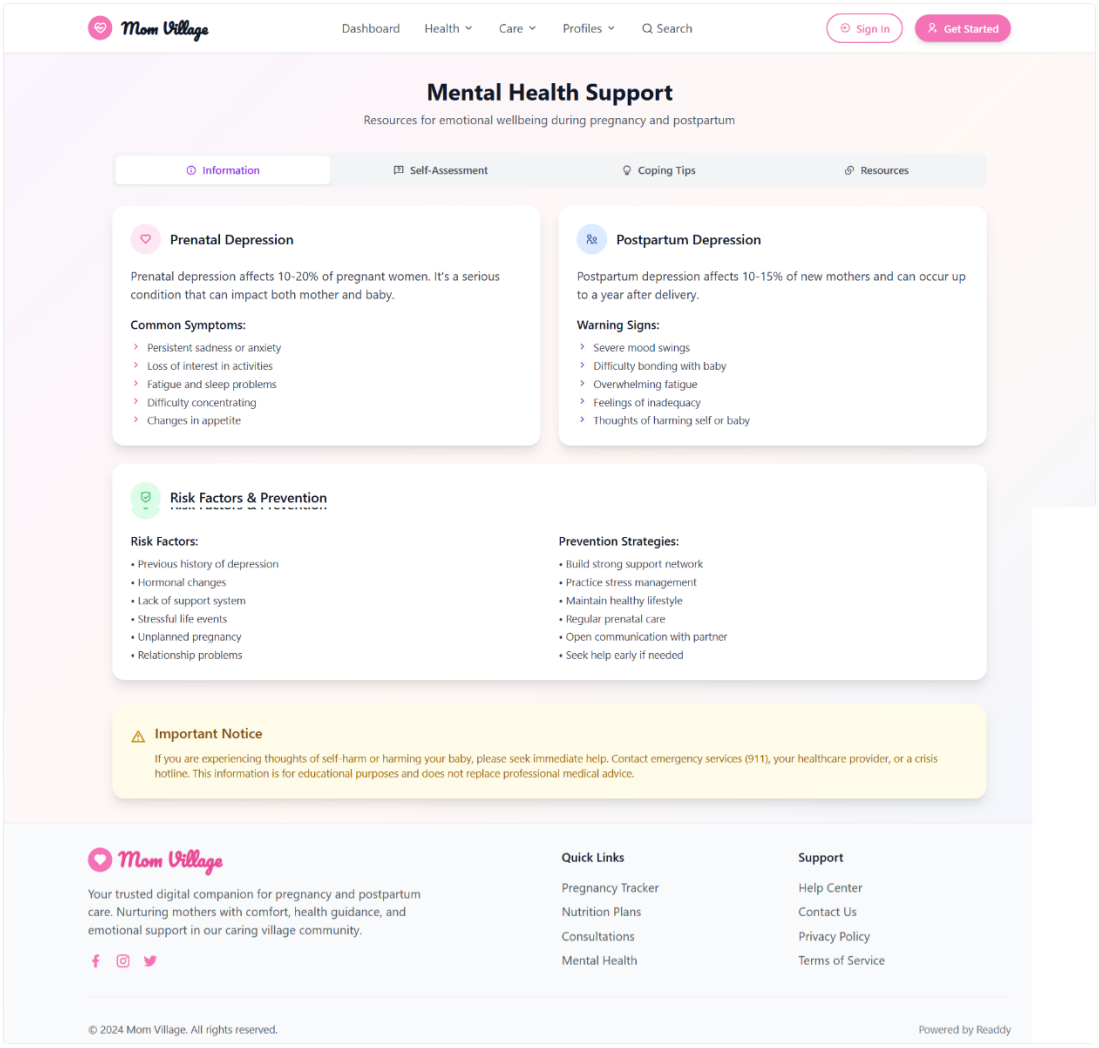
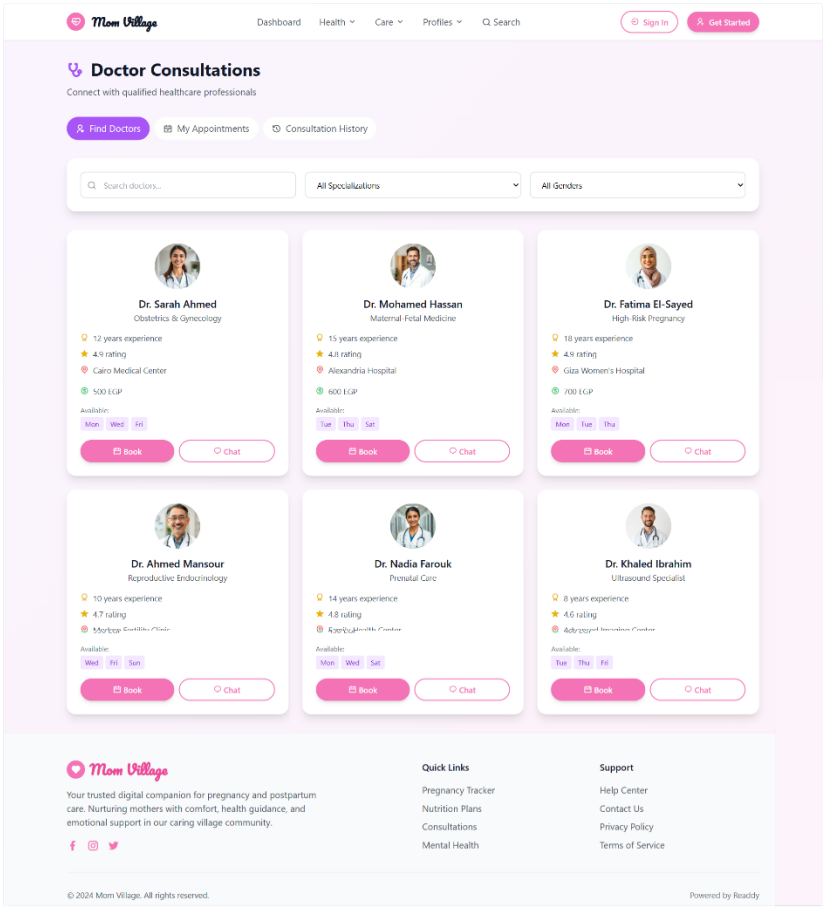
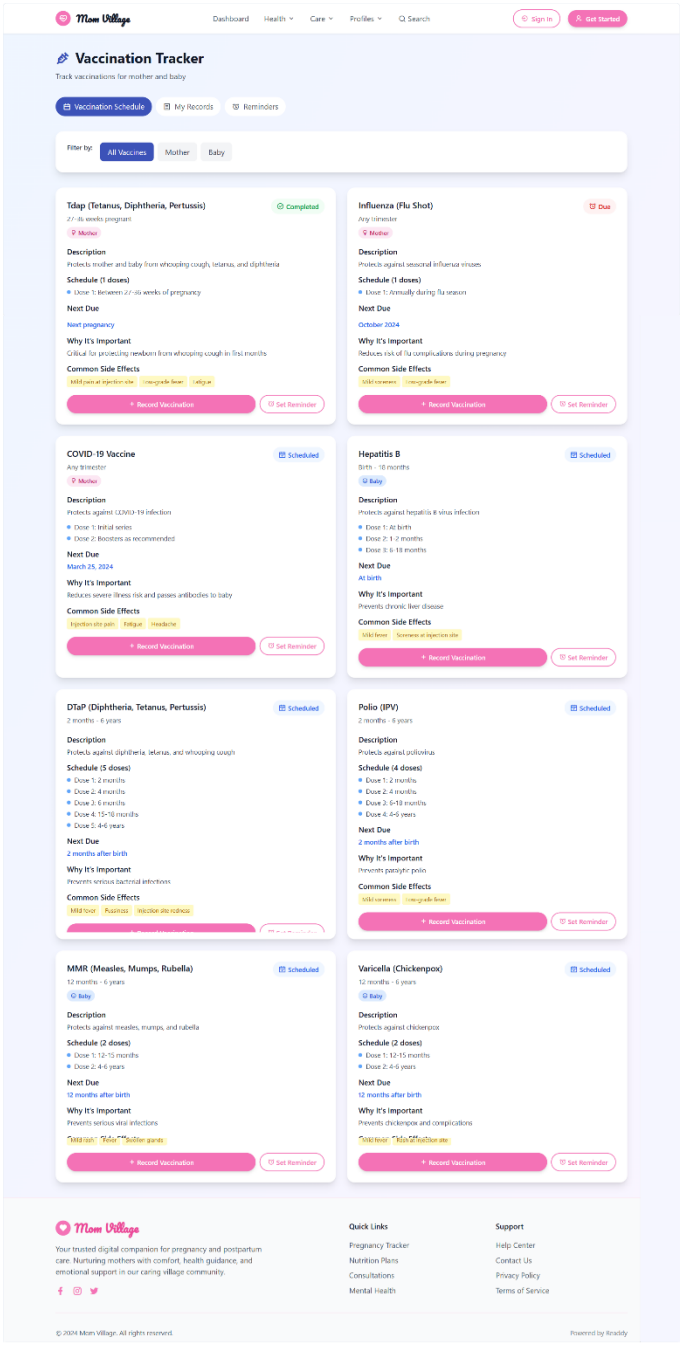
Mental Health Support:



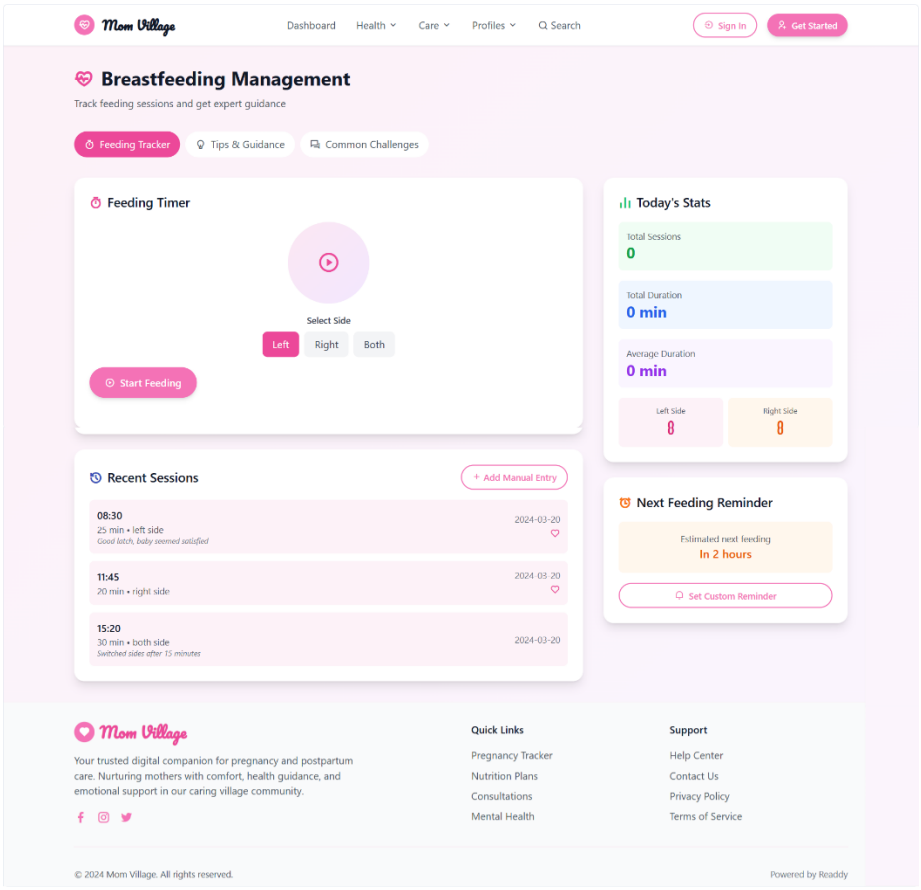
Doctor Consultation:



Vaccination Tracking:



BreastFeading Management:


Mom Village
Dashboard
Health
Care
Profiles
Search
Sign In
Get Started
Breastfeeding Management
Track feeding sessions and get expert guidance
Feeding Tracker
Tips & Guidance
Common Challenges
Feeding Timer
Select Side
Left
Right
Both
Start Feeding
Today's Stats
Total Sessions
0
Total Duration
0 min
Average Duration
0 min
Left Side
0
Right Side
0
Recent Sessions
+ Add Manual Entry
08:30
25 min • left side
Good latch, baby seemed satisfied
2024-03-20
11:45
20 min • right side
2024-03-20
15:20
30 min • both side
Switched sides after 15 minutes
2024-03-20
Next Feeding Reminder
Estimated next feeding
In 2 hours
Set Custom Reminder
Mom Village
Your trusted digital companion for pregnancy and postpartum care. Nurturing mothers with comfort, health guidance, and emotional support in our caring village community.
Quick Links
Pregnancy Tracker
Nutrition Plans
Consultations
Mental Health
Support
Help Center
Contact Us
Privacy Policy
Terms of Service
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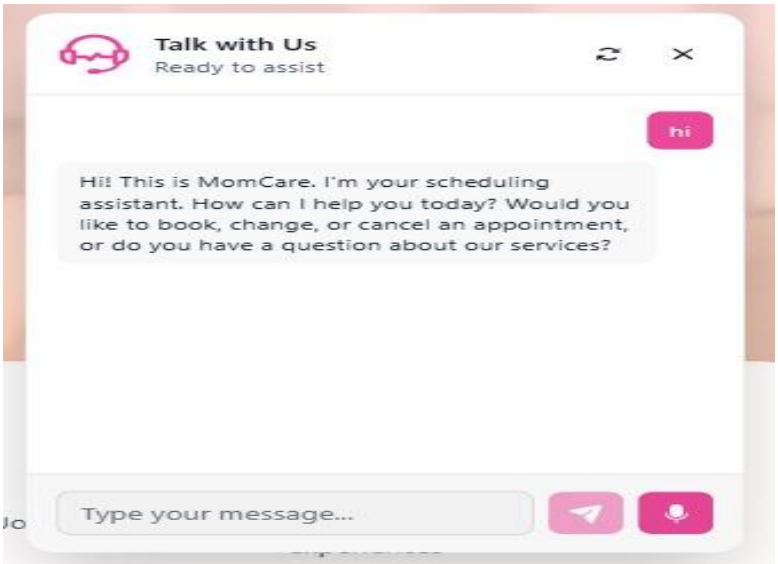
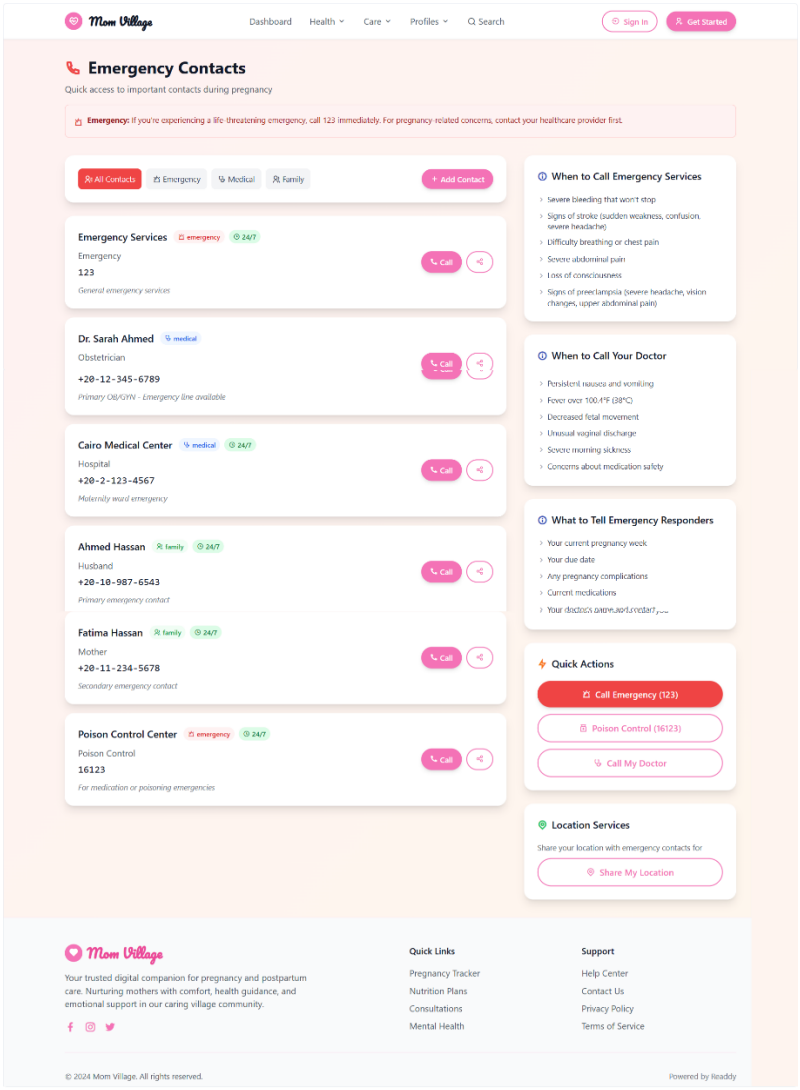
Chatbot:


Talk with Us
Ready to assist
hi
Hi! This is MomCare. I'm your scheduling assistant. How can I help you today? Would you like to book, change, or cancel an appointment, or do you have a question about our services?
Type your message...

Emergancy Contact: