Use case Scenario: system Balance sugar

Use cases:

Name Use Case	**Sign up (new user)**
Primary Actor:	User
Secondary Actor:	None
Description:	A new user creates an account to access the app's features.
Basic flow:	1. User opens the app and navigates to the sign-up screen. 2. User enters their email address, username, password, and other required details. 3. User agrees to the terms and conditions. 4. User clicks on the sign-up button to create an account. **Social Media Sign-Up:** 1. Description: User registers using their existing social media account. 2. Steps: 3. User selects the social media platform they want to sign up with. 4. User grants permission for the app to access their social media account information. 5. User confirms the linked account details. 6. User completes the registration process.
Precondition:	User is registered
Postcondition:	The system display homepage

Name Use Case	**Sign in (User Login)**
Primary Actor:	User
Secondary Actor:	None
Description:	Existing user logs in to access the app's functionalities.
Basic flow:	1. User opens the app and navigates to the sign-in screen. 2. User enters their registered email address and password. 3. User clicks on the sign-in button to log in. **Forgot Password:** User resets their password if forgotten. 1. User clicks on the "Forgot Password" link on the sign-in screen. 2. User enters their registered email address. 3. User receives a password reset link via email. 4. User clicks on the link to reset their password.
Precondition:	User is registered
Postcondition:	The system display homepage

Name Use Case	**Health Recording**
Primary Actor:	User
Secondary Actor:	None
Description:	Allow users to record essential health data such as blood sugar levels, weight, meals, and medication intake.
Basic flow:	1. After User logs in and navigates to the health recording section. 2. User selects the type of data they want to input (static input: blood sugar, weight, medication, meals). 3. User inputs the relevant data. 4. System validates the data (e.g., checks for outliers or inconsistencies). 5. System stores the validated data. 6. System provides feedback or confirmation to the user.
Precondition:	User must be logged in.
Postcondition:	Data is securely stored and available for tracking and analysis

Name Use Case	**Health Tracking**
Primary Actor:	User
Secondary Actor:	Admin
Description:	Provide users with insights and trends based on their recorded health data.
Basic flow:	**USER**: 1. User navigates to the health tracking section. 2. System retrieves stored health data. 3. System analyzes the data to identify trends, patterns, and correlations (e.g., between diet and blood sugar levels). 4. System displays visualizations (charts, graphs) and insights to the user. 5. User reviews and interacts with the data. **Additional Flow - Admin:** 1. Admin accesses the data analytics dashboard. 2. System provides Admin with an overview of user health data analysis. 3. Admin monitors system performance and data accuracy. 4. Admin can intervene in case of data anomalies or errors. 5. Admin ensures that insights provided to users are accurate and relevant. 6. Admin collaborates with the development team to enhance data analysis algorithms and visualizations.
Precondition:	User must have recorded data available for analysis, and data renewed weekly/monthly
Postcondition:	Insights and visual data are presented to the user.

Name Use Case	**Medication Management**
Primary Actor:	User
Secondary Actor:	None
Description:	Help users manage their medication by setting reminders, tracking intake, and checking for interactions.
Basic flow:	1. User navigates to the medication management section. 2. User inputs medication details (name, dosage, schedule). 3. System sets reminders for medication intake. 4. System checks for possible drug interactions. 5. System logs medication intake when confirmed by the user. 6. User reviews their medication history.
Precondition:	User must input their medication details,
Postcondition:	Reminders are set, and medication intake is tracked.

Name Use Case	**Diet Management**
Primary Actor:	User
Secondary Actor:	None
Description:	Assist users in managing their diet by providing personalized plans and nutritional information.
Basic flow:	**USER:** 1. User navigates to the diet management section. 2. User tracks daily meals by inputting what they eat. 3. System provides nutritional information and monitors adherence to the diet plan. 4. system calculates the extent of the rise in blood sugar levels when eating food causes high blood sugar and gives an alert to take treatment and follow up with the doctor.
Precondition:	The app has access to a database of nutritional information for various foods.
Postcondition:	receive personalized diet plans based on diabetes diagnosis and dietary requirements.

Name Use Case	**Diabetic Foot Care Use Case**
Primary Actor:	User
Secondary Actor:	Admin
Description:	Support users in monitoring and managing foot health, a critical aspect for diabetics.
Basic flow:	**USER:** 1. User navigates to the diabetic foot care section. 2. User uploads images of their feet for analysis. 3. System analyzes the images using AI to detect potential issues (e.g., wounds, infections). 4. System provides feedback and recommendations. 5. User tracks the progress of any detected issues over time. 6. System offers educational content on diabetic foot care. **Additional Flow - Admin:** 1. Admin accesses the foot health monitoring dashboard. 2. System provides Admin with an overview of user foot health data and analysis. 3. Admin monitors the accuracy of AI analysis, update algorithm and feedback provided to users.
Precondition:	User must have access to a device with a camera
Postcondition:	Foot health is monitored, and issues are tracked over time

Name Use Case	**Enhanced Chatbot Support**
Primary Actor:	User
Secondary Actor:	Admin
Description:	Provide users with quick answers, medical information, and guidance through a virtual assistant.
Basic flow:	**USER:** 1. User initiates a conversation with the chatbot. 2. User selects or asks a question related to diabetes management. 3. Chatbot retrieves information from its knowledge base or FAQ section. 4. Chatbot provides an answer or guides the user to relevant content. 5. User interacts with the response or asks a follow-up question. **Additional Flow - Admin:** 1. Admin monitors chatbot interactions and performance. 2. Admin reviews user queries and responses provided by the chatbot. 3. Admin analyzes user feedback to improve the chatbot's accuracy and effectiveness. 4. Admin updates the knowledge base with new information and frequently asked questions. 5. Admin intervenes in complex user queries or issues that the chatbot cannot handle. 6. Admin collaborates with healthcare professionals to ensure the medical accuracy of information provided by the chatbot and add references
Precondition:	User must have access to the chatbot.
Postcondition:	User receives accurate and helpful information.

Use case Model