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MedCoTRAC

MIS 6308 – Systems Analysis and Project Management

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GROUP 1

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Executive Summary

Reliance on healthcare has continued to become increasingly important, especially amidst the COVID-19 pandemic. Healthcare workers need to be as efficient as possible and be able to work from the most accurate information. The typical patient check-in process consists of filling out several forms detailing contact and insurance information, medical history, and current medical conditions and medications, which the provider is reliant on being accurate and complete. The time required to complete these forms often increases the wait time for the patient. Personnel at the provider's office must input the information into the patient's records, which can be a manual process. While some medical providers have implemented various technology to expedite this process in their individual practice, providers tend to work in silos and the processes are not consistent across all providers.

Our proposed solution is to provide an application that can store and centrally manage this data. The application will have a web component and mobile app. Patients or designated caregivers can enter the patient's medical history details, which the app will store securely. The data can then be accessed by any medical provider or caregiver the patient authorizes. Providers will be able to update the medical history during an appointment. Patients will also be able to view information about the provider. The system will incorporate medical IoT devices such as FitBit and other smart devices that can connect to the application and upload their data, which the application will use to generate reports and trending information for statistical analysis.

The main benefits of this application are to automate a typically manual task and aggregate medical data. For patients, this application can provide a centralized repository of medical information and can reduce the need of filling out the same intake forms repeatedly, thus reducing preparation time spent, and for providers, administrative time. In addition, for medical providers, the application can provide statistics on a patient's medical data, allowing better analysis of patients' health.

Problem Statement

The existing system used by medical providers requires patients to manually complete their medical history, contact information, insurance details, current medications, et cetera, during each visit, and there is no centralized system which stores the relevant information. Any mistake made by the patient in completing the forms may also lead to incorrect diagnosis by the doctors.

Once a patient is discharged after treatment the medical providers can no longer monitor vital health stats such as heart rate, physical activity, or sleep cycle as there is no such system which enables on demand statistical analysis of patients' health data. With no access to such data medical providers don't really know if the prescribed medication is working effectively unless the patient revisits them.

Objectives

We intend to create a system which will allow patients to store their medical history, contact information, and current medications in a centralized application. Whenever any patient visits any medical provider, they will grant access to the medical provider to view their data. This will make the check in process very smooth.

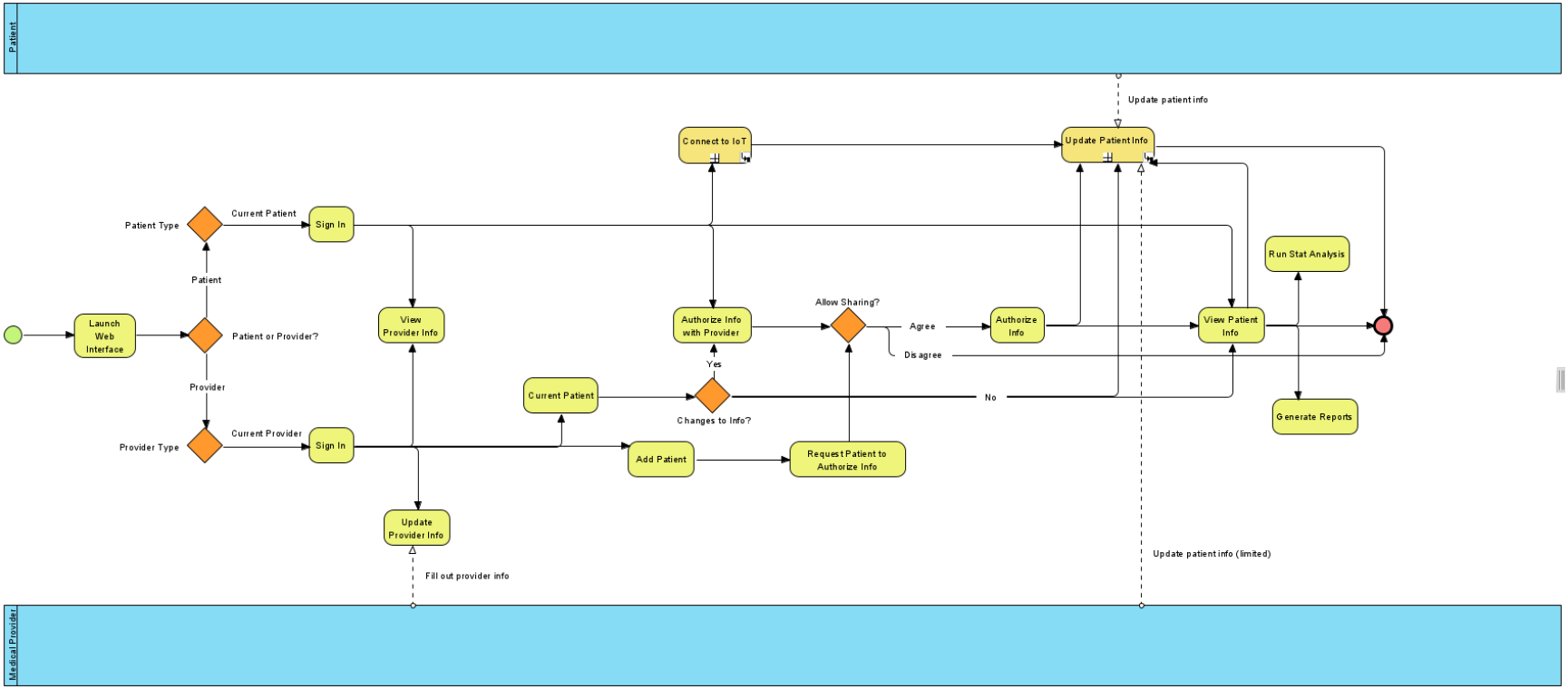
The medical provider can also update the procedures undertaken at their facility which will get saved in our application. The patient can also link our application to any IOT device like Apple watch, Fitbit, or smart blood pressure gadgets, and this data can be uploaded to the application to allow the medical providers to continually monitor vital stats of patient. By using this feature the doctors can remotely monitor if the prescribed treatment is working properly.

Scope

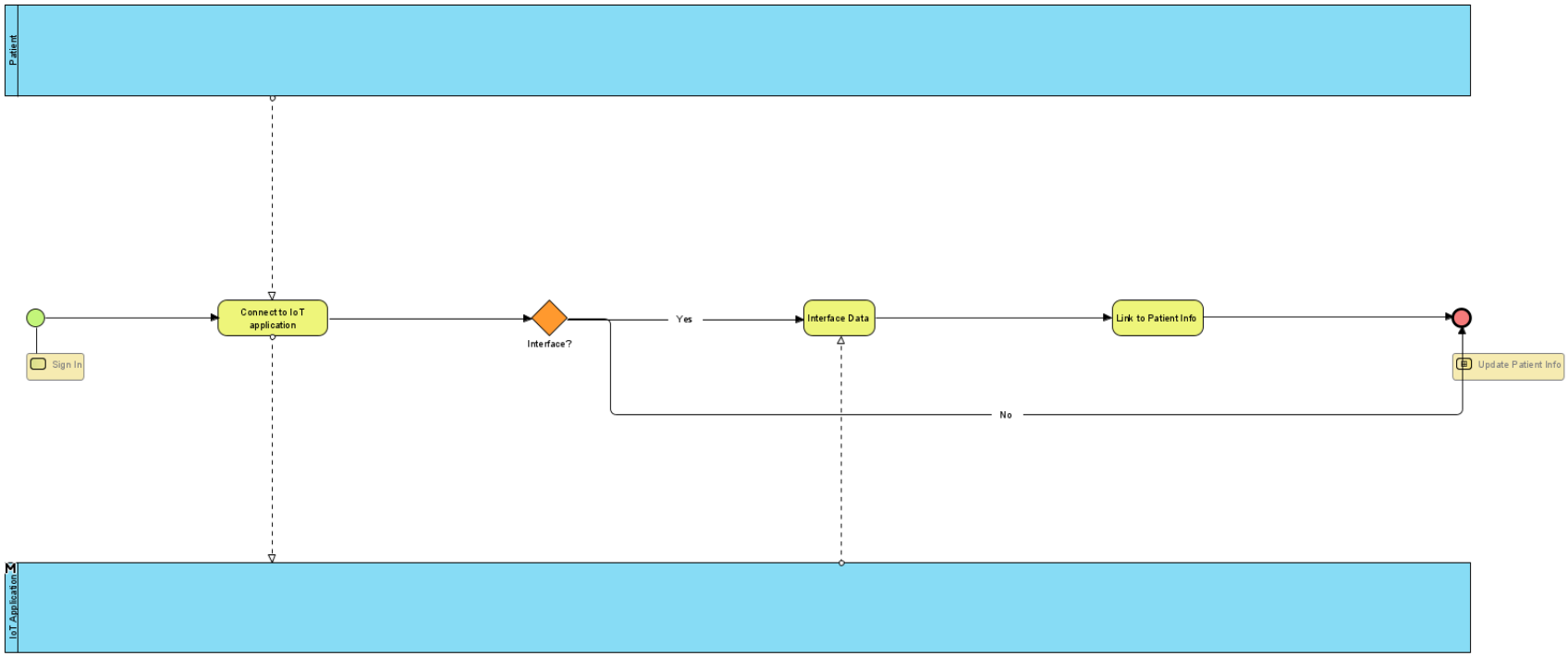
Estimated cost of the project is about $170,000 planned to be completed in 4 months by a team of 5 members. The system requires database servers for storing the medical data and web servers for hosting the application.

Business Process Model

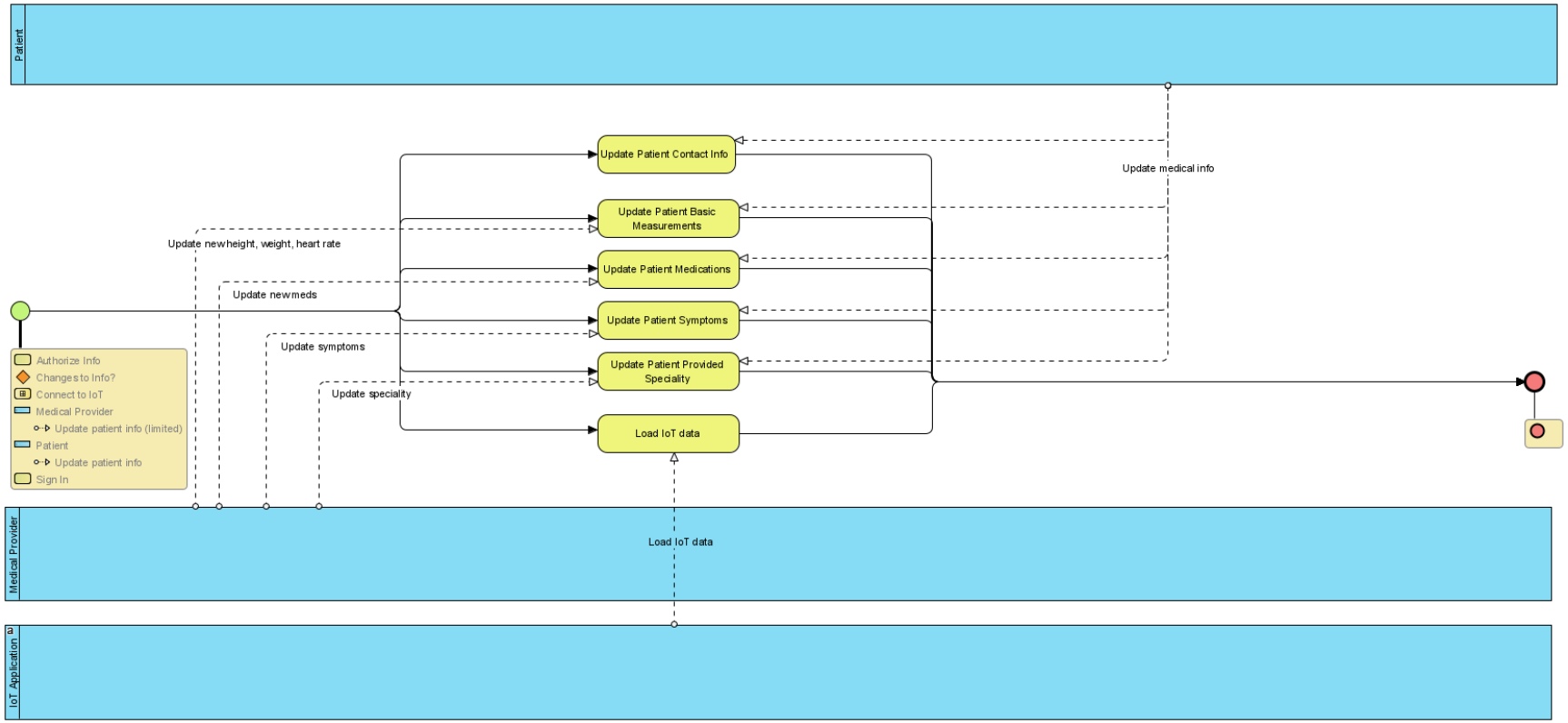
Main Business Process



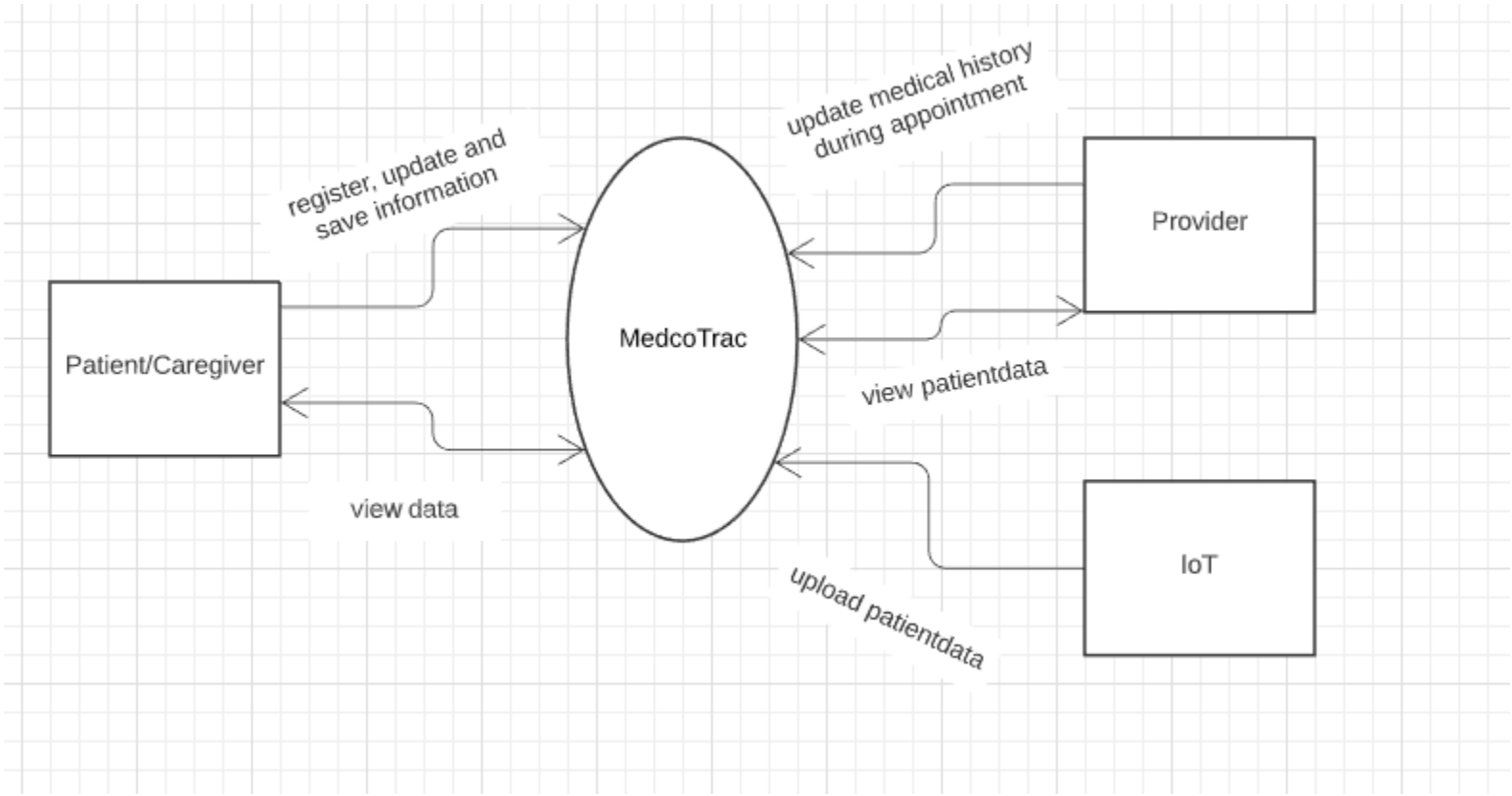
Connect to IoT Subprocess



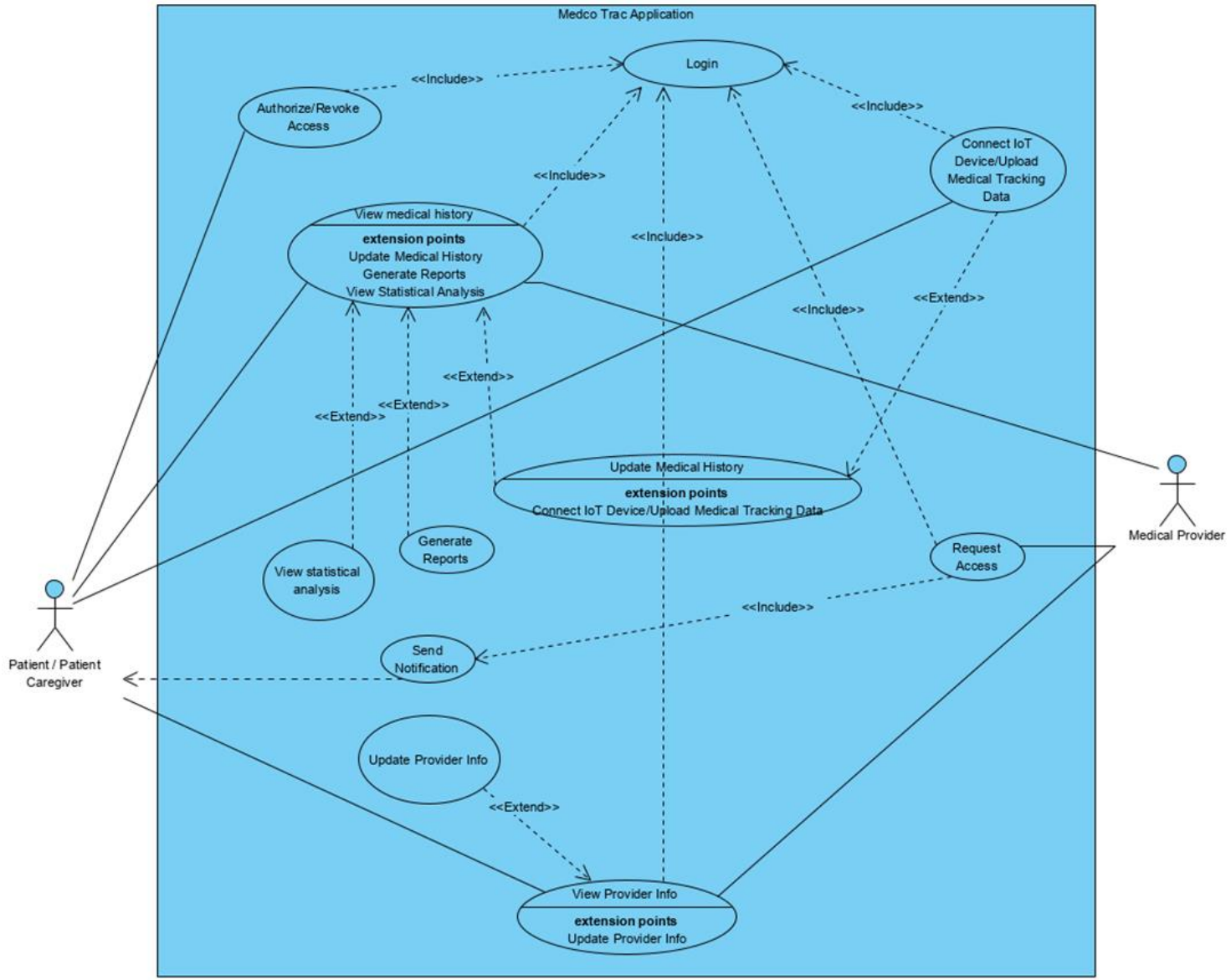
Update Patient Info Subprocess



Context Diagram



Use Case Diagram



Use Case Descriptions

Use Case 1: View Medical History

Use Case Name: View Medical History
Primary Actor: Patient / Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Displays patient's medical history details
Trigger: Patient or medical provider selects to view patient's medical history
Relationships: **Includes:** Login **Extends:** Update Medical History View Statistical Analysis Generate Reports
Normal Flow of Events: 1. If not already logged in, execute Login use case. 2. System displays homepage and options menu. 3. Patient or medical provider selects View Medical History, then View Report. 4. Execute Generate Reports use case.
Exception Flow:

Use Case 2: Authorize/Revoke Access

Use Case Name: Authorize/Revoke Access
Primary Actor: Patient
Stakeholders: Patient / Medical Provider
Brief Description: Allows patient to authorize or revoke a medical provider's access to patient's medical history data
Trigger: Authorize: Medical provider requests access to patient's medical history. System sends notification to patient. Or Patient searches for medical provider and selects to Authorize Access. Revoke: Patient selects to revoke medical provider's access to patient's medical history data
Relationships: **Includes:** Login **Extends:**
Normal Flow of Events: Authorize Access: 1. Execute Request Access use case.

2. If patient not already logged in, execute Login use case.
3. Patient sees notification on homepage that a medical provider has submitted an access request.
4. Patient selects Authorize/Revoke Access.
5. Patient authorizes access request.

Else

3.1 Patient selects Authorize/Revoke Access.
3.2 Patient searches for Provider by name or phone number.
3.3 Patient selects Authorize Access.

Revoke Access:

1. If not already logged in, execute Login use case.
2. System displays homepage and options menu.
3. Patient selects Authorize/Revoke Access.
4. Patient finds medical provider in authorized providers list.
5. Patient selects revoke access on provider he/she no longer wants to have access.

Exception Flow:

Use Case 3: Login

Use Case Name: Login
Primary Actor: Patient / Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Patient or medical provider enters credentials to access Medco Trac application.
Trigger: Patient or medical provider enters credentials to access Medco Trac application.
Relationships: **Includes:** **Extends:**
Normal Flow of Events: 1. Select patient or medical provider. 2. System displays login screen. 3. Patient or medical provider enters username and password. 4. System verifies username and password. 5. System displays homepage and options menu.
Exception Flow: 4A. Authentication attempt fails. System displays invalid username and/or password error message.

Use Case 4: Generate Reports

Use Case Name: Generate Reports

Primary Actor: Patient / Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Creates reports of medical history data
Trigger: Patient or medical provider selects to create a report of patient's medical history data
Relationships: **Includes:** **Extends:**
Normal Flow of Events: 1. If not already logged in, execute Login use case. 2. System displays homepage and options menu. 3. Patient or medical provider selects View Medical History. 4. Patient or medical provider selects View Report. 5. Patient enters timeframe and criteria for report. 6. System retrieves patient's medical history details from patient file based on timeframe and criteria and generates report. Else 5.1 Medical provider enters full name and DOB of patient to view. 5.2 System checks for patient file. 5.3 System verifies medical provider is authorized. 5.4 Medical provider enters timeframe and other optional criteria for report. 5.5 System retrieves patient's medical history details from patient file based on timeframe and criteria and generates report. .
Exception Flow: 5.2A If patient file does not exist, system displays Patient Not Found Message. 5.3A If medical provider not already authorized, execute Request Access use case.

Use Case 5: View Statistical Analysis

Use Case Name: View Statistical Analysis
Primary Actor: Patient / Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Provides trending and statistical analysis of patient's medical history data
Trigger: Patient or medical provider wants to view statistical analysis of patient's medical history data
Relationships: **Includes:** **Extends:**

Normal Flow of Events:

1. If not already logged in, execute Login use case.
2. System displays homepage and options menu.
3. Patient or medical provider selects View Medical History.
4. Patient or medical provider selects View Statistical Analysis.
5. Patient enters timeframe and criteria for statistical analysis.
6. System retrieves patient's medical history details from patient file based on timeframe and criteria and generates statistical analysis chart.

Else

5.1 Medical provider enters full name and DOB of patient to view.
5.2 System checks for patient file.
5.3 System verifies medical provider is authorized.
5.4 Medical provider enters timeframe and other optional criteria for statistical analysis.
5.5 System retrieves patient's medical history details from patient file based on timeframe and criteria and generates statistical analysis chart.

Exception Flow:

5.2A If patient file does not exist, system displays Patient Not Found Message.
5.3A If medical provider not already authorized, execute Request Access use case.

Use Case 6: Send Notification

Use Case Name: Send Notification
Primary Actor: System
Stakeholders: Patient / Medical Provider
Brief Description: Sends notification to patient of medical provider's access request
Trigger: Medical provider requests access to patient's medical history data
Relationships: **Includes:** **Extends:**
Normal Flow of Events: 1. Execute Request Access use case. 2. System displays notification for patient that an access request is awaiting approval.
Exception Flow:

Use Case 7: Request Access

Use Case Name: Request Access
Primary Actor: Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Allows medical provider to request access to patient's medical history data
Trigger: Medical provider requests access to patient's medical history data
Relationships: **Includes:** Send notification Login **Extends:**
Normal Flow of Events: 1. If not already logged in, execute Login use case. 2. System displays homepage and options menu. 3. Medical provider selects Request Access to a Patient's Medical History. 4. Medical provider enters full name and DOB of patient. 5. System checks for patient file. 6. Execute Send Notification use case.
Exception Flow: 5A. If patient file does not exist, system displays Patient Not Found Message.

Use Case 8: Update Medical History

Use Case Name: Update Medical History
Primary Actor: Patient / Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Updates patient's medical history data.
Triggers: Medical provider or patient wants to update patient's medical history data.
Relationships: **Includes:** **Extends:** Connect IoT Device/Upload Medical Tracking Data
Normal Flow of Events: 1. Patient or medical provider selects View Medical History, then Update Medical History. 2. If the patient, system displays a form used to update the patient's medical history details. Else 4.1 Medical provider enters full name and DOB of patient to update. 4.2 System checks for patient file. 4.3 System displays a form used to update the patient's medical history details.

Exception Flow: 4.2A If patient file does not exist, system displays Patient Not Found Message.

Use Case 9: Connect to IoT Device/Upload Medical Tracking Data

Use Case Name: Connect IoT Device /Upload Medical Tracking Data
Primary Actor: Patient
Stakeholders: Patient / Medical Provider
Brief Description: Patient connects medical IoT device to application and uploads medical tracking data.
Trigger: Patient connects medical IoT device to application that has data to upload.
Relationships: **Includes:** Login **Extends:**
Normal Flow of Events: 1. If not already logged in, execute Login use case. 2. System displays homepage and options menu. 3. Patient selects Connect IoT Device. 4. Patient connects medical IoT device to Medco Trac application via Bluetooth. 5. Patient selects Upload Medical tracking data. 6. Medical IoT device uploads medical tracking data to application. 7. System updates patient file with uploaded medical tracking data.
Exception Flow:

Use Case 10: Update Provider Info

Use Case Name: Update Provider Info
Primary Actor: Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Updates medical provider's info.
Triggers: Medical provider wants to update his/her info.
Relationships: **Includes:** **Extends:**
Normal Flow of Events: 1. If not already logged in, execute Login use case.

2. System displays homepage and options menu. 3. Medical provider selects View Provider Info. 4. System retrieves provider file and displays provider info. 5. Medical provider selects Update Info.
Exception Flow:

Use Case 11: View Provider Info

Use Case Name: View Provider Info
Primary Actor: Patient / Medical Provider
Stakeholders: Patient / Medical Provider
Brief Description: Displays medical provider's info.
Triggers: Medical provider or patient wants to view medical provider's info.
Relationships: **Includes:** Login **Extends:** Update Provider Info
Normal Flow of Events: 1. If not already logged in, execute Login use case. 2. System displays homepage and options menu. 3. Patient or medical provider selects View Provider Info. 4. If provider, system displays provider info retrieved from provider file. Else 4.1 Patient finds medical provider in authorized providers list. 4.2 System retrieves provider file and displays provider info.
Exception Flow:

Data Dictionary

Use Case 1: View Medical History

Options Menu = [Patient Menu | Provider Menu]

View Medical History = PatientID + Timeframe + (Criteria)

Timeframe = 0{Record Date}2

Record Date: data element

Criteria = ({Specialty}) + (Weight) + (Height) + (Heart Rate) + (Blood Pressure) + ({Symptom}) + ({Medication}) + (Sleep)

Specialty: data element

Weight: data element

Height: data element

Heart Rate: data element

Blood Pressure: data element

Symptom: data element

Medication: data element

Sleep: data element

Report = Report ID + Report Date + View Medical History

Report ID: data element

Report Date: data element

Use Case 2: Authorize/Revoke Access

Notification = Date + message(string)

Authorize Access = Access Request

Access Request = PatientID + ProviderID + AuthorizationID + Access Level + Date Granted + (Date Revoked)

AuthorizationID: data element

Access Level = [Authorized | Not Authorized]

Date Granted: data element

Date Revoked: data element

Provider Search = Provider Name + Provider Phone

Authorized Provider = Access Request

Use Case 3: Login

Username: data element

Password: data element

Login Info = Username + Password + [PatientID | ProviderID]

PatientID: data element

Provider ID: data element

Options Menu = [Patient Menu | Provider Menu]

Patient Menu = Login Info + Update Patient Medical History + View Patient Medical History + View Report + View Statistical Analysis + Authorize/Revoke Access + Connect IoT + View Provider Info

Provider Menu = Login Info + Update Provider Info + View Provider Info + Update Patient Medical History + View Patient Medical History + View Report + View Statistical Analysis + Provider Request Access

Use Case 4: Generate Reports

Medical History Details = Reports

Patient File = PatientID + Patient Name + Patient Address + Patient DOB + (Patient SSN) + (Patient Gender) + (Patient Email)

Patient Name = Patient First Name + Patient Last Name

Patient First Name: data element

Patient Last Name: data element

Patient Address: data element

Patient DOB: data element

Patient SSN: data element

Patient Gender: data element

Patient Email: data element

Use Case 5: View Statistical Analysis

Statistical Analysis = Statistical Report ID + View Patient Medical History

Statistical Report ID: data element

Statistical Analysis Chart = Statistical Analysis + (Average Sleep) + (Average Heart Rate) + (Modal Blood Pressure)

Average Sleep: data element

Average Heart Rate: data element

Modal Blood Pressure: data element

Use Case 6: Send Notification

Authorization Notification = Access Level

Use Case 7: Request Access

Provider Request Access: Patient Name + Patient DOB + Access Request

Use Case 8: Update Medical History

Update Patient Medical History = RecordID + Record Date + Criteria

RecordID: data element

Form = Record Date + Criteria

Use Case 9: Connect IoT Device/Upload Medical Tracking Data

Connect IoT = DeviceID + IoT Date + Medical Tracking Data

Medical Tracking Data = Reading ID + (IoT Heart Rate) + (IoT Blood Pressure) + (IoT Sleep)

DeviceID: data element

IoT Date: data element

ReadingID: data element

IoT Heart Rate: data element

IoT Blood Pressure: data element

IoT Sleep: data element

Use Case 10: Update Provider Info

Update Provider Info = Provider File

Provider File = ProviderID + Provider Name + Provider Address + (Provider Description) + (Provider Type) + (Provider Email) + (Provider Phone)

Provider Name: data element

Provider Address: data element

Provider Description: data element

Provider Type: data element

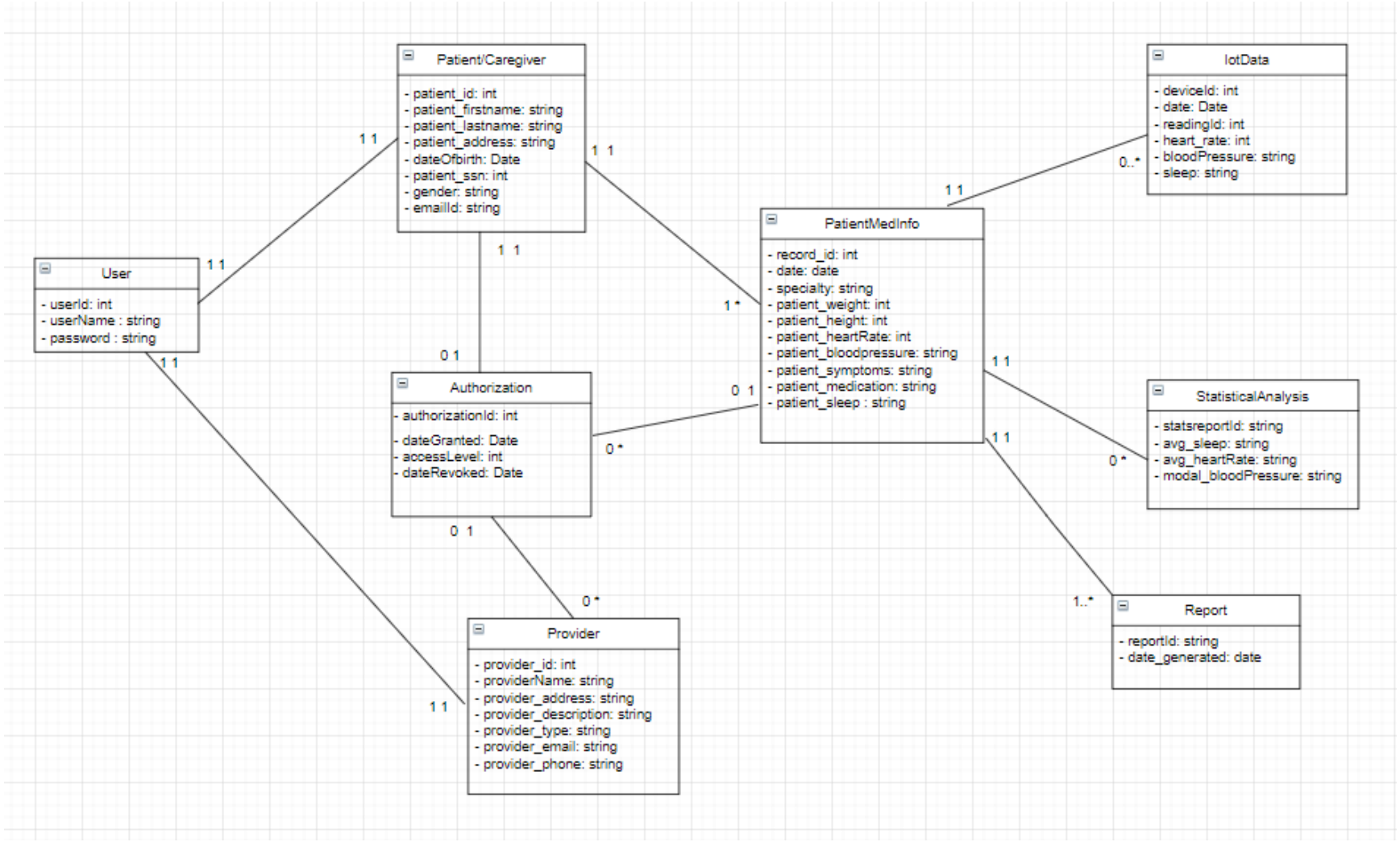
Provider Email: data element

Provider Phone: data element

Use Case 11: View Provider Info

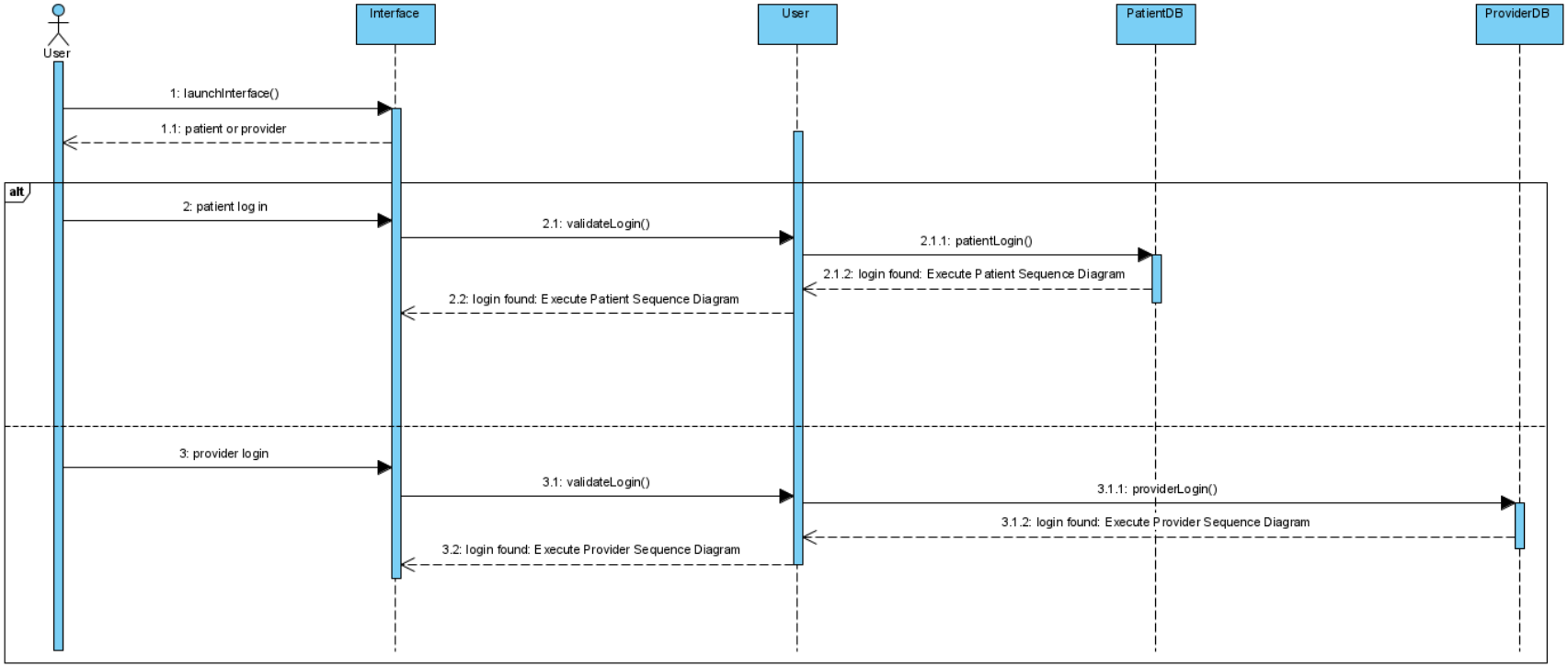
View Provider Info = Provider File

Class Diagram (Without Methods)

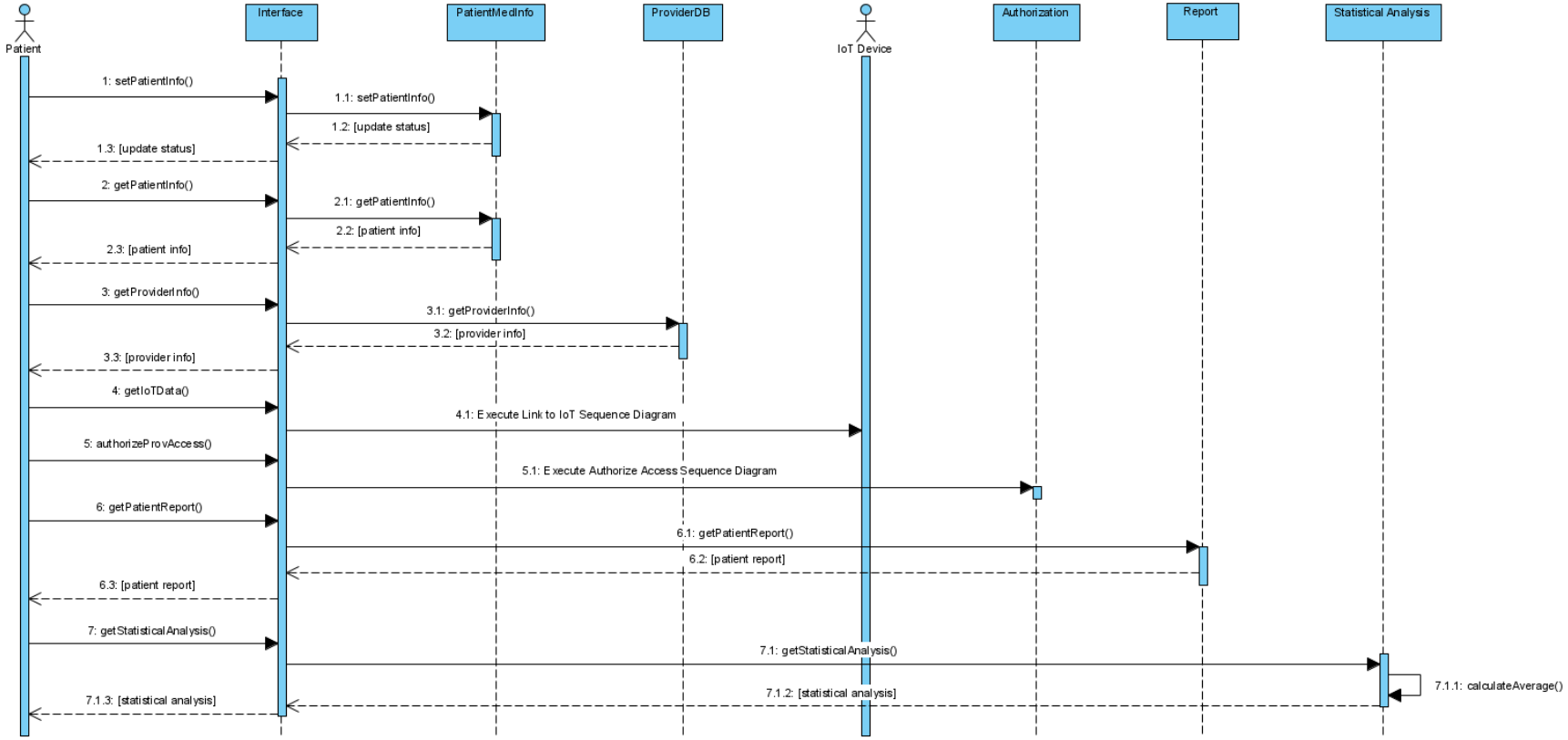


Sequence Diagrams

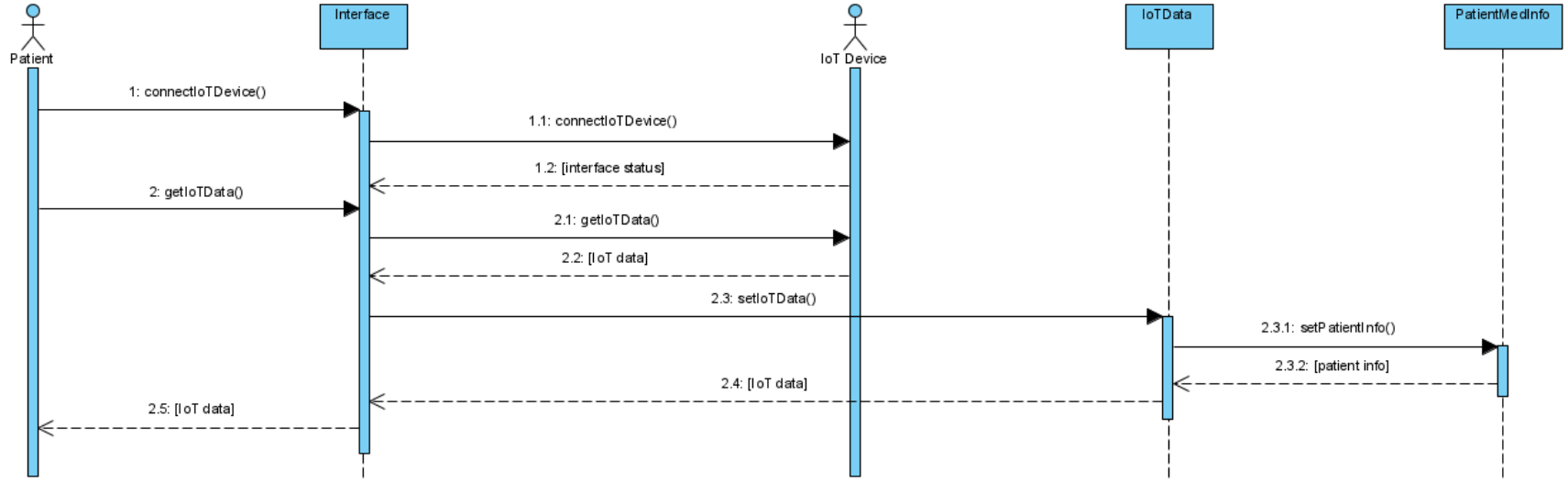
Main Sequence Diagram



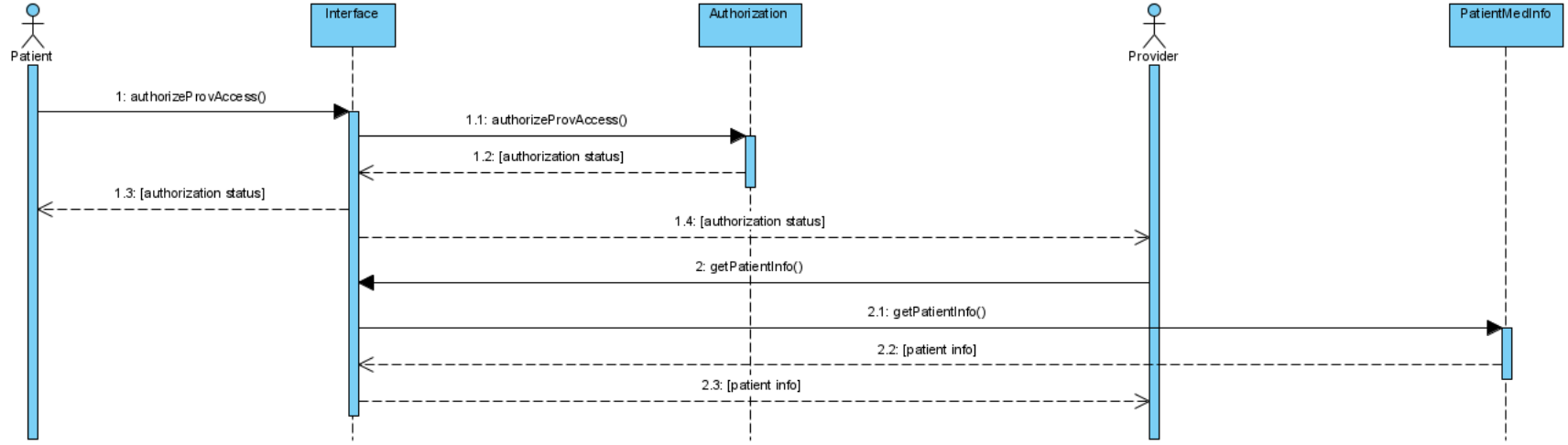
Patient Sequence Diagram



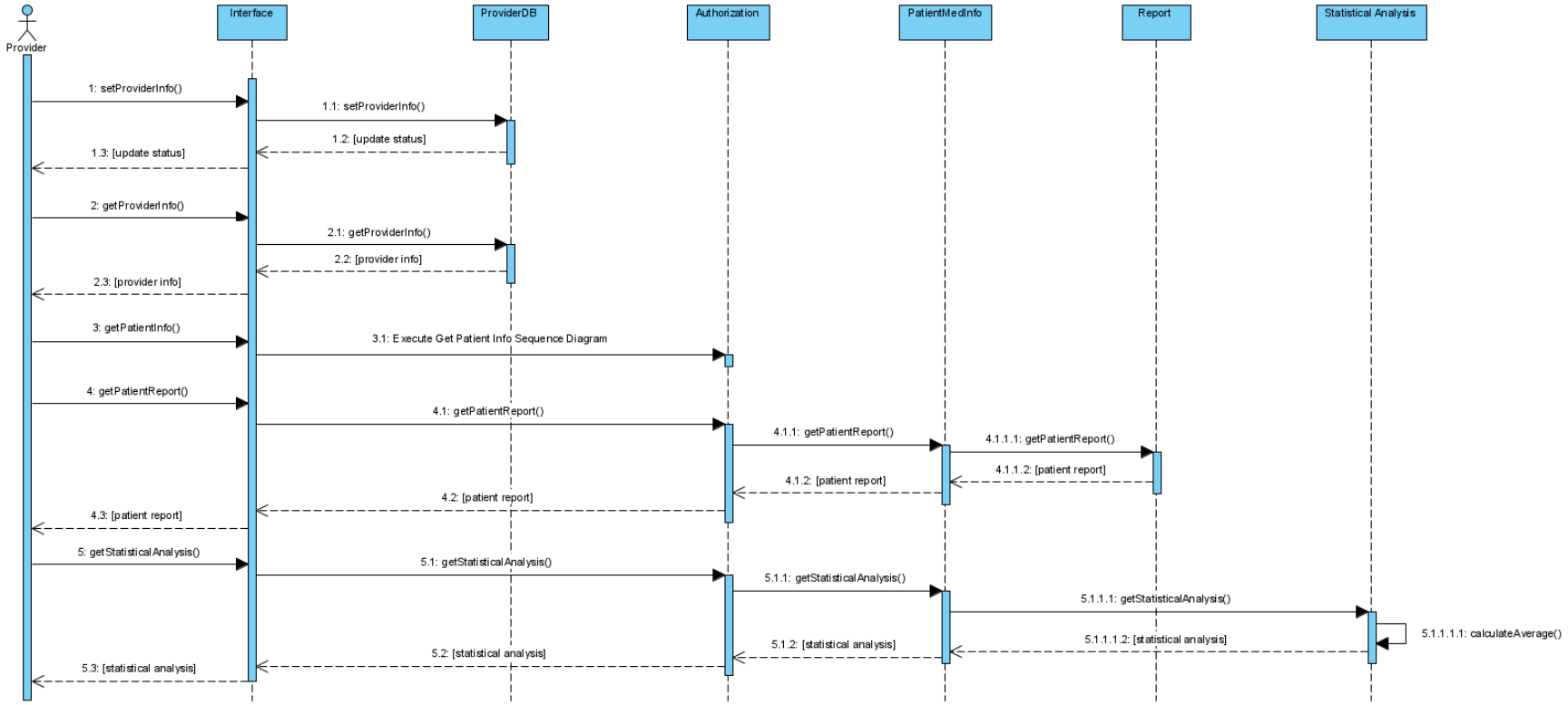
Link to IoT Sequence Diagram



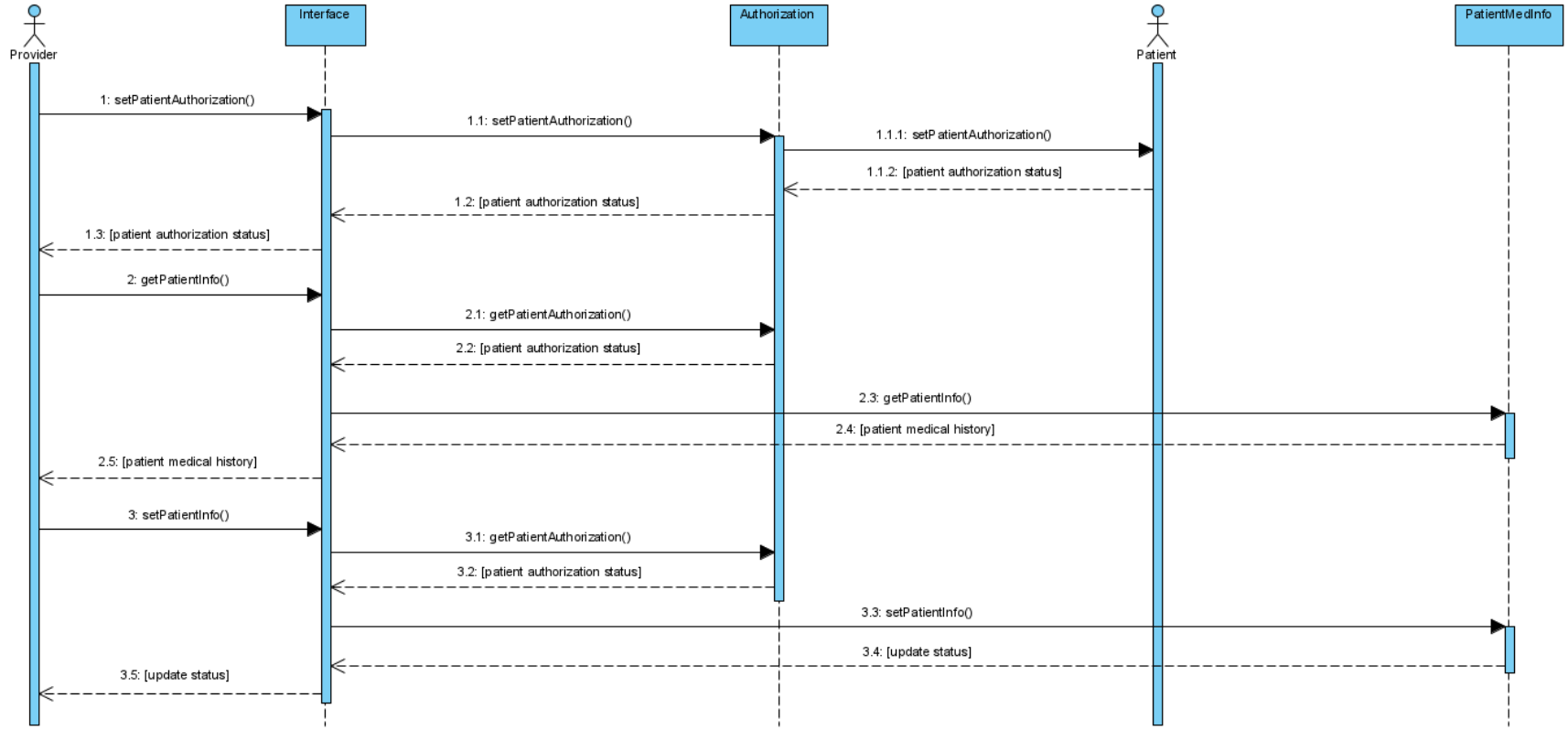
Authorize Access Sequence Diagram



Provider Sequence Diagram



Get Patient Info Sequence Diagram

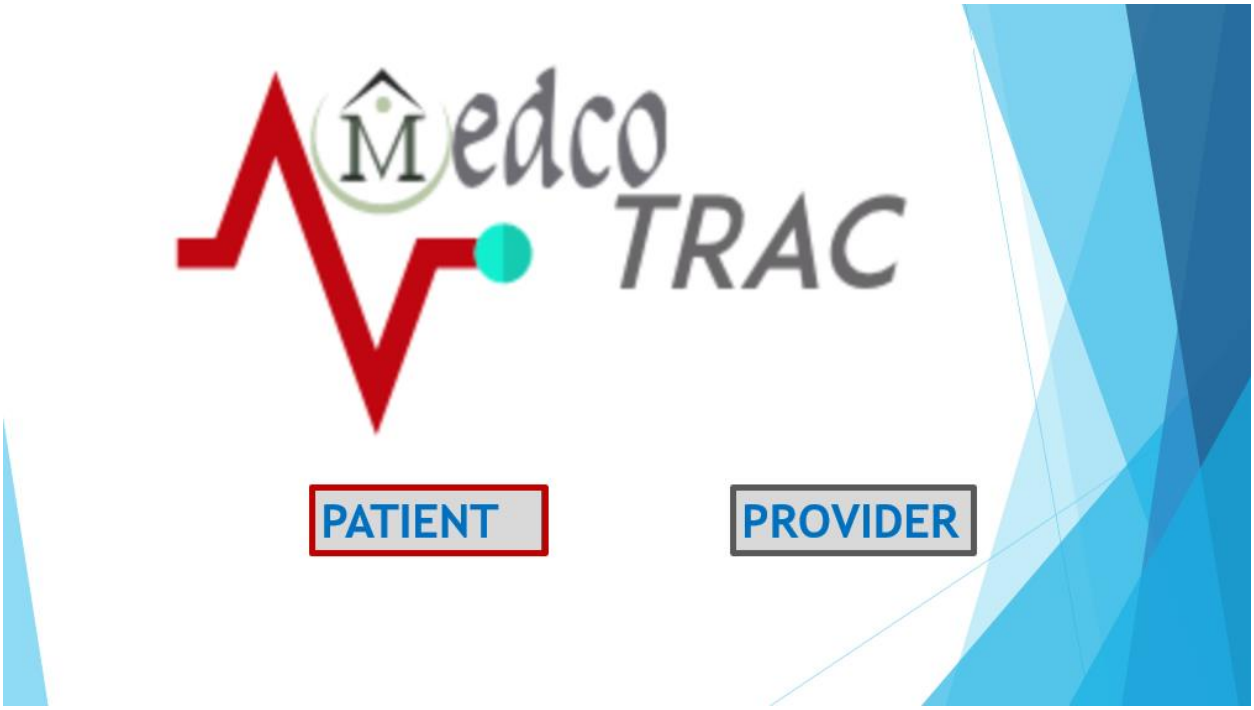


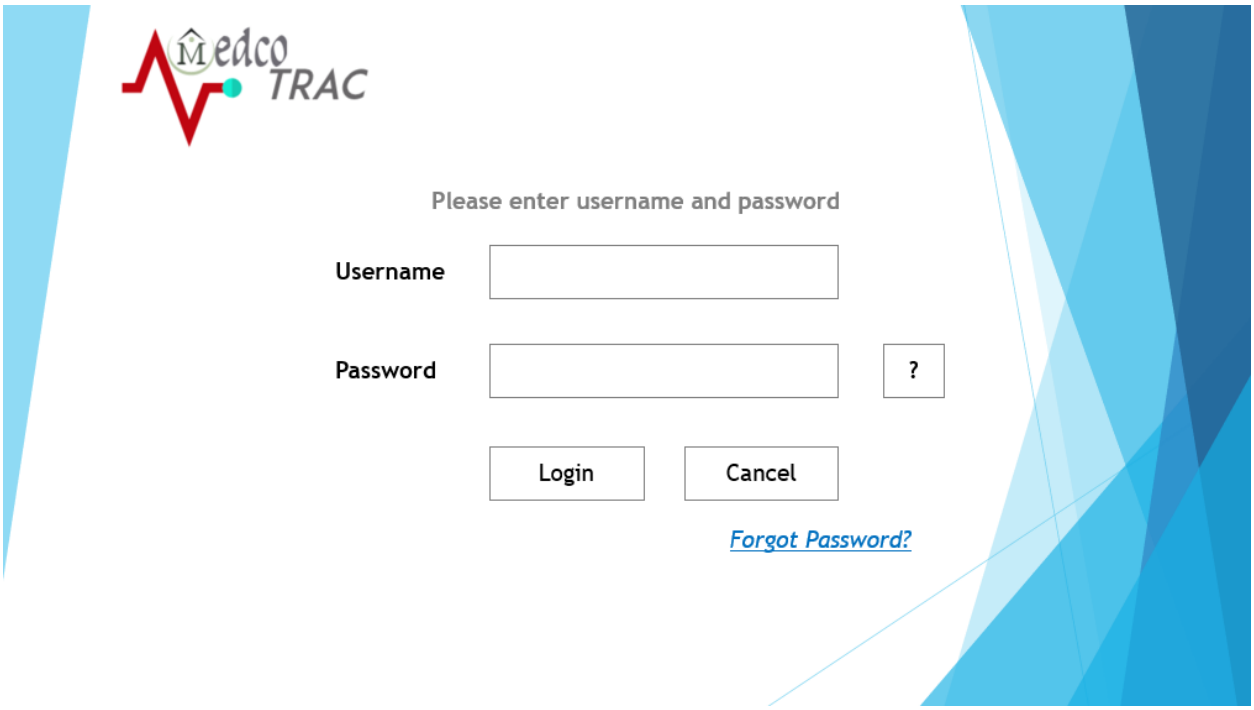
Functional Specification Document

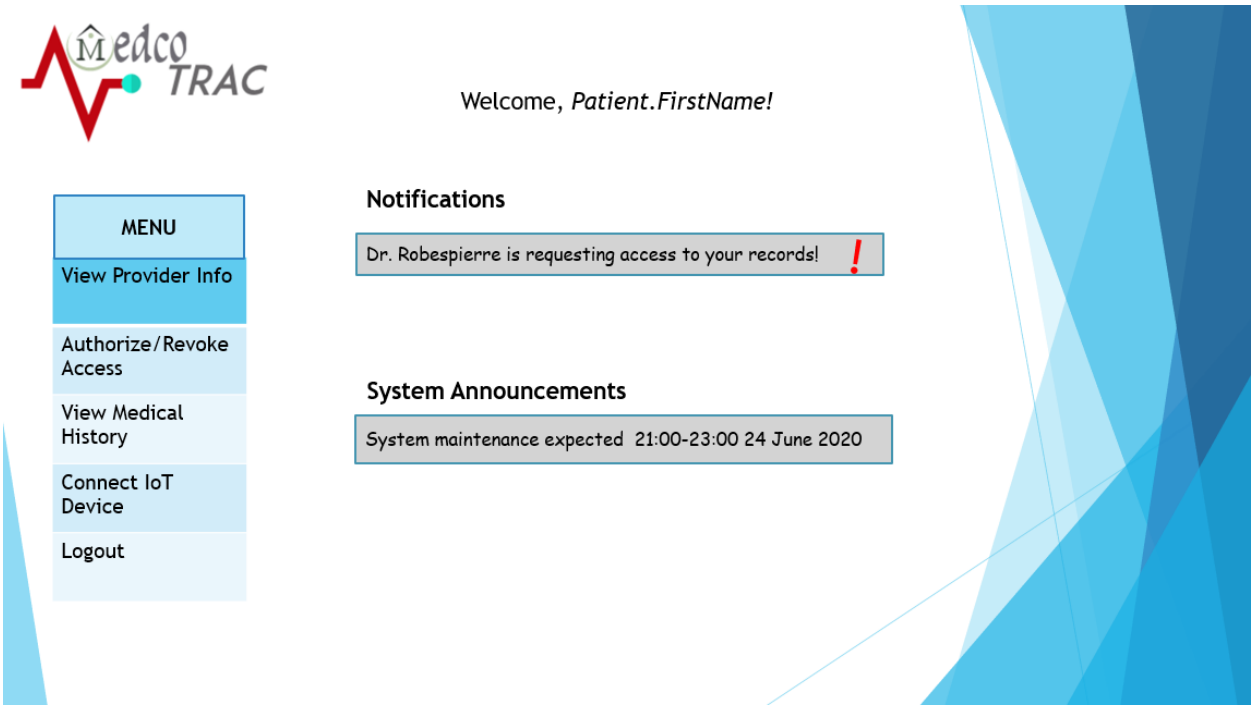
- The proposed new system will allow patients to enter and store their medical history details in a central repository accessible by any medical provider the patient authorizes. Patients will be required to complete the routine profile information and medical history details only as part of the initial setup, as the data will be retained and available for update as needed.
- Authorized providers and the patient can update the medical history details during an appointment or on an ad hoc basis.
- Patients will also be able to connect IoT capable medical tracking devices so the data collected by those devices can be imported into the system and used to automatically update the medical history details. This will provide a mechanism for these vital statistics to become part of the patient's medical history to give a more complete picture of the patient's medical status.
- The system will include functionality to generate reports and statistical analysis of the patient's history using selected criteria. This will give the provider additional tools to use in the overall assessment, diagnosis, and treatment plan.

Interface Design

Patient View

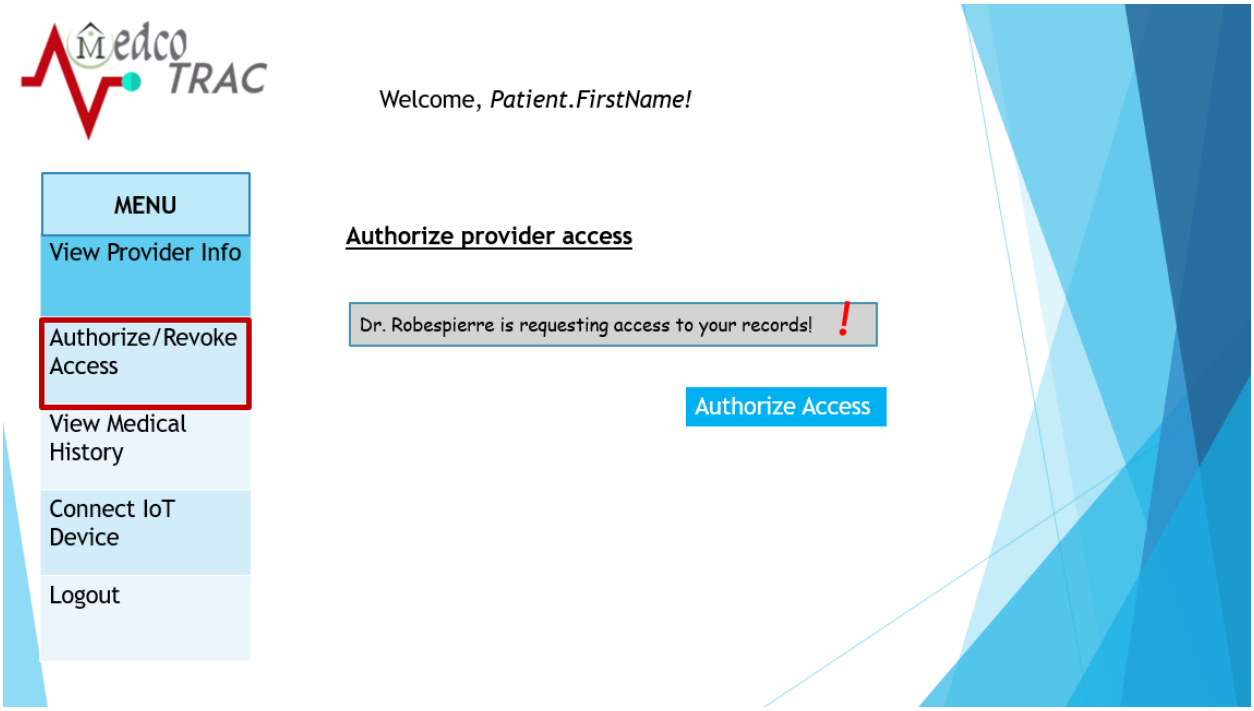





Welcome, Patient.FirstName!
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
Connect IoT Device
Logout
Notifications
Dr. Robespierre is requesting access to your records!
System Announcements
System maintenance expected 21:00-23:00 24 June 2020


Welcome, Patient.FirstName!
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
Connect IoT Device
Logout
Please select a Provider to view the record:
Provider Name
Clinic ID
Specialty
Angela Johnson
KFKF8494859
Podiatry
John Smith
NRIH44098765
Hearing


Medco TRAC
Welcome, *Patient.FirstName!*
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
Connect IoT Device
Logout
Name Angela Johnson
Clinic Address 4615 Main St., Dallas, TX 75225
Specialty Podiatry
Phone 214-555-4967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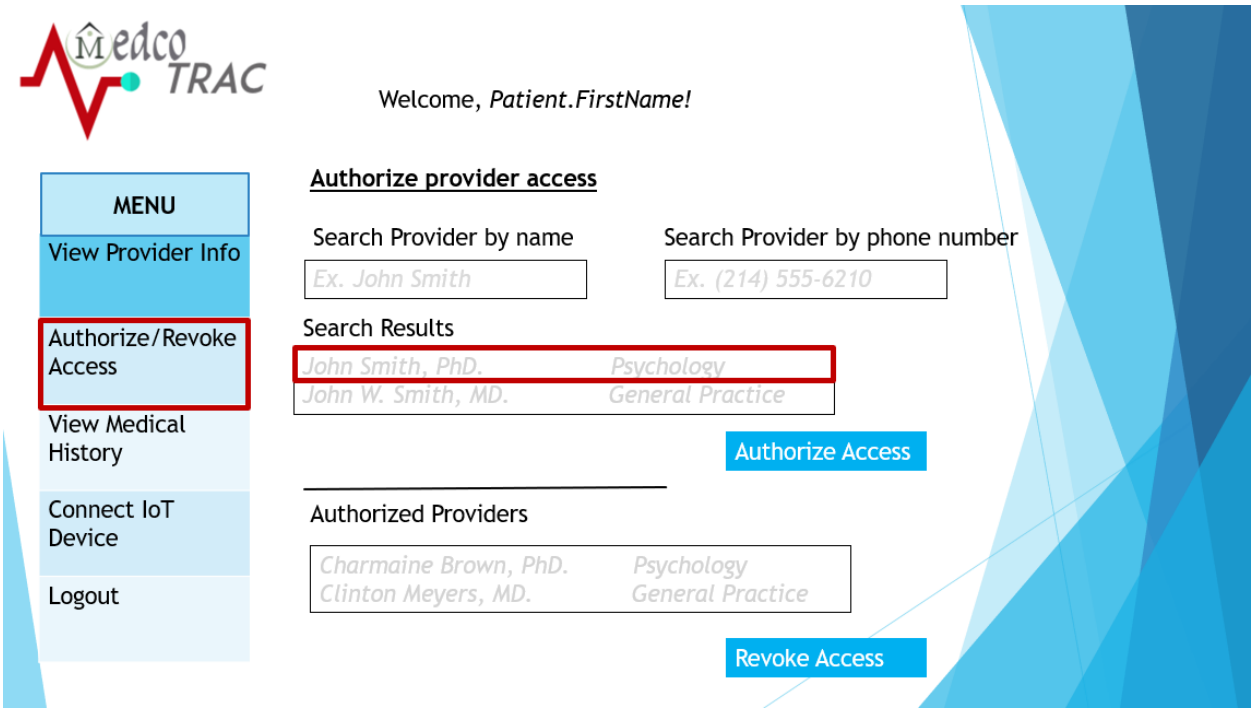
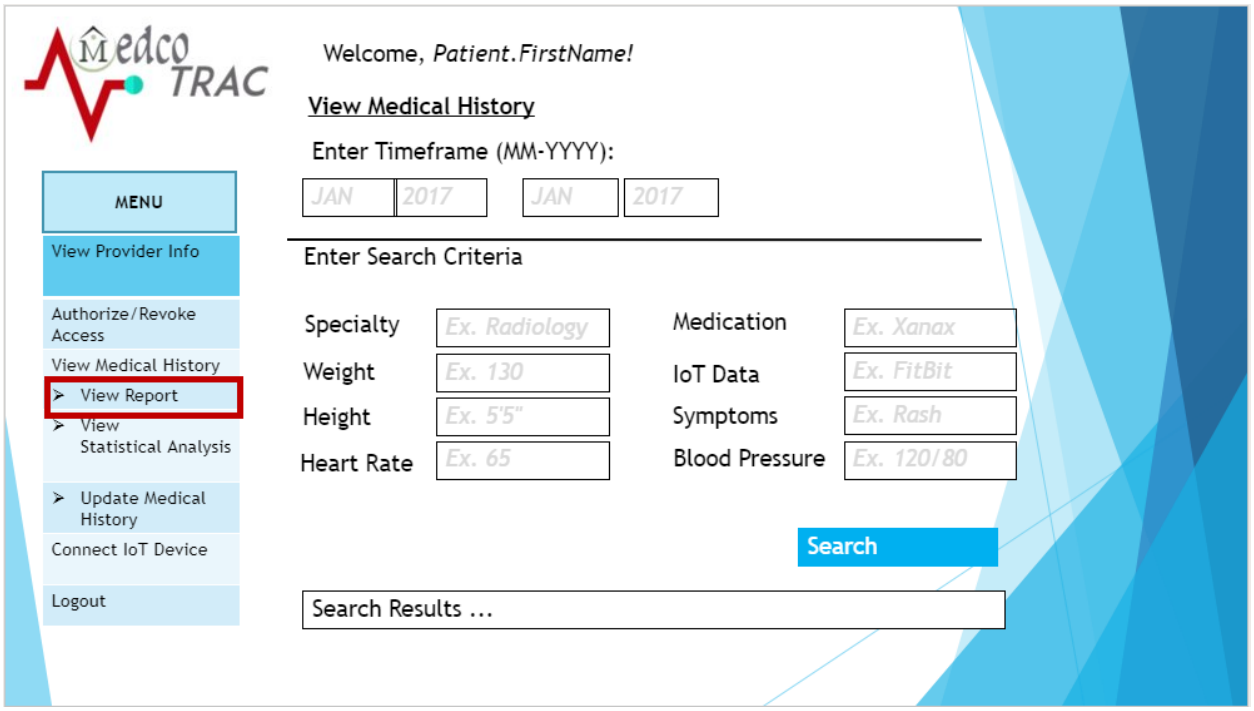
Connect IoT Device
Logout
Authorize provider access
Dr. Robespierre is requesting access to your records!
Authorize Access


Welcome, Patient.FirstName!
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
Connect IoT Device
Logout
Authorize provider access
Search Provider by name
Ex. John Smith
Search Provider by phone number
Ex. (214) 555-6210
Search Results
John Smith, PhD. Psychology
John W. Smith, MD. General Practice
Authorize Access
Authorized Providers
Charmaine Brown, PhD. Psychology
Clinton Meyers, MD. General Practice
Revoke Access


Welcome, Patient.FirstName!
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Connect IoT Device
Logout
View Medical History
Enter Timeframe (MM-YYYY):
JAN 2017
JAN 2017
Enter Search Criteria
Specialty Ex. Radiology
Weight Ex. 130
Height Ex. 5'5"
Heart Rate Ex. 65
Medication Ex. Xanax
IoT Data Ex. FitBit
Symptoms Ex. Rash
Blood Pressure Ex. 120/80
Search
Search Results ...


Medco TRAC
Welcome, Patient.FirstName!
View Statistical Analysis
Enter Timeframe (MM-YYYY):
JAN 2017 JAN 2017
Enter Search Criteria
Heart Rate
Blood Pressure
Sleep
Statistical Analysis
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
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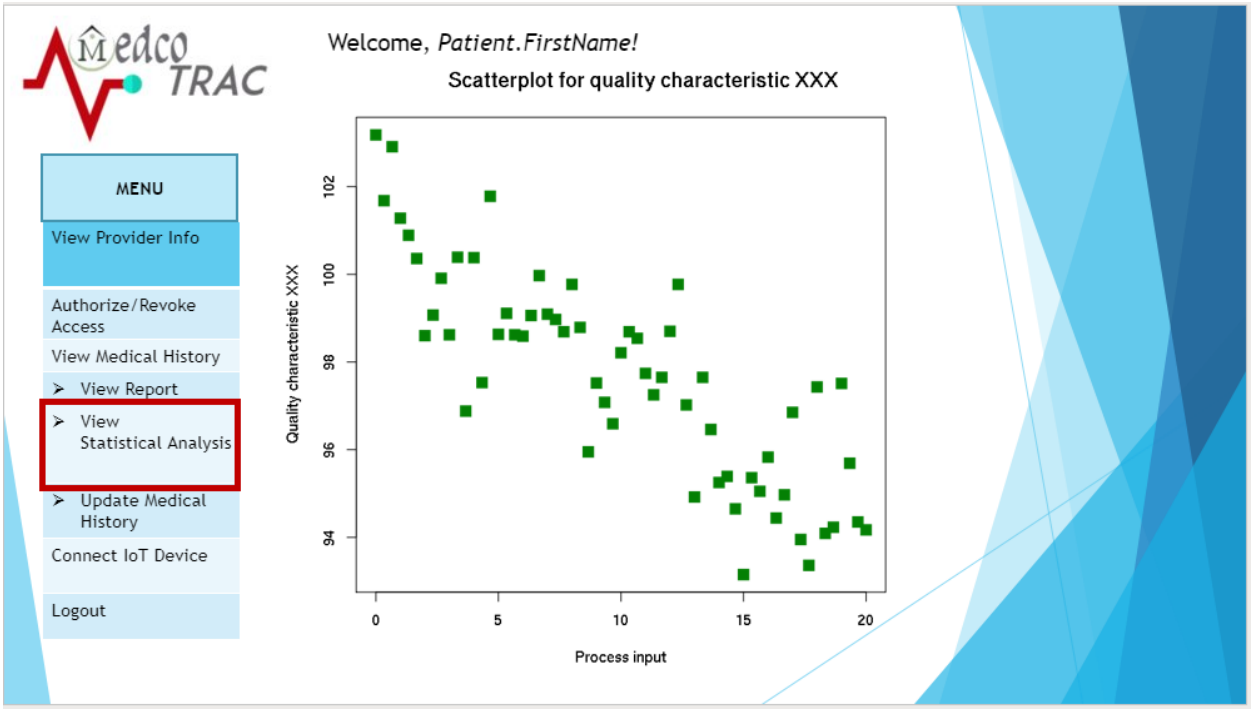
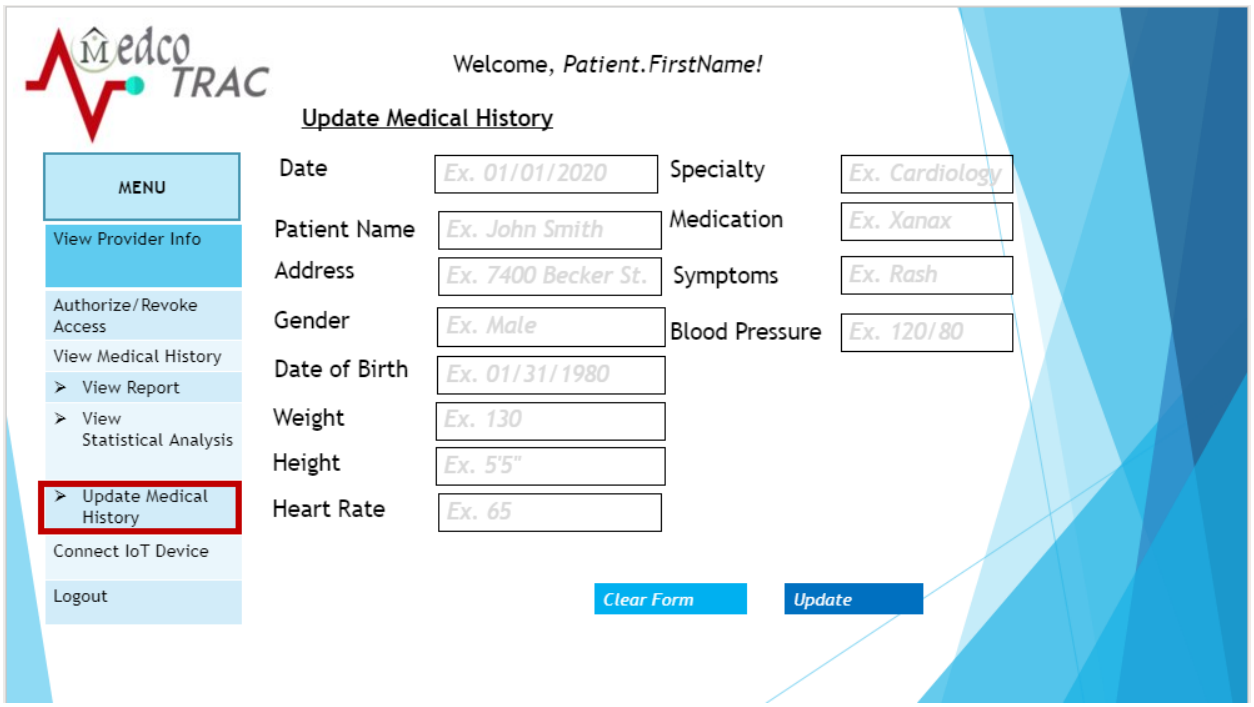
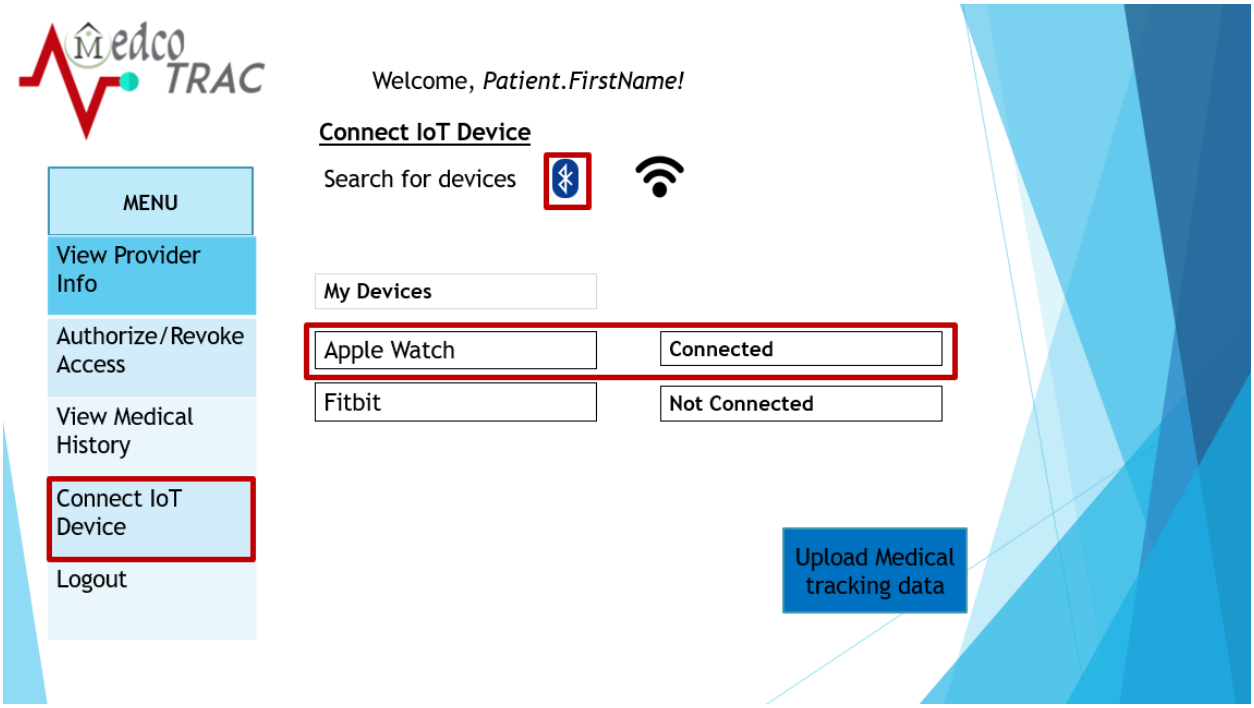
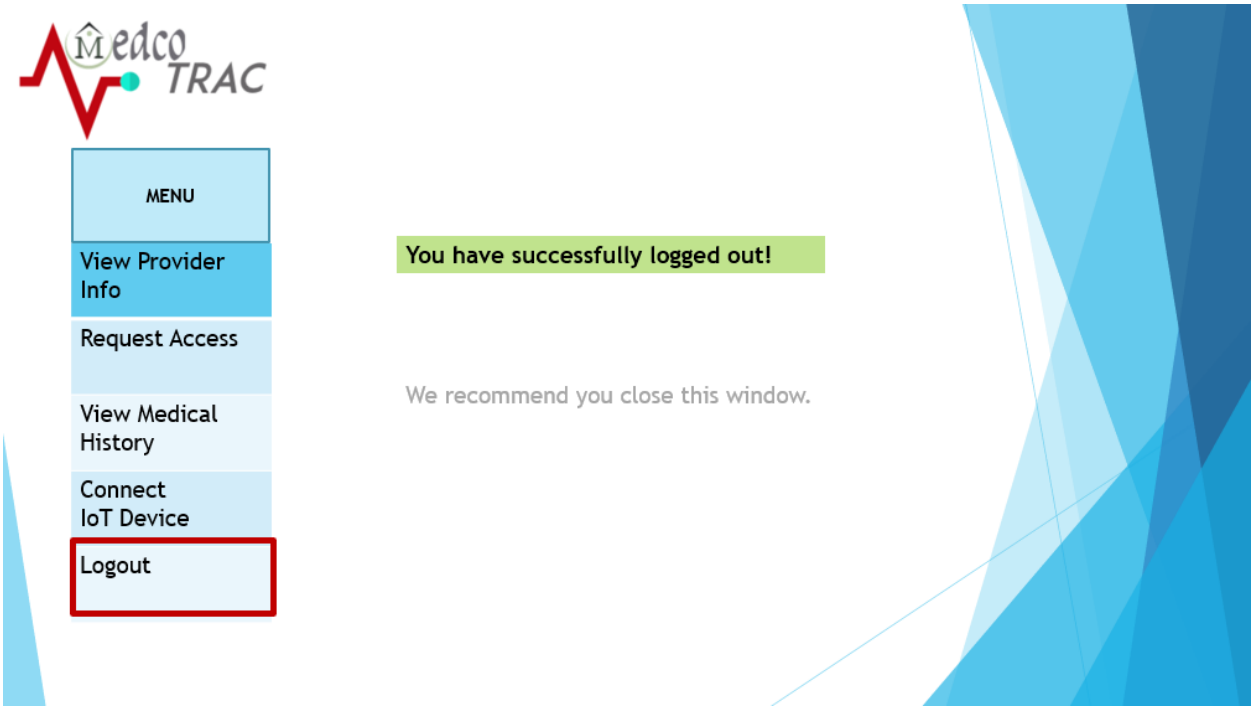
Logout

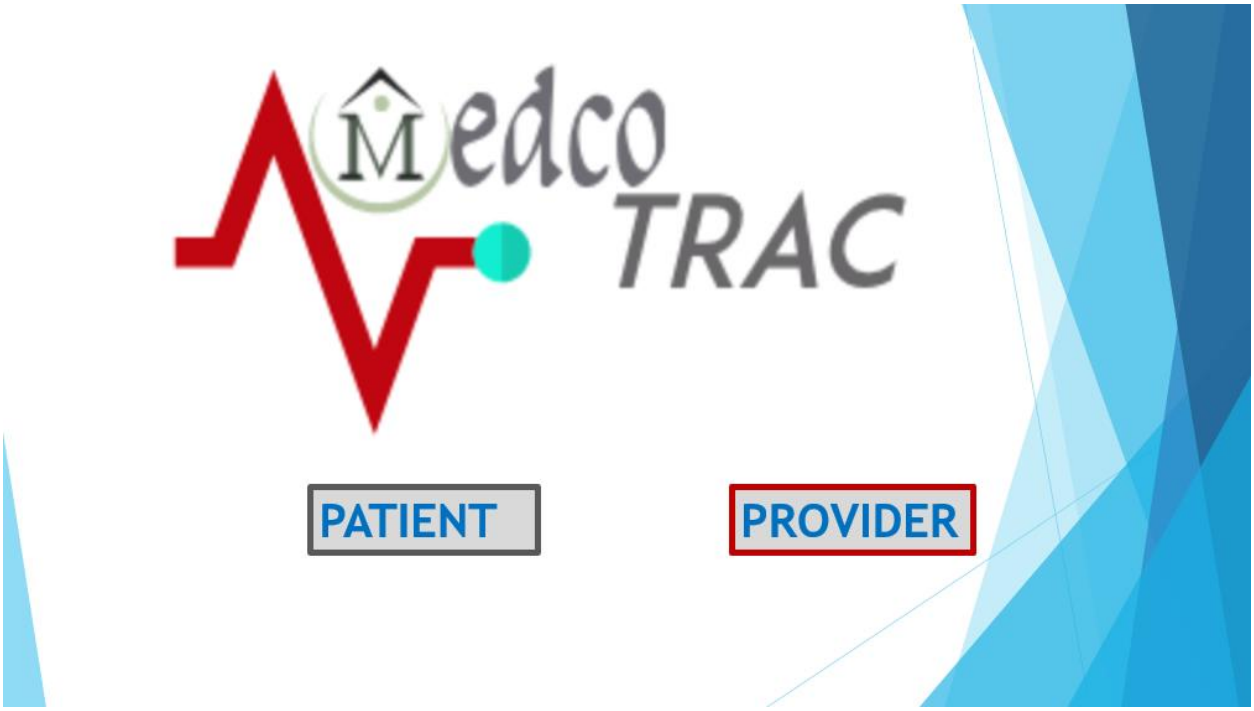

Medco TRAC
Welcome, Patient.FirstName!
Scatterplot for quality characteristic XXX
Quality characteristic XXX
Process input
94
96
98
100
102
0
5
10
15
20
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Connect IoT Device
Logout

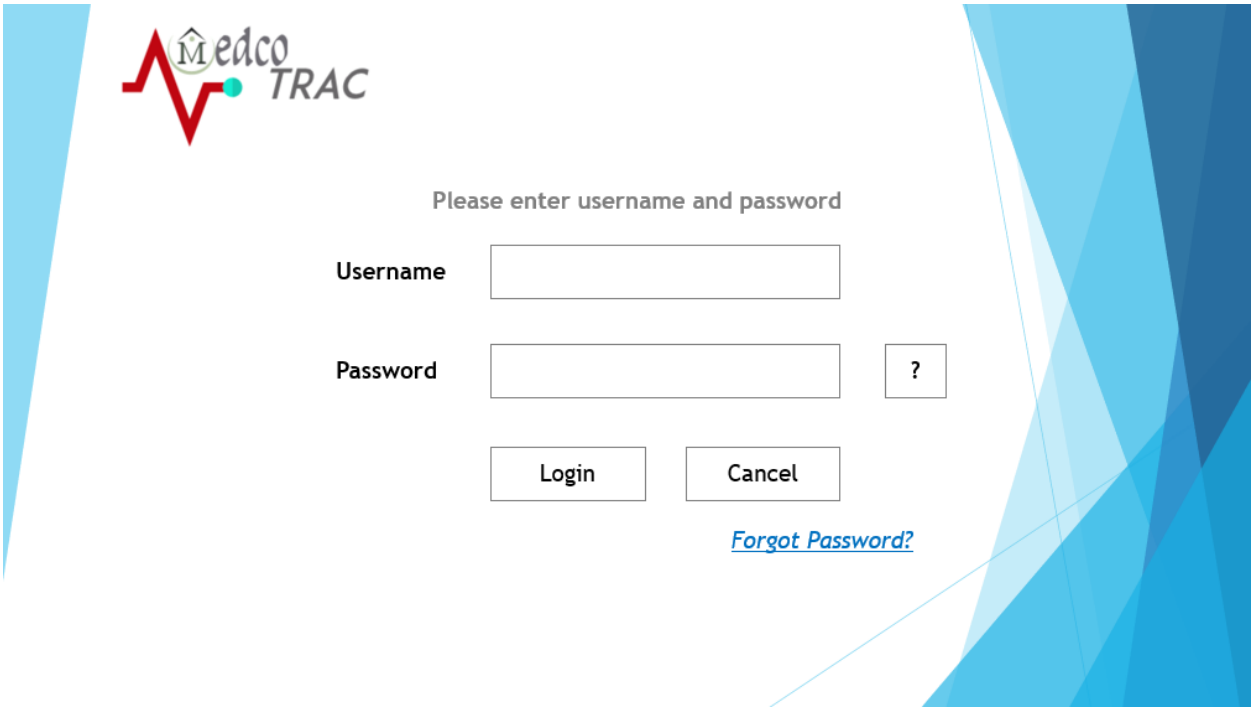

Medco TRAC
Welcome, Patient.FirstName!
Update Medical History
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Connect IoT Device
Logout
Date
Ex. 01/01/2020
Specialty
Ex. Cardiology
Patient Name
Ex. John Smith
Medication
Ex. Xanax
Address
Ex. 7400 Becker St.
Symptoms
Ex. Rash
Gender
Ex. Male
Blood Pressure
Ex. 120/80
Date of Birth
Ex. 01/31/1980
Weight
Ex. 130
Height
Ex. 5'5"
Heart Rate
Ex. 65
Clear Form
Update

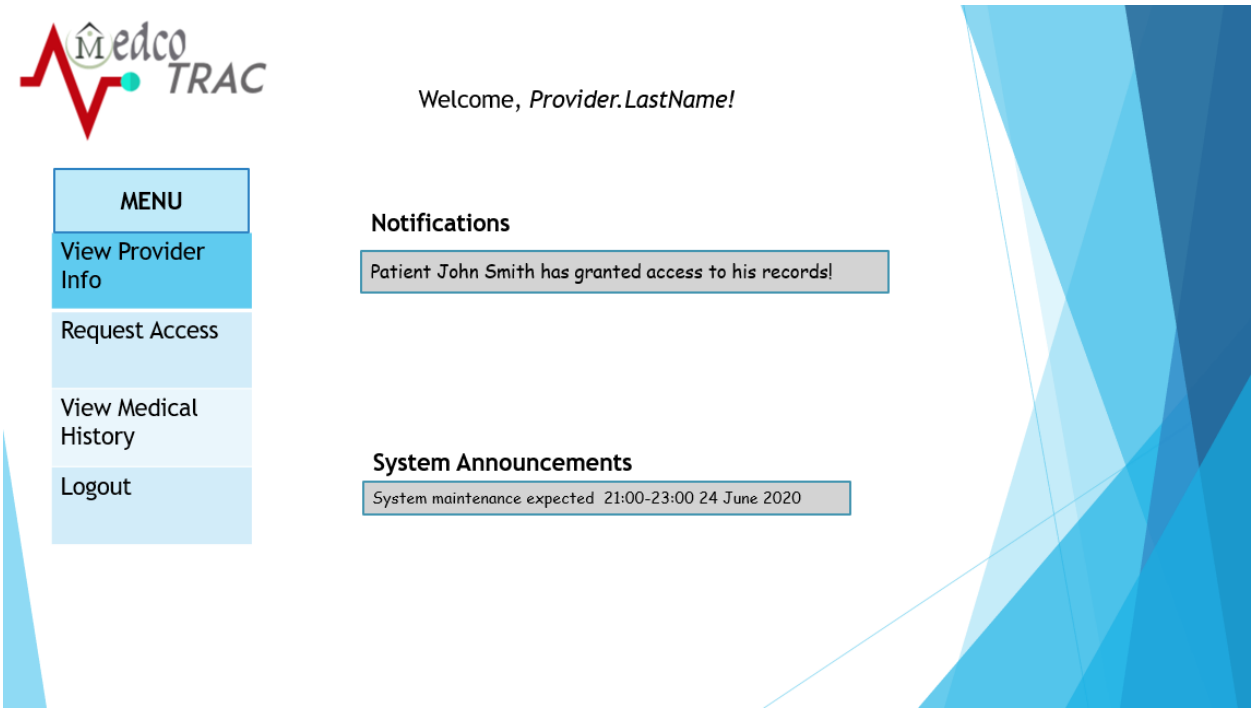

Medco TRAC
Welcome, Patient.FirstName!
Connect IoT Device
Search for devices
MENU
View Provider Info
Authorize/Revoke Access
View Medical History
Connect IoT Device
Logout
My Devices
Apple Watch
Connected
Fitbit
Not Connected
Upload Medical tracking data

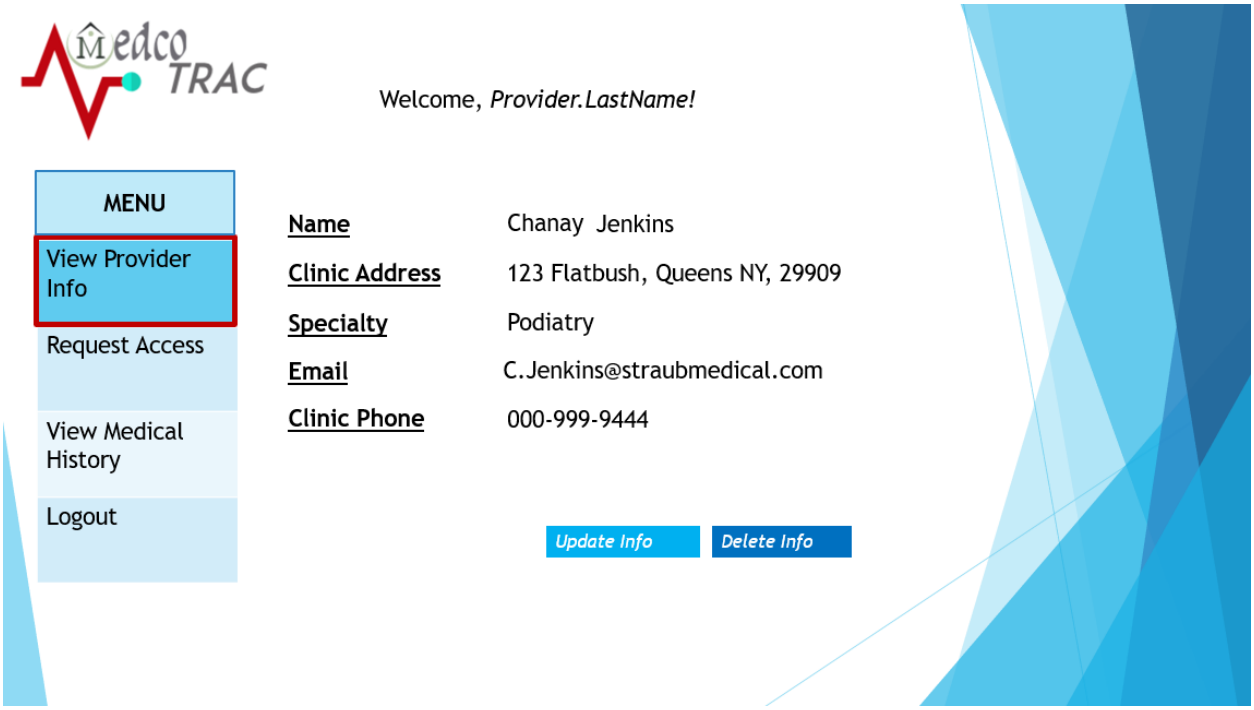

MENU
View Provider Info
Request Access
View Medical History
Connect IoT Device
Logout
You have successfully logged out!
We recommend you close this window.

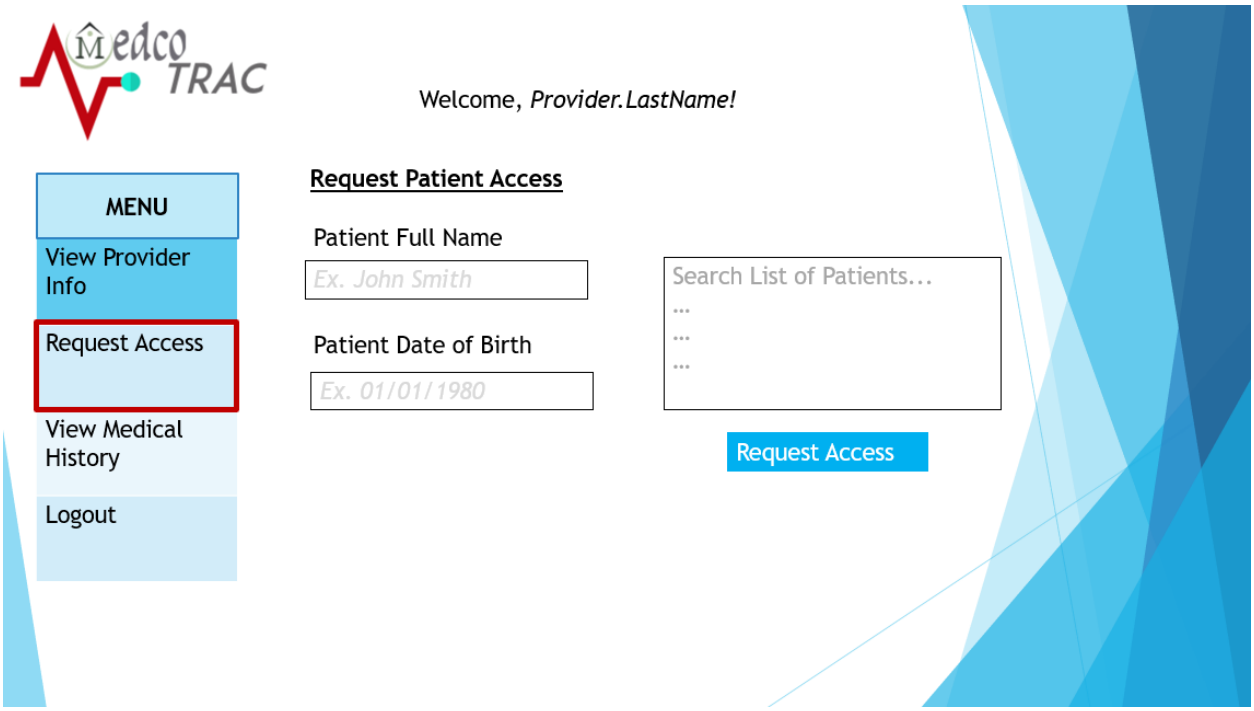
Provider View

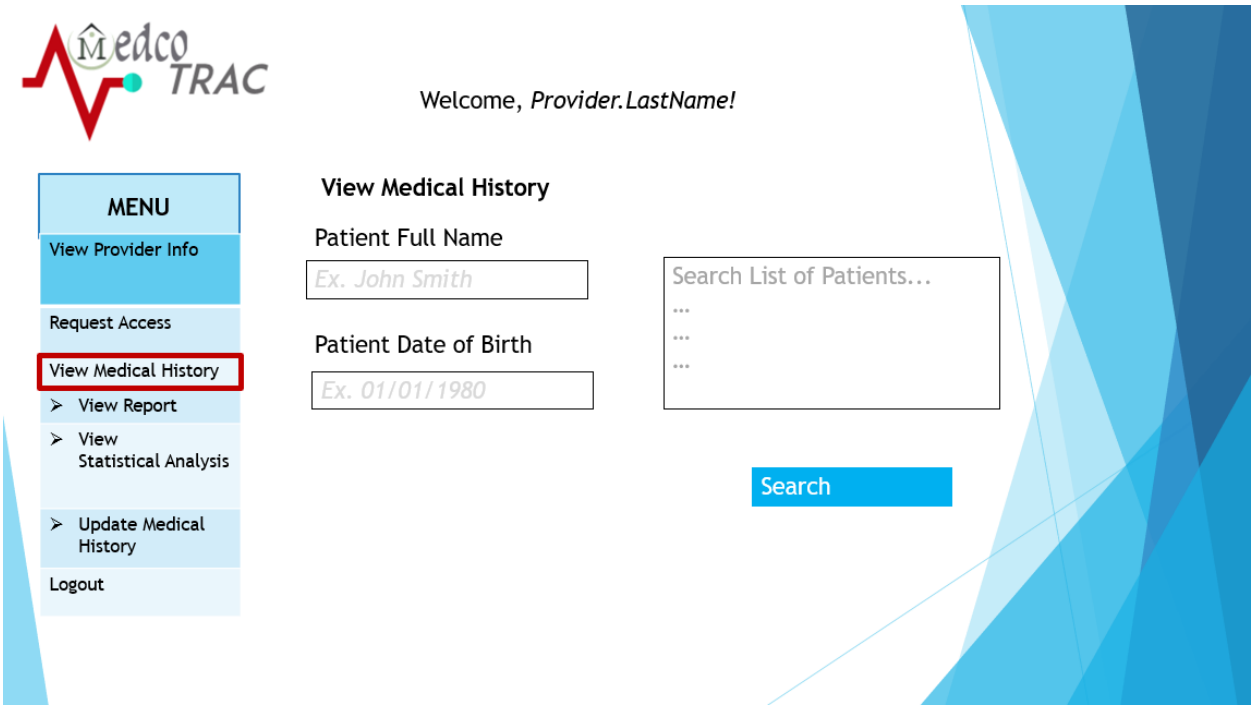


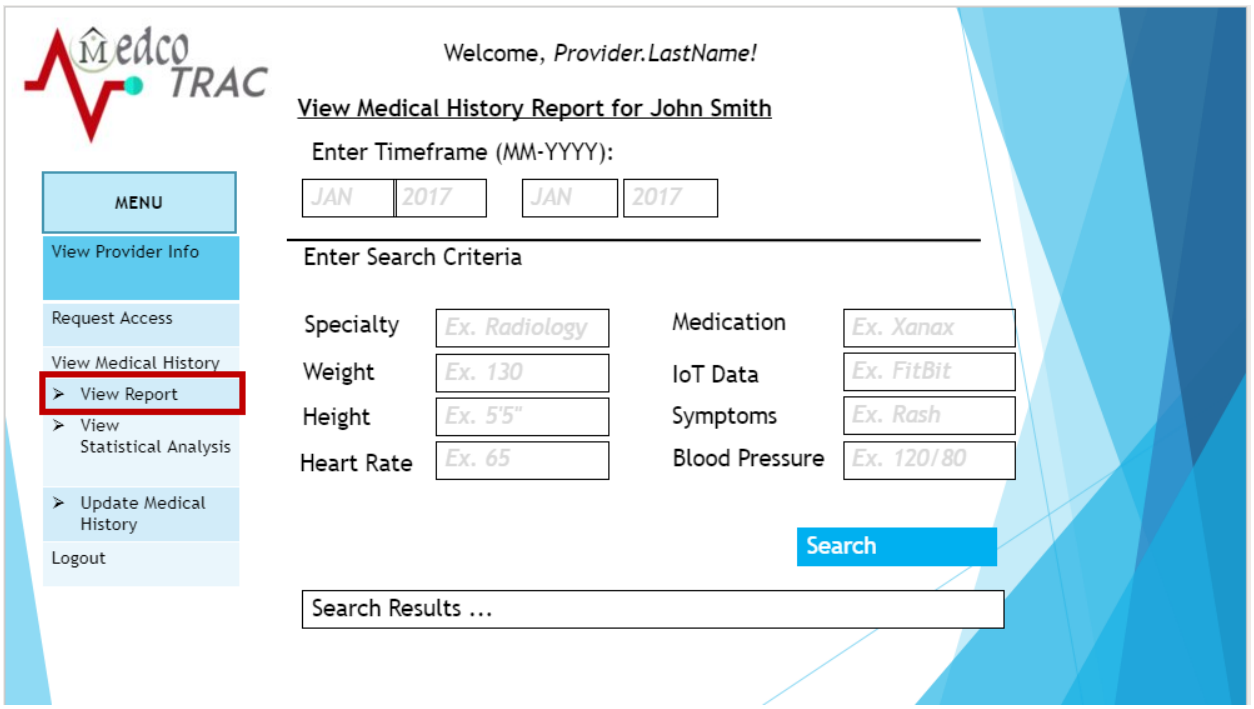


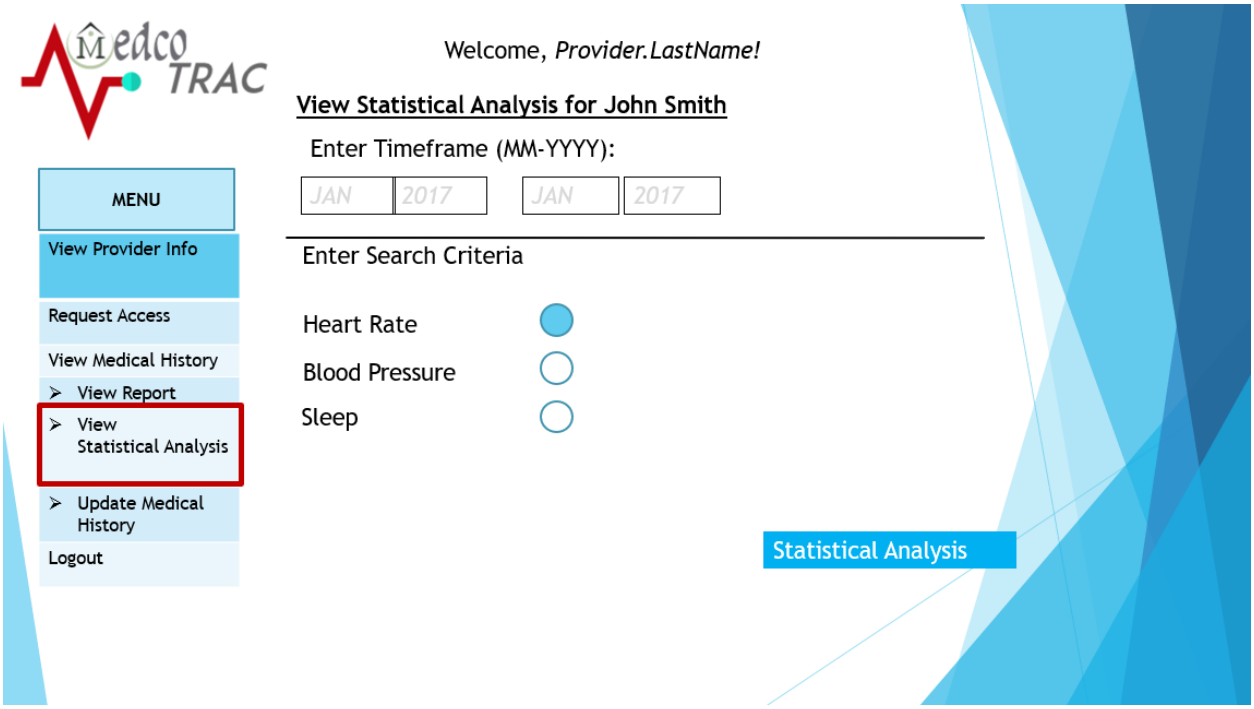

Welcome, *Provider.LastName!*
MENU
View Provider Info
Request Access
View Medical History
Logout
Notifications
Patient John Smith has granted access to his records!
System Announcements
System maintenance expected 21:00-23:00 24 June 2020

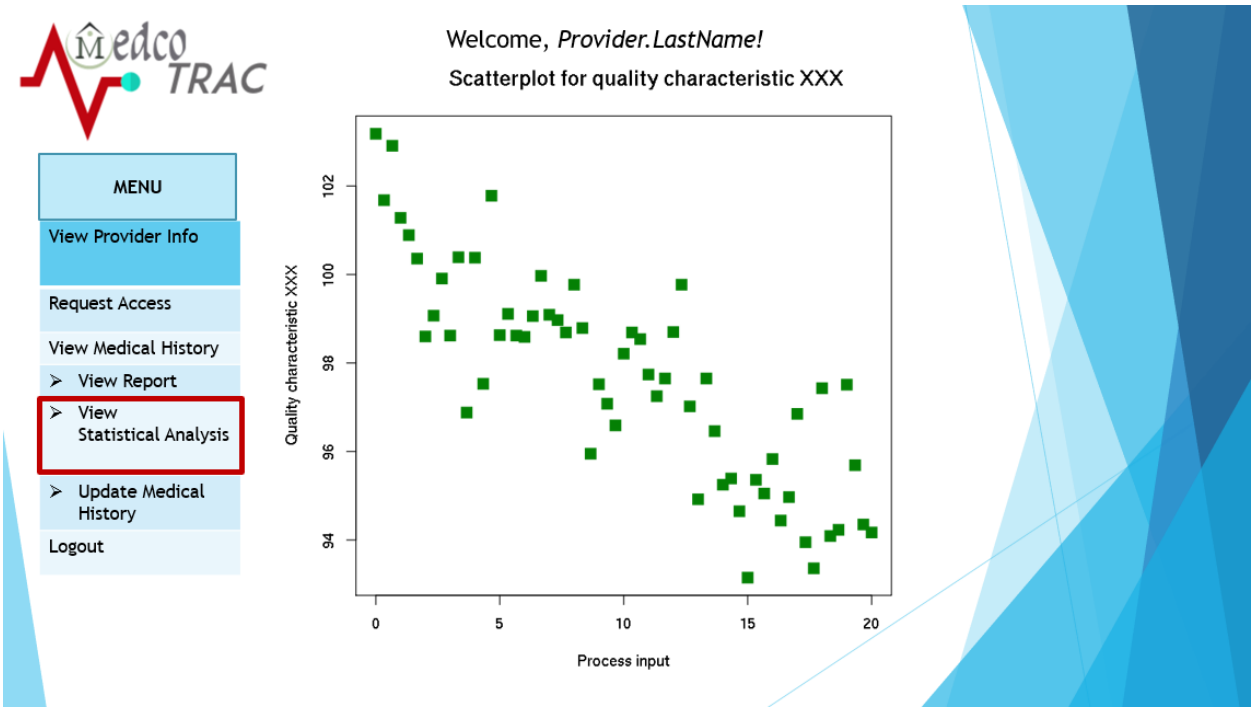

Welcome, *Provider.LastName!*
MENU
View Provider Info
Request Access
View Medical History
Logout
Name Chanay Jenkins
Clinic Address 123 Flatbush, Queens NY, 29909
Specialty Podiatry
Email C.Jenkins@straubmedical.com
Clinic Phone 000-999-9444
Update Info
Delete Info

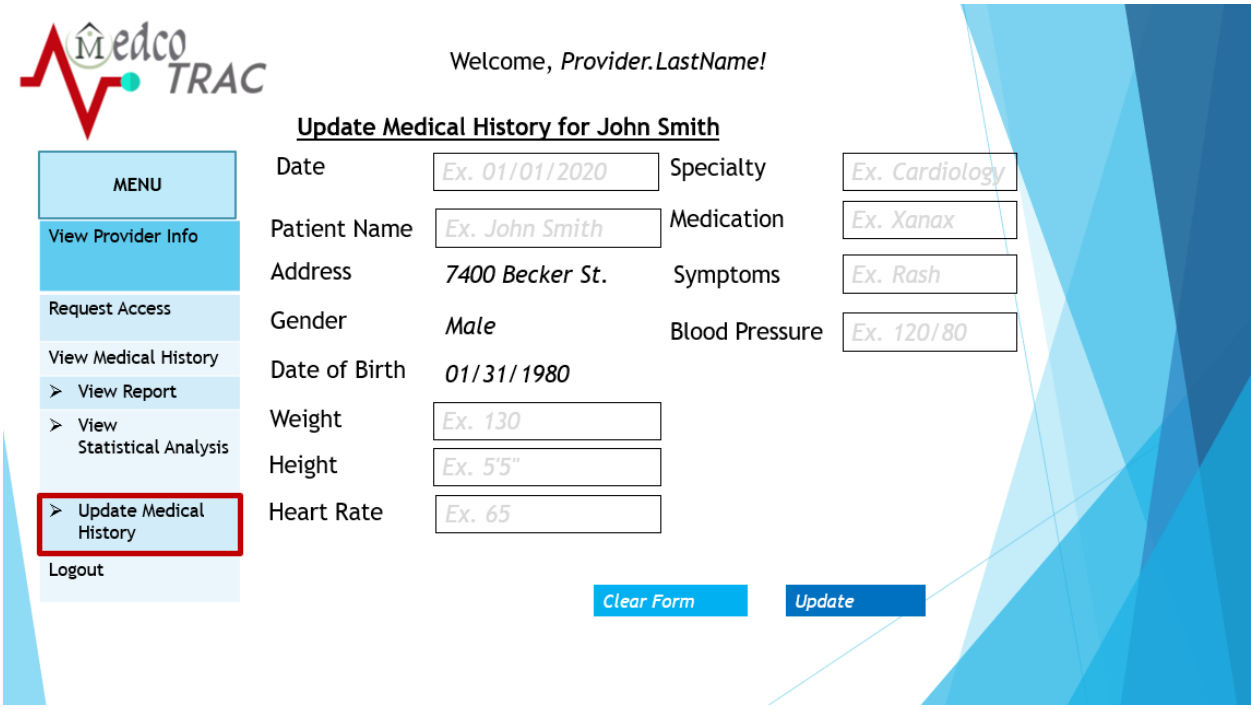

Welcome, Provider.LastName!
MENU
View Provider Info
Request Access
View Medical History
Logout
Request Patient Access
Patient Full Name
Ex. John Smith
Patient Date of Birth
Ex. 01/01/1980
Search List of Patients...
Request Access

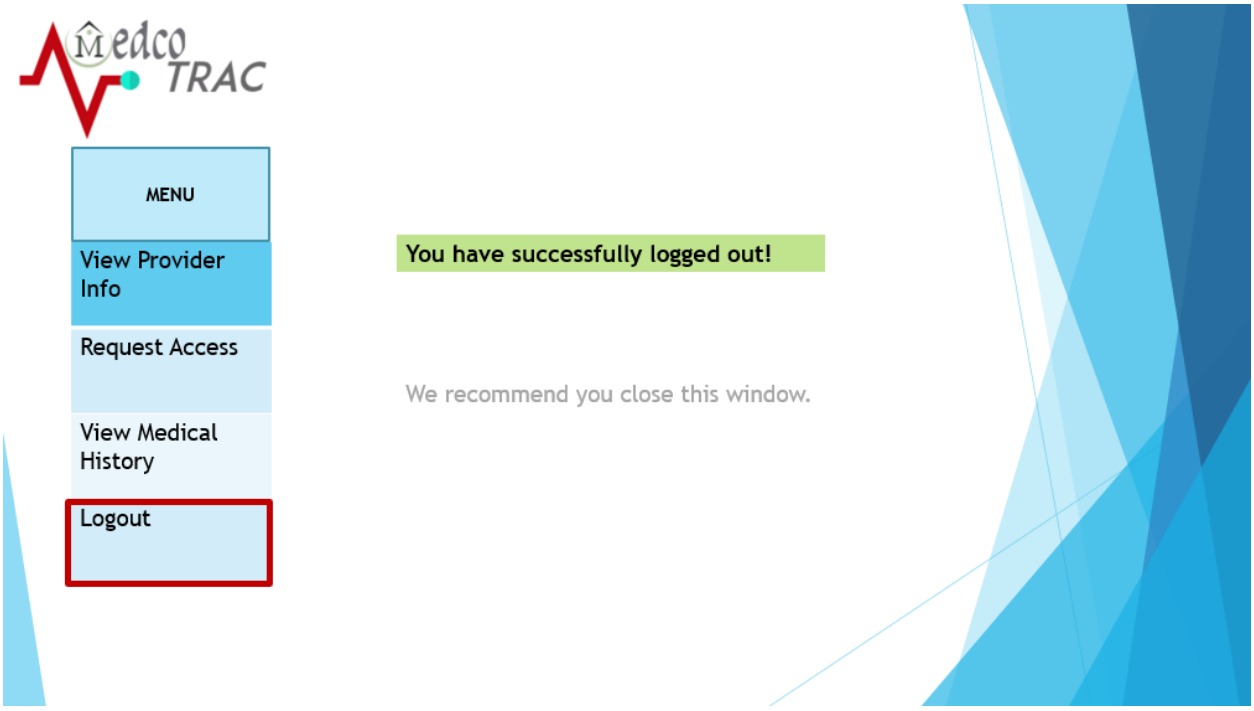

Welcome, Provider.LastName!
MENU
View Provider Info
Request Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Logout
View Medical History
Patient Full Name
Ex. John Smith
Patient Date of Birth
Ex. 01/01/1980
Search List of Patients...
Search


Medco TRAC
Welcome, Provider.LastName!
View Medical History Report for John Smith
Enter Timeframe (MM-YYYY):
JAN 2017 JAN 2017
MENU
View Provider Info
Request Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Logout
Enter Search Criteria
Specialty Ex. Radiology
Medication Ex. Xanax
Weight Ex. 130
IoT Data Ex. FitBit
Height Ex. 5'5"
Symptoms Ex. Rash
Heart Rate Ex. 65
Blood Pressure Ex. 120/80
Search
Search Results ...

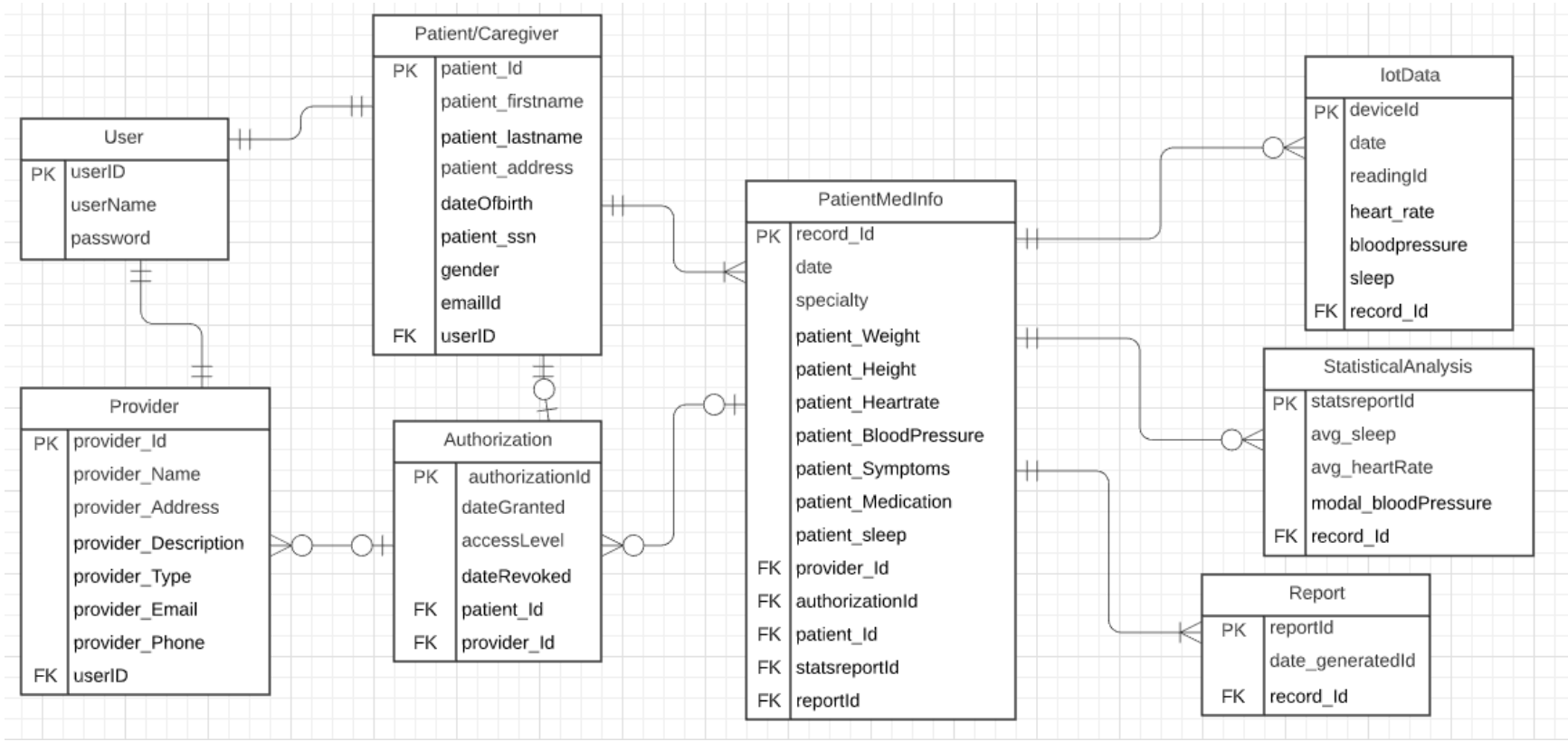

Medco TRAC
Welcome, Provider.LastName!
View Statistical Analysis for John Smith
Enter Timeframe (MM-YYYY):
JAN 2017 JAN 2017
MENU
View Provider Info
Request Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Logout
Enter Search Criteria
Heart Rate
Blood Pressure
Sleep
Statistical Analysis


Medco TRAC
MENU
View Provider Info
Request Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Logout
Welcome, Provider.LastName!
Scatterplot for quality characteristic XXX
Quality characteristic XXX
94
96
98
100
102
0
5
10
15
20
Process input


Medco TRAC
MENU
View Provider Info
Request Access
View Medical History
View Report
View Statistical Analysis
Update Medical History
Logout
Welcome, Provider.LastName!
Update Medical History for John Smith
Date
Ex. 01/01/2020
Specialty
Ex. Cardiology
Patient Name
Ex. John Smith
Medication
Ex. Xanax
Address
7400 Becker St.
Symptoms
Ex. Rash
Gender
Male
Blood Pressure
Ex. 120/80
Date of Birth
01/31/1980
Weight
Ex. 130
Height
Ex. 5'5"
Heart Rate
Ex. 65
Clear Form
Update


MENU
View Provider Info
Request Access
View Medical History
Logout
You have successfully logged out!
We recommend you close this window.

Database Design



Database Constraints

User Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘userID’ and attribute ‘userName’, ‘password’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘userID’ should be unique.

Patient/Caregiver Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘patient_Id’ and attributes ‘patient_firstname’ , ‘patient_lastname’ , ‘emailid’, ‘patient_ssn’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘patient_Id’ and attributes ‘emailId ‘, ’patient_ssn’ should be unique.
- Referential Integrity Constraint of ‘UseruserID’ which is a foreign key in Patient/Caregiver table should exist as a primary key in User table.

Authorization Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘authorizationId’ and attribute ‘accessLevel’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘authorizationId’ should be unique.
- Referential Integrity Constraint of ‘Patient/Caregiverpatient_Id’ and ‘Providerprovider_Id’ which are foreign keys in Authorization table should exist as a primary key in Patient/Caregiver and Provider tables respectively.

Provider Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘provider_Id’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘provider_Id’ and attributes ‘provider_Name’, ‘Provider_Email’ should be unique.
- Referential Integrity Constraint of ‘UseruserID’ which is a foreign key in Provider table should exist as a primary key in the User table.

PatientMedInfo Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘record_Id’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘record_Id’ should be unique.
- Referential Integrity Constraint of ‘Patient/Caregiverpatient_Id’, ‘Providerprovider_Id’, ‘AuthorizationauthorizationId’, ’ReportreportId’, ’StatisticalAnalysisstatsreportId’ which is

foreign key PatientMedInfo table should exist as a primary key in Patient/Caregiver, Provider, Authorization, Report, and StatisticalAnalysis tables respectively.

IotData Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘deviceId’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘deviceId’ and attribute ‘readingId’ should be unique.
- Referential Integrity Constraint of ‘PatientMedInforecord_Id’ which is foreign key in IotData table should exist as a primary key in PatientMedInfo table.

StatisticalAnalysis Table

Constraints:

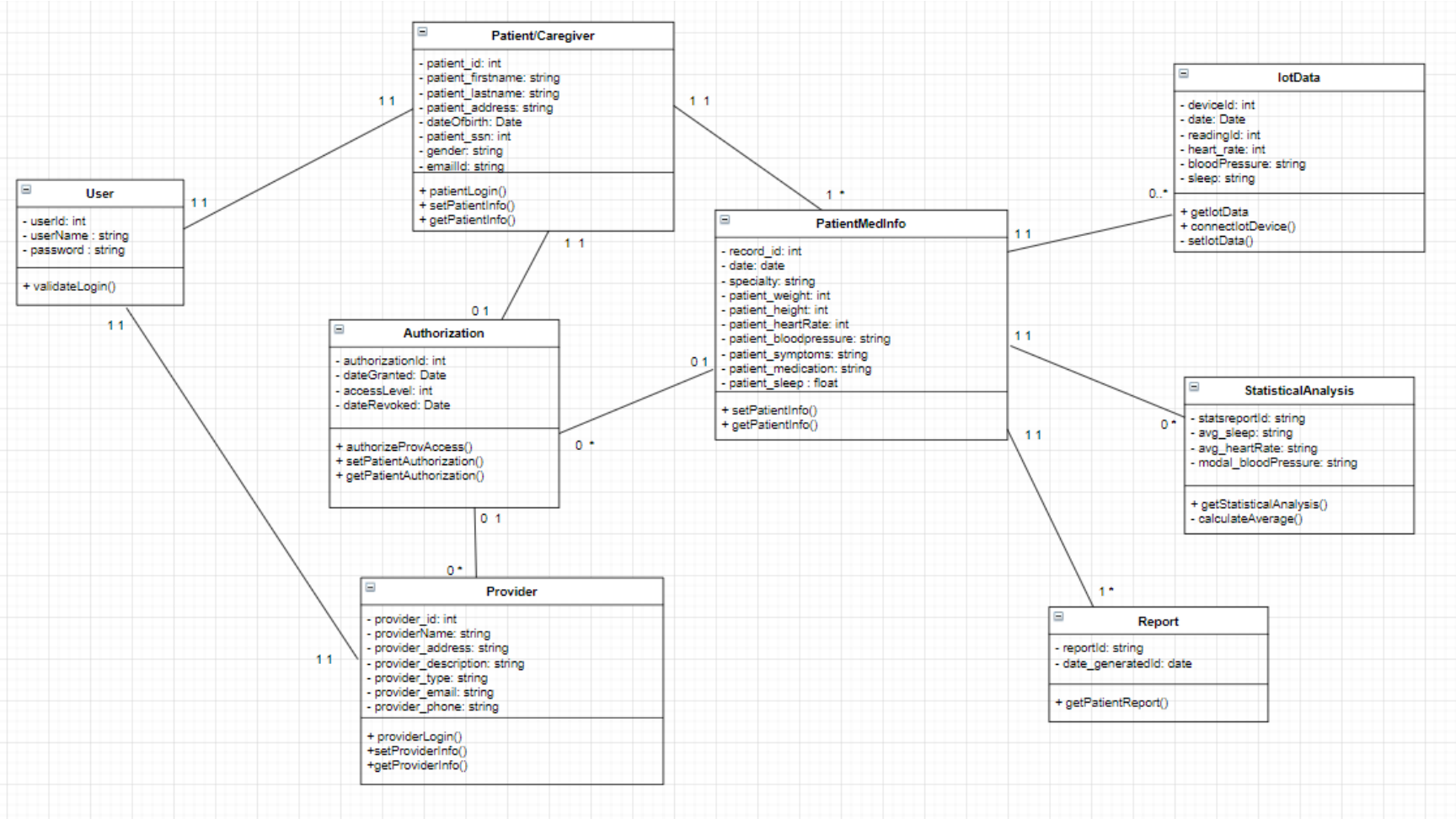
- Primary Key Constraints/Integrity Constraint o Primary Key ‘statsreportId’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘statsreportId’ should be unique.
- Referential Integrity Constraint of ‘PatientMedInforecord_Id’ which is a foreign key in StatisticalAnalysis table should exist as a primary key in PatientMedInfo table.

Report Table

Constraints:

- Primary Key Constraints/Integrity Constraint o Primary Key ‘reportId’ and attribute ‘date_generatedId’ should not be NULL.
- Uniqueness Constraint o Primary Key ‘reportId’ should be unique.
- Referential Integrity Constraint of ‘PatientMedInforecord_Id’ which is a foreign key in Report table should exist as a primary key in PatientMedInfo table.

Class Diagram (With Methods)



Software Design

Method 1: getStatisticalAnalysis()

Method Name: getStatisticalAnalysis()	**Class Name:** StatisticalAnalysis	**ID:** statsreportid
Clients (Consumers): Provider, Patient		
Associated Use Cases: View Statistical Analysis		
Description of Responsibilities: Provides trending and statistical analysis of patient's medical history data		
Arguments Received: patient_id, timeframe, criteria		
Type of Value Returned: plot		
Pre-Conditions: more than one record exists for sleep in IotData Table or more than one record exists for heartRate in IotData Table or more than one record exists for bloodPressure in IotData Table		
Post-Conditions: A chart generated from the data is displayed		

Logic:

EXECUTE calculateAverage() method

FETCH avg_sleep or avg_heartRate or modal_bloodPressure FROM StatisticalAnalysis Table

DISPLAY chart showing average statistic for timeframe and criteria received

Method 2: calculateAverage()

Method Name: calculateAverage()	**Class Name:** StatisticalAnalysis	**ID:** statsreportid
Clients (Consumers): Provider, Patient		
Associated Use Cases: View Statistical Analysis		

Description of Responsibilities: Calculates average sleep, modal blood pressure, and average heart rate from records in IotData Table
Arguments Received: sleep, bloodPressure, heart_rate
Type of Value Returned: string
Pre-Conditions: IotData table must contain at least one record for sleep or bloodPressure or heart_rate
Post-Conditions: The statistical data is stored in the StatisticalAnalysis table.

Logic:

FETCH heart_rate FROM each readingID IN IotData Table

CONVERT heart_rate FROM type string to integer

CALCULATE average of each heart_rate record by dividing the SUM of all record values by the COUNT of values

CONCATENATE avg_heartRate with BPM

SET avg_heartRate IN StatisticalAnalysis Table with the calculated value

FETCH sleep FROM each readingID IN IotData Table

CONVERT sleep FROM type string to float

CALCULATE average of each sleep record by dividing the SUM of all record values by the COUNT of values

SET avg_sleep IN StatisticalAnalysis Table with the calculated value

FETCH bloodPressure FROM each readingID IN IotData Table

CALCULATE mode of all bloodPressure record values

SET modal_bloodPressure in StatisticalAnalysis Table

Method 3: setPatientInfo()

Method Name: setPatientInfo()	**Class Name:** PatientMedInfo and Patient/Caregiver	**ID:** record_id and patient_id
Clients (Consumers): Provider, Patient		
Associated Use Cases: Update Medical History, Connect IoT Device / Upload Medical Tracking Data		
Description of Responsibilities: Updates patient's medical history data		
Arguments Received: patient_id, date, specialty, patient_weight, patient_height, patient_heartRate, patient_bloodpressure, patient_symptoms, patient_medication, patient_sleep OR patient_id, patient_firstname, patient_lastname, patient_address, dateOfbirth, patient_ssn, gender, emailId OR patient_id, patient_heartRate, patient_bloodPressure, patient_sleep		
Type of Value Returned:		
Pre-Conditions: Patient or Provider must be authenticated		
Post-Conditions: The patient's medical history data is updated		

Logic:

Provider Actor executes Update Medical History Use Case:

SET record_id IN PatientMedInfo Table

SET date, specialty, patient_weight, patient_height, patient_heartRate, patient_bloodpressure, patient_symptoms, patient_medication, patient_sleep IN PatientMedInfo Table

Patient Actor executes Update Medical History Use Case:

SET patient_firstname, patient_lastname, patient_address, dateOfbirth, patient_ssn, gender, emailId IN Patient/Caregiver Table as changes are needed

Patient Actor executes Connect IoT Device/Upload Medical Tracking Data Use Case:

EXECUTE setIotData() method

SET patient_heartRate, patient_bloodPressure, patient_sleep IN PatientMedInfo Table

Method 4: authorizeProvAccess()

Method Name: authorizeProvAccess()	**Class Name:** Authorization	**ID:** authorizationId
Clients (Consumers): Patient		
Associated Use Cases: Authorize/Remove Access		
Description of Responsibilities: Allows patient to authorize or revoke a medical provider's access to patient's medical history data		
Arguments Received: providerName		
Type of Value Returned:		
Pre-Conditions: Patient must be authenticated and Provider initiated Request Access use case OR Patient must be authenticated and searches for Provider to authorize		
Post-Conditions: Provider is authorized to view patient's medical history.		

Logic:

System ADDS Request Access notification to homepage visible on patient login

Patient SELECTS Authorize/Remove Access option on menu

Patient SELECTS providerName and approve access

ELSE

Patient SELECTS Authorize/Remove Access option on menu

Patient SEARCHES for providerName

Patient SELECTS providerName and approve access

Method 5: setIotData()

Method Name: setIotData()	**Class Name:** IotData	**ID:** deviceId
Clients (Consumers): Patient		

Associated Use Cases: Connect IoT Device /Upload Medical Tracking Data
Description of Responsibilities: Patient connects medical IoT device to application and uploads medical tracking data.
Arguments Received: patient_id, deviceId
Type of Value Returned:
Pre-Conditions: Patient must be authenticated
Post-Conditions: Medical IoT data is used to update patient's medical history

Logic:

Patient SELECTS Connect IoT Device.

Patient CONNECTS IoT device to application via Bluetooth.

Device IMPORTS medical IoT data.

SET deviceId, date, readingId, heart_rate, bloodPressure, sleep IN IotData Table.

EXECUTE setPatientInfo() method IN PatientMedInfo Table.

Project Management

Project Plan

Our project plan contains project activities (Phase, Category, Description), allocation of activities to team member (Party Responsible), planned timeline (Duration, Expected Start Date, Expected Due Date, Days Late), and execution timeline (% Complete, Completion Date, Status).

Task Number	Phase	Category	Description	Party Responsible	Duration	% Complete	Expected Start Date	Expected Due Date	Days Late	Completion Date	Status
001	PMO	Management	Choose project idea	All	3 days	100%	6/10/2020	6/13/2020	0	6/13/2020	Completed
002	PMO	Management	Choose project manager	All	.5 day	100%	6/13/2020	6/17/2020	0	6/13/2020	Completed
003	PMO	Management	Identify main functions	All	1 day	100%	6/13/2020	6/13/2020	0	6/13/2020	Completed
004	PMO	Management	Identify improvements	All	1 day	100%	6/13/2020	6/13/2020	0	6/13/2020	Completed
005	PMO	Management	Identify emerging technology component	All	3 days	100%	6/10/2020	6/13/2020	0	6/13/2020	Completed
006	PMO	Management	Let professor know what our project idea is	Ankita	.5 day	100%	6/14/2020	6/14/2020	0	6/14/2020	Completed
007	PMO	Management	Establish regular meetings with professor and let him know who project manager is	Ankita	.5 day	100%	6/14/2020	6/21/2020	0	6/21/2020	Completed
008	PMO	Management	Create project activity tracker	Ankita	1 day	100%	6/14/2020	6/17/2020	0	6/20/2020	Completed
009	PMO	Management	Establish roles	All	.5 day	100%	6/13/2020	6/13/2020	0	6/13/2020	Completed
010	PMO	Management	Gather team member schedules (vacation dates, work hours, etc.) and figure out resource allocation	Ankita	3 days	100%	6/17/2020	6/20/2020	0	6/20/2020	Completed
011	Identification	Deliverable	Draft Executive Summary	Jennifer	4 days	100%	6/13/2020	6/17/2020	0	6/15/2020	Completed
012	Identification	Deliverable	Review Executive Summary	Kellie	2 days	100%	6/16/2020	6/17/2020	0	6/16/2020	Completed
013	Identification	Deliverable	Draft Problem Statement	Daveena	4 days	100%	6/13/2020	6/17/2020	0	6/15/2020	Completed
014	Identification	Deliverable	Review Problem Statement	Sahasranshu	2 days	100%	6/16/2020	6/18/2020	0	6/18/2020	Completed
015	Analysis	Deliverable	Draft Business Process Model	Kellie	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
016	Analysis	Deliverable	Review Business Process Model	Sahasranshu	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed

017	Analysis	Deliverable	Draft Context Diagram	Ankita	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
018	Analysis	Deliverable	Review Context Diagram	Daveena	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
019	Analysis	Deliverable	Draft Use Case Diagram	Jennifer	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
020	Analysis	Deliverable	Review Use Case Diagram	Ankita	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
021	Analysis	Deliverable	Draft Use Case Description	Jennifer	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
022	Analysis	Deliverable	Review Use Case Description	Ankita	7 days	100%	6/18/2020	6/24/2020	0	6/24/2020	Completed
023	Analysis	Deliverable	Draft Data Model (Class diagram without methods)	Sahasranshu	7 days	100%	6/24/2020	7/1/2020	0	7/1/2020	Completed
024	Analysis	Deliverable	Review Data Model	Jennifer	7 days	100%	6/24/2020	7/1/2020	0	7/1/2020	Completed
025	Analysis	Deliverable	Document Data Dictionary	Daveena	7 days	100%	6/24/2020	7/1/2020	0	7/1/2020	Completed
026	Analysis	Deliverable	Review Data Dictionary	Kellie	7 days	100%	6/24/2020	7/1/2020	0	7/1/2020	Completed
027	Analysis	Deliverable	Draft Sequence Diagram	Kellie	7 days	100%	6/24/2020	7/1/2020	0	7/1/2020	Completed
028	Analysis	Deliverable	Review Sequence Diagram	Jennifer	7 days	100%	6/24/2020	7/1/2020	0	7/1/2020	Completed
029	Analysis	Deliverable	Draft Functional Specification Document	Jennifer	7 days	100%	7/1/2020	7/8/2020	0	7/8/2020	Completed
030	Analysis	Deliverable	Review Functional Specification Document	Sahasranshu	7 days	100%	7/1/2020	7/8/2020	0	7/8/2020	Completed
031	Design	Deliverable	Draft Interface Design	Daveena	14 days	100%	7/1/2020	7/15/2020	0	7/15/2020	Completed
032	Design	Deliverable	Review Interface Design	Ankita	14 days	100%	7/1/2020	7/15/2020	0	7/15/2020	Completed
033	Design	Deliverable	Draft Database Design	Ankita	14 days	100%	7/1/2020	7/15/2020	0	7/15/2020	Completed
034	Design	Deliverable	Review Database Design	Kellie	14 days	100%	7/1/2020	7/15/2020	0	7/15/2020	Completed
035	Design	Deliverable	Draft Class Diagram with methods	Sahasranshu	7 days	100%	7/8/2020	7/15/2020	0	7/15/2020	Completed
036	Design	Deliverable	Review Class Diagram with methods	Ankita	7 days	100%	7/8/2020	7/15/2020	0	7/15/2020	Completed
037	Design	Deliverable	Draft Software Design	Jennifer	14 days	100%	7/8/2020	7/22/2020	0	7/22/2020	Completed
038	Design	Deliverable	Review Software Design	Kellie	14 days	100%	7/8/2020	7/22/2020	0	7/22/2020	Completed
039	PMO	Management	Finalize Report	All	7 days	10%	7/29/2020	8/4/2020	-6		In Progress
040	PMO	Management	Full Team Review and Edit	All	14 days	10%	7/22/2020	8/4/2020	-6		In Progress

Meeting Minutes

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: June 13, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Identify our project manager that will be our liaison between the team and the professor
- Identify and narrow system's major functions
- Identify at least 2 functionality improvements
- Link at least 1 improvement to an emerging technology (Web 2.0, Mobility, or IoT)

Decisions:

- Weekly Status Call will be set for Wednesday at 6 pm CST for 1 hour minimum using Teams Meeting
- Project Manager: Ankita Ghosh
    - Since this is Ankita's first time working in a management position, she will reach out to team members with experience for guidance
    - Kellie will act as meeting minutes taker as Ankita leads status calls
- Major Functions:
    - Viewing and updating patient medical history: patient contact info (patient only), insurance info (patient only), family history (patient only), health issues, allergies, operations performed or services provided
    - Viewing and updating patient current medications
    - Viewing upcoming, current, and past medical provider appointments and information about provider (what type of provider, etc.)
- Improvements (as least 2):
    - Providers can provide real time recommendations in terms of health by connecting IoT med devices data
    - Central repository of patient information that can be used across different providers
- Emerging tech incorporation:
    - IoT: medical IoT devices like FitBit, Apple Watch, smart devices (thermometers, BP monitors, pulse oximeters, glucose monitors, smart inhalers) that connect to app and send data to med history app and allow med providers access to view history and provide recommendations if there are anomalies/concerns

Action Items and Next Steps:

- Ankita: email professor to confirm our project idea, major functions, and improvements and establish regular cadence as project manager
- Deliverables
    - Executive Summary: Jennifer to draft, Kellie to review and edit

    - Problem Statement: Sahasranshu to draft, Daveena to review and edit
    - Project Management Deliverables: Ankita to start development of activity planner with planned timeline
- Kellie: Set up OneDrive folder to share and edit deliverables

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: June 17, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Walk through project plan and timeline
- Discuss resource allocation – fill out time so Ankita can determine weeks when a team member may be very busy and needs some help from other team members
- Status of deliverables due: Executive Summary and Problem Statement
- Upcoming deliverables: Business Process Model, Context Diagram, Use Case Diagram

Decisions and Status:

- Project Management:
    - Ankita: update the project plan with expected start and due dates
    - All: update Resource Allocation tab as needed (schedule does not have to super detailed, but please note the dates that you know you will be busier than normal)
    - All: review the deliverables assigned to you in the Timeline.xlsx document and reach out to Ankita if you feel uncomfortable tackling a certain deliverable
- Current Deliverables Due:
    - Executive Summary: completed
    - Problem Statement: Sahasranshu to re-review and update by end of tomorrow

Action Items and Next Steps:

- Ankita:
    - Email the professor to schedule a meeting to go through project plan, meet the team, and ask questions and advice
    - Update project plan with expected start and due dates
- Kellie: set up Webex session with dial in for future meetings
- All: decide on if we need a second meeting during the week as a check in (discuss with professor on his suggestions)
- All: re-review functions and improvements and make sure we're in agreement with the purpose of the system
- Deliverables:
    - Business Process Model: Kellie to draft, Sahasranshu to review
    - Context Diagram: Ankita to draft, Daveena to review
    - Use Case Diagram: Jennifer to draft, Ankita to review

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: June 24, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Status of deliverables due: BPMN Business Process Model, Use Case Diagram, Context Diagram
- Upcoming deliverables: Data Model (Class Diagram), Object Behavior Model (Sequence Diagram), Data Dictionary (TBD)

Decisions and Status:

- Project Management:
  - Ankita: updated timeline based on professor's feedback
  - We decided to switch our Wednesday meetings as a working session to present our work and go over as a team to drive consistency between our deliverables and Saturdays would be optional depending on the need, used to do a status check or additional working session
  - System name: MedcoTrac - Sahasranshu to look into AWS hosting if we have time to build prototype
- Current Deliverables Due:
  - BPMN Business Process Model: Kellie presented and group discussed improvements
  - Use Case Diagram: Jennifer presented and group discussed improvements
  - Context Diagram: Ankita presented and group discussed improvements

Action Items and Next Steps:

- Ankita:
  - Email the professor to ask the following:
    - Improvements: do they have to be identified as a current functionality of the system or can they be identified as a future state addition? Which deliverable do we document improvements?
    - Sequence of deliverable build – which deliverables are dependent on others being built first
    - Data security: Do we need to consider data security into our data design (e.g. a cardiologist provider does not need to see information that a dermatologist needs to see)
  - Send out BPMN Business Process Model, Use Case Diagram, and Context Diagram for professor to review after updates
- Deliverables:
  - Updates:
    - BPMN Business Process Model: Kellie to make updates based on feedback
    - Use Case Diagram: Jennifer to make updates based on feedback
    - Context Diagram: Ankita to make updates based on feedback

- New Deliverables to Build:
  - Data Model (Class Diagram): Sahasranshu to draft, Ankita to do initial review
  - Object Behavior Model (Sequence Diagram): Kellie to draft, Jennifer to do initial review
  - Data Dictionary: Daveena to draft, Kellie to review (we need to find out first from professor if this is dependent on the class diagram)

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: July 1, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Status of deliverables due: Class Diagram, Sequence Diagram, Data Dictionary
- Upcoming deliverables: Functional Design Spec, Interface Design, Database Design

Decisions and Status:

- Current Deliverables Due:
    - Sequence Diagram: Kellie presented and group discussed improvements
        - Reduce authorization access to one function (add and remove)
    - Class Diagram: Sahasranshu presented and group discussed improvements
        - Condense Authorization and Patient_Provider tables into one
        - Move patient details in Patient_Provider into Medical History table
        - Remove Provider_Staff table and keep one Provider table
    - Data Dictionary: Daveena presented and group discussed improvements
        - Change layout to match similar ones to project samples or Gas Buddy class example

Action Items and Next Steps:

- Ankita: Send out sequence diagram, class diagram, and data dictionary for professor to review after updates
- Deliverables:
    - Updates:
        - BPMN Business Process Model: Kellie to make updates based on professor's feedback
        - Sequence Diagram: Kellie to make updates based on feedback
        - Class Diagram: Sahasranshu to make updates based on feedback
        - Data Dictionary: Daveena to make updates once Class Diagram is updated
    - New Deliverables to Build:
        - Functional Design Spec: Jennifer to draft, Sahasranshu to review
        - Interface Design: Daveena to draft, Ankita to review
        - Database Design: Ankita to draft, Kellie to review

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: July 9, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Status of deliverables due: Functional Design Spec
- Upcoming deliverables: Interface Design, Database Design, Class Diagram with Methods

Decisions and Status:

- Previous Deliverables:
  - BPMN Process Diagram: Kellie updated
  - Use Case Diagram and Descriptions: Jennifer updated
  - Sequence Diagram: Kellie updated
  - Class Diagram: Sahasranshu updated
    - Update Appointment_ID to Record_ID
  - Data Dictionary: Daveena will update later this week
- Current Deliverables Due:
  - Functional Design Spec: Jennifer presented; no additional improvements needed
  - Database Diagram: Ankita presented and group discussed improvements
    - Will be based on updated class diagram
  - Interface Design: Daveena presented and group discussed improvements
    - Add launch page for patient or provider prior to login page
    - Patient search in View Medical History
    - Add Update Medical History button and page when clicking into patient in View Medical History
    - Change Announcements to Notifications that can show when patients authorize access
    - Add Generate Reports section

Action Items and Next Steps:

- Ankita: Send a note to professor
  - Should the interface design only show functionalities currently documented in use cases or can we show future functionality?
- Deliverables:
  - Updates:
    - Interface Design: Daveena to revise based on use cases (due July 15th)
    - Database Design: Ankita to add ERD (due July 15th)
  - New Deliverables to Build:
    - Software Design: Jennifer to draft, Kellie to review (due July 22nd)
    - Class Diagram with Methods: Sahasranshu to build, Ankita to review (due July 15th)

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: July 12, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Status of deliverables: Data Dictionary, Interface Design, Database Design

Decisions and Status:

- Deliverables Status:
    - Data Dictionary: Daveena presented and group discussed Reports and Statistical Analysis
    - Database Diagram: Ankita presented and group discussed improvements
    - Interface Design: Daveena presented and group discussed improvements

Action Items and Next Steps:

- Ankita: Send data dictionary, database design, and interface design to professor by Tuesday

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: July 15, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Status of deliverables due: Class Diagram with Methods
- Status of previous deliverables: Interface Design
- Upcoming deliverables: Software Design

Decisions and Status:

- Previous Deliverables:
  - Interface Diagram: Ankita and Daveena presented and team discussed improvements
- Current Deliverables Due:
  - Class Diagram with Methods: Ankita presented and team discussed improvements

Action Items and Next Steps:

- Deliverables:
  - Updates:
    - BPMN Model: review that model is still in line with other documents (VP demo expires July 20)
    - Sequence Diagram: update life lines based on class diagram
    - Class Diagram (both) and Database Design: updates to class connections and new class for Users; for Class Diagram with Methods: update to methods
    - Data Dictionary: update based on class diagram
    - Interface Design:
      - Add pages for linking IoT data and requesting patient access
      - Remove appointment references in welcome pages
      - Reorganize order of pages to show patient pages first, then provider pages
      - Reorganize menu structure
  - New Deliverable to Build:
    - Software Design: Jennifer to draft, Kellie to review (due July 22nd)

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: July 22, 2020

Attendees:

- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Status of deliverables due: Software Design
- Status of previous deliverables: Interface Design, Class Diagram, Sequence Diagram

Decisions and Status:

- Previous Deliverables:
    - Class Diagrams and Database Design: Ankita presented, no additional improvements
    - Sequence Diagram: Kellie presented, update IoT sequence diagram and make sure consistent with use case and class diagram
    - Interface Diagram: Ankita presented and team discussed improvements
        - Missing Connect IoT device page
        - Updates to Request Patient Access page
        - General layout updates
            - Add menu icon to top to indicate menu
            - Keep consistent with logo icon
            - Reports and Stat Analysis as sub menu of View Medical History
- Current Deliverables Due:
    - Software Design: Jennifer presented and team discussed improvements

Action Items and Next Steps:

- Deliverables:
    - Interface Diagram: Sahasranshu and Ankita to update
    - All: Review your documents and check for consistency

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: July 29, 2020

Attendees:

- Daveena Cooper
- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Review of deliverables

Decisions and Status:

- Review of Deliverables:
    - Interface Diagram: Ankita presented and team discussed improvements
    - Class Diagram: Ankita presented and team discussed improvements
    - Sequence Diagram: Kellie presented and team discussed improvements
    - Team discussed additional deliverables that improvements (data dictionary, software design)

Action Items and Next Steps:

- Ankita to email professor to review data dictionary
- Kellie to compile documents to final deliverable
- Final meeting to review – Saturday at 6 pm

MIS 6308.0W1	Group 1	MedCoTRAC	Meeting Minutes

Date: August 1, 2020

Attendees:

- Jennifer Fiebrantz
- Ankita Ghosh
- Sahasranshu Purohit
- Kellie Tseng

Agenda:

- Review of deliverables

Decisions and Status:

- Review of Deliverables:
  - Class Diagram and Database Design need to be consistent
  - Data Dictionary: Kellie updated
  - BPMN Model: Kellie updated
  - Software Design: Jennifer updated

Action Items and Next Steps:

- None