# Overall description

For many residents in Northern Ontario living in remote areas, it is difficult to get medication from regional hospitals. The hospital needs a system to take care of these residents.

# Use cases

## Actors

Applicant - a person who wants to use the service and applies for registration

User - a person who use the service

Resident - a person who lives in Northern Ontario and needs medical help

Medication provider - a person who can provide medication support to Northern Ontario residents

## Use case: Registration

### steps

* actor actions:
  1. Applicant clicks "register" button
  2. Applicant fills in their information
  3. Applicant checks their role (resident or medication provider)
  4. Applicant clicks "submit"
* system responses:
  1. (frontend) system checks if the username/password contain invalid char
  2. (backend) system checks if the username already exists. (async get)
  3. (backend) system inserts new user info into the database
  4. (frontend) system notifies user if their input is invalid
  5. (frontend) system jumps to the login page if new account is created successfully
* System functional requirements:
* System registers new applicants
* Goal:
* system should gather enough information to provide the service

## Use case: Login

### steps

* actor actions:
  1. User clicks "login" button
  2. User fills in username and password
  3. User clicks "submit"
* system responses:
  1. (backend) system check if the user exists
  2. (frontend) system notify user if their input is invalid
  3. (frontend) system jump to the profile page
* System functional requirements:
* System logins users
* Goal:
* Login users

## Use case: Information Uploading

### steps

* actor actions:
  1. User clicks "Update information" button
  2. User updates their info
  3. User clicks "submit"
* system responses:
  1. (backend) system check if the updated info is valid
  2. (frontend) system notify user if their input is invalid
  3. (frontend) system jump to the profile page
* System updates users' info
* Goal:
* Update users' info

## Use case: Automatic Uploading Health data From Medical Devices

### step

* actor action:
  1. resident binds their medical device(s) with the system
* system responses:
  1. (backend) system adds medical device(s) to the database
  2. (backend) system receives requests from device(s), system should be able to find the corresponding resident and provide medical help.
* System functional requirements:
* System automatically react with medical device(s)' requests
* Goal:
* Provide immediate medical assistance in emergent situation

## Use case: Doctor Recommendation System

### step

* actor action:
  1. resident describes their health conditions and sends a request for doctor's help
* system responses:
  1. (backend) system helps the resident to find the best suitable doctor
* System functional requirements:
* System find the best suitable doctor for residents
* Goal:
* Every resident can get their immediate medical help

## Use case: Doctor's permission to access residents' health info

### step

* actor action:
  1. Medication provides can get access to residents' health info after getting latter's consentient.
* system responses:
  1. (backend) system check if medication provider has the privilege to access resident's data
  2. (backend) system send info that related to the medication support to the medication provider.
* System functional requirements:
* System provide necessary data to medical provider
* Goal:
* Provide health data while maintaining resident privacy

## Use case: Online Medical Instruction

### step

* actor action:
  1. Resident can conduct online health consultations
  2. Resident can show their health data with medication provider
* system responses:
  1. (backend) system recommends medication providers to resident
  2. (backend) system handles the data exchange during the consultation
  3. (backend) system handles medication providers' permission to access residents' health info
* System functional requirements:
* System provide consultation platform for residents and medication providers.
* Goal:
* Provide immediate online health service to resident

## Use case: System Alarm

### step

* actor action:
  1. Resident clicks the "Emergency" button or their medical device reports an emergency.
* system responses:
  1. (backend) system match the closest available doctor to provide medical help.
* System functional requirements:
* Provide high-priority service to resident in emergency scenarios.
* Goal:
* Medication provider(s) can provide help as fast as possible