

# SMS Medical Appointment Reminder Webapp Demo



<https://tinyurl.com/sms-reminder-presentation>

Presented by  
Ijeoma Ezeonyebuchi  
and  
Steven Yan



## Phase 1: Client Meeting

### Given Challenges:



- Easily lose track of postcard reminders
- Manual entry of appointments individually into calendar
- Different levels of computer literacy for veterans



### Potential Solutions:

- Needs calendar integration (ICS universal for all phones)
- Develop webapp for provider
- Develop mobile app for patient
- Automated SMS reminder system for non-tech savvy veterans



## Given Challenges:



- **Easily lose track of postcard reminders**
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- Needs universal  
- Develop  
- Develop  
- Automate system for veterans

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**Provider  
End**

## Phase 2: Brainstorming and Planning



**Patient  
End**

## Provider End

- Develop a **web application** to interact with hospital server to send and receive relevant **information through APIs**
- Without details about the VA, we created an interface for **manual entry of patient appointments using Flask-sqlalchemy database within Flask web app.**
- Perform and the following actions with appointments and the EHR (Electronic Health Record):
  - **confirmed**
  - **rescheduled**
  - **modified**
  - **canceled**
  - **no showed**

## • Frontend End

- Develop a **web application** to interact with hospital server to send and receive relevant **information through APIs**
- Without details about the VA, we created an interface for **manual entry of patient appointments using Flask-sqlalchemy database within Flask web app.**

- Perform the following actions with appointments and the EHR (Electronic Health Record):
  - **confirmed**
  - **rescheduled**
  - **modified**
  - **canceled**
  - **no showed**

## Patient End

- Use **Twilio platform** to send and receive SMS messages
- Patients will receive **an initial text after booking** the appointment
- They will have capability to **respond to SMS to receive ICS file** for easy integration
  - iPhone have capability to create calendar event from any SMS with time details, but Android requires additional software
- At a **default of 48 hours** prior, patient will receive a **second text reminder SMS to confirm or cancel** appointment.
  - reminder time is adjustable to different intervals

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# Phase 3: Coding

Components

Tech  
Stack

# Components

Landing  
Page

New  
Appointments

Texts



## Provider Portal for SMS Reminders for Medical Appointments

[New Appointment](#)[Edit Appointment](#)

| First Name | Surname | Mobile       | Provider First | Provider Last | Location       | Reminder | Time                | Timezone      | Actions  |
|------------|---------|--------------|----------------|---------------|----------------|----------|---------------------|---------------|--|
| Steven     | Yan     | 646-991-4222 | Marie          | Curie         | Warsaw, Poland | 1        | 2021-10-26 13:00:00 | Europe/Warsaw | <a href="#">Edit</a><br><a href="#">Delete</a> |



## Provider Portal for SMS Reminders for Medical Appointments

Patient First Name

Patient Last Name

Patient Mobile Number

Provider First Name

Provider Last Name

Appointment Location

Reminder Interval  48 hours

Appointment Time

Appointment Timezone  UTC



+1 (646) 762-9099 >

Text Message  
Saturday 6:20 PM

Sent from your Twilio trial account -  
Hello Steven Yan, this is your friendly  
reminder of your upcoming  
appointment on Oct-25 at 4:00pm.  
Respond 1 to confirm, respond 2 to  
cancel. Please call directly to  
reschedule.

Today 12:41 PM

Sent from your Twilio trial account -  
Hello Steven Yan, your appointment is  
booked for Oct-26 at 3:00pm. Reply 3  
for ICS calendar file.

# Tech Stack

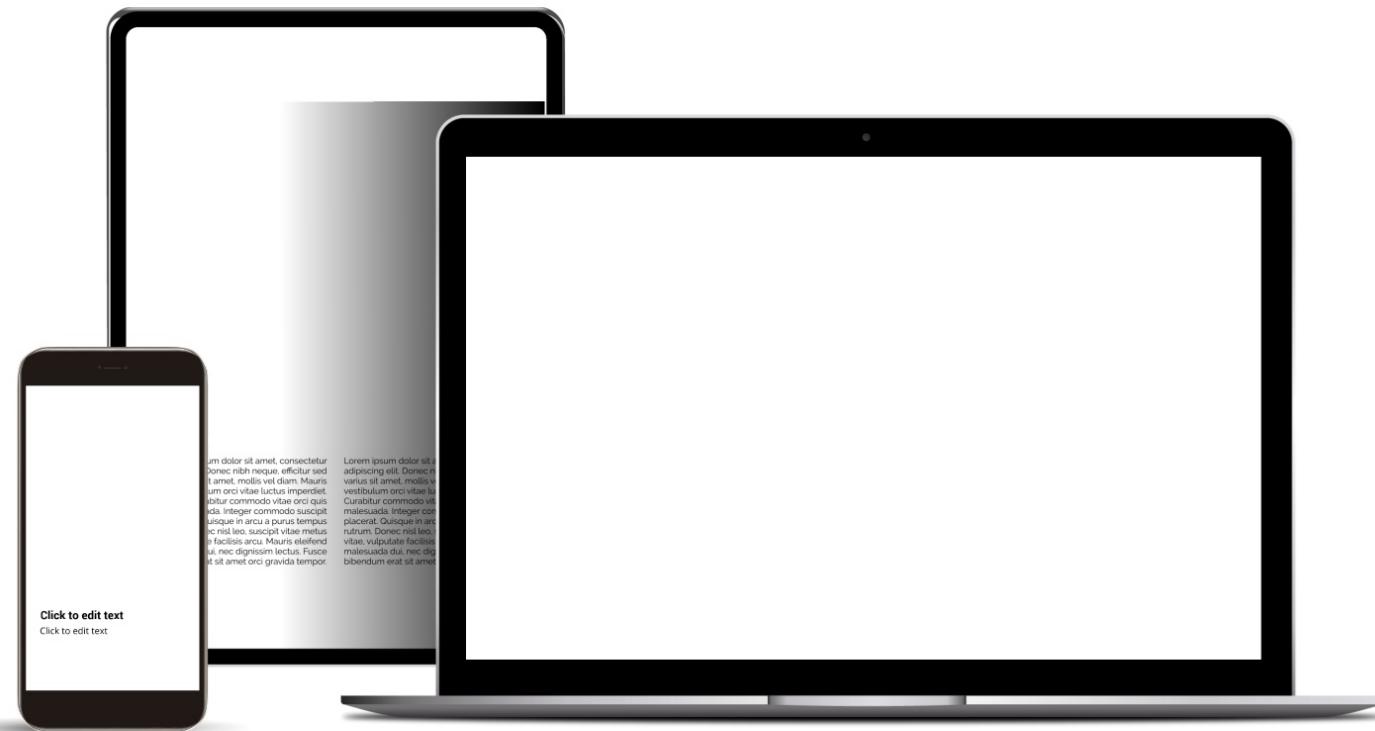


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**Thanks to everyone at DataKind for organizing this Equalithon and connecting us to such worthy organizations and causes in celebration of Mental Health Day.**

**Thanks to the Queens VA for considering our demo project in hopes of bettering the veteran's quality of life especially in scheduling, handling, and remembering their medical appointments so as to ensure they receive their proper care.**

**Of course, thanks to the co-founders Hugues and Marie and project mentor Abigail for the immeasurable amount of guidance throughout this project.**

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<https://datascisteven.github.io>

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