

MICHIGAN STATE

U N I V E R S I T Y

Beta Presentation

Patient Training Tool

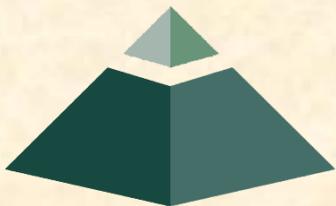
The Capstone Experience

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Spring 2019



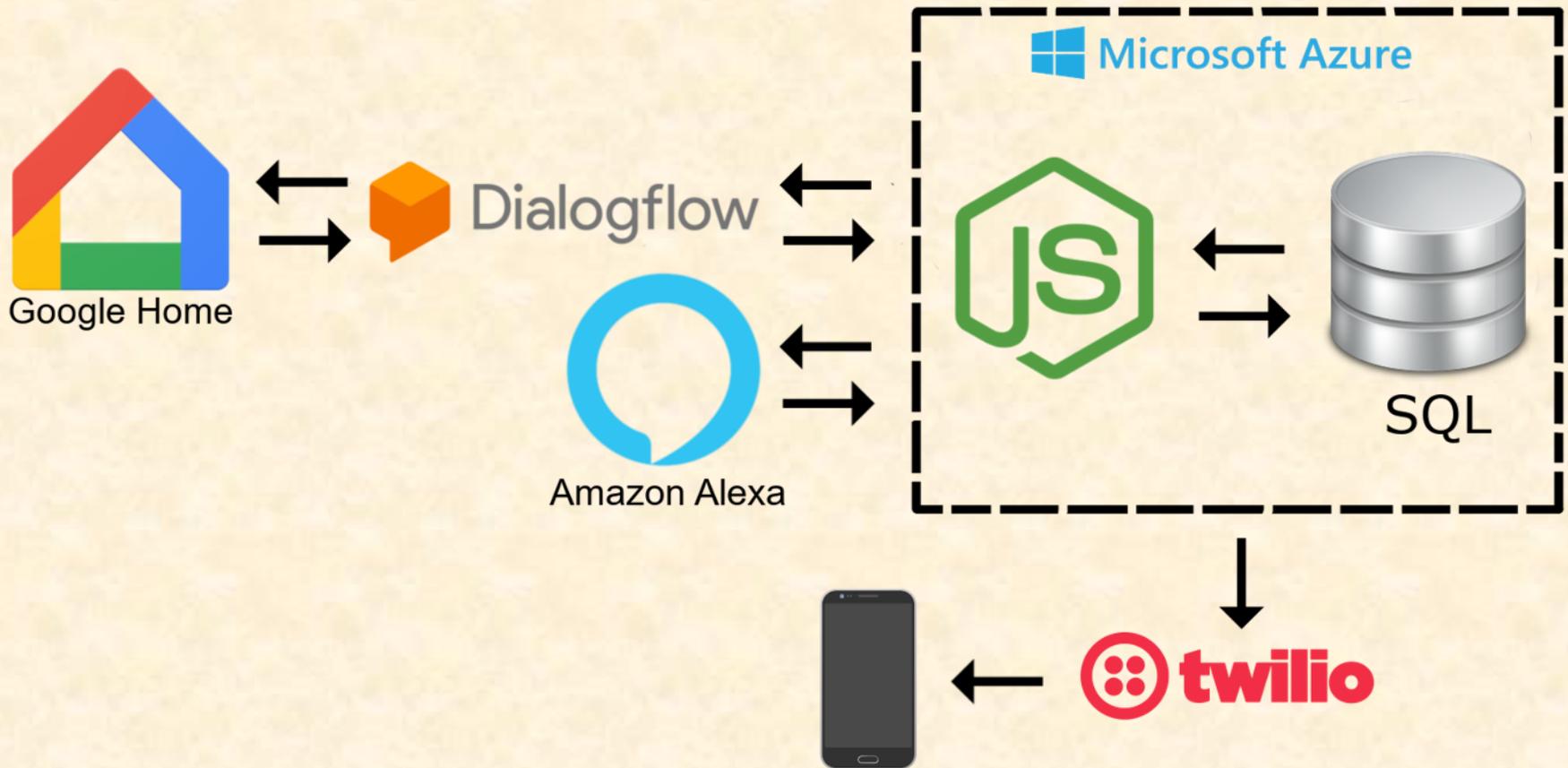
From Students...
...to Professionals

Project Overview

- User lists their symptoms to Google Home or Amazon Alexa
- Chatbot explains potential condition to user
- Chatbot recommends a Spectrum Health service
- User informs chatbot which service they utilize
- Service weights are adjusted for future recommendations



System Architecture



Condition Matching & Explanation

Talk to Patient Training Tool

Alright. Let's get the test version of Patient Training Tool.Hello! I am the Patient Training Tool. Could you tell me some symptoms or a condition that you're experiencing?

I have ear pain and vertigo

It sounds like you're experiencing the following condition: earaches. Would you like me to explain earaches?

Yes please

An earache is a pain in the ear. Based on this condition, I recommend you visit the urgent care, but what service would you prefer to use?

I'll go to urgent care

I will take that into account. I hope you feel better soon. Would you like me to find the nearest Urgent Care ?

No

Feel better soon



Patient Requests Link

 Based on this condition, I recommend you visit the MedNow, but what service would you prefer to use?

 I'll just do an eVisit, thanks.

 I will take that into account. I hope you feel better soon. Would you like me to send you a link to eVisit ?

 Sure

 Sure, I will send you a message. What is your phone number?

 431-920-1032

 You should receive a message shortly. Feel better soon.

Condition Rejection

Talk to Patient Training Tool

Alright. Here's the test version of Patient Training Tool.Hello! I am the Patient Training Tool. Could you tell me some symptoms or a condition that you're experiencing?

I have redness and tears in both eyes

I need more symptoms in order to give an accurate diagnosis. Could you please list more if possible?

I have a slight blurring of vision too

It sounds like you're experiencing the following condition: pink eye. Would you like me to explain pink eye?

No thanks

Based on this condition, I recommend you visit the MedNow, but what service would you prefer to use?

I'll just do an eVisit, thanks.

I will take that into account. I hope you feel better soon. Would you like me to send you a link to eVisit ?

Sure

Sure, I will send you a message. What is your phone number?

431-920-1032

You should receive a message shortly. Feel better soon.

Alternative Diagnosis

Talk to Patient Training Tool

Sure. Let's get the test version of Patient Training Tool. Hello! I am the Patient Training Tool. Could you tell me some symptoms or a condition that you're experiencing?

I am experiencing fatigue

I need more symptoms in order to give an accurate diagnosis. Could you please list more if possible?

No

You might be experiencing the following condition: shock. Would you like me to explain shock?

That is not possible

I understand. You may be experiencing the following condition: sinus problems. Based on this condition, I recommend you visit the MedNow, but what service would you prefer to use?

I will use MedNow

I will take that into account. I hope you feel better soon. Would you like me to send you a link to MedNow ?

No thanks

Feel better soon

What's left to do?

- Make bot sound more natural
- Add more training phrases to improve Natural Language Processing Model
- Improve launch time
- Add more synonyms for symptoms in order to recognize wider range of user inputs



Questions?

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