

Date: November 29, 2020
To: [REDACTED]
From: Ray Eckman
Subject: Medication Refill and New Appointment Chatbot

Enclosed is a written report regarding the previously proposed Chatbot designed for the purpose of helping clients refill medications and set appointments with doctor's offices in a quick and easily accessible manner.

Included in the report is an audience analysis and various forms of chatbot script prototypes demonstrating the efficacy of the current form of the chatbot.

I hope that the enclosed information is a convincing example of the potential efficacy of this chatbot and will give you the necessary information going forward to make the decisions that will bring it to fruition. If there are any questions or concerns, I am available by phone at [REDACTED] and by e-mail at rayeckmanfreelance@gmail.com.

Regards,

Ray Eckman

Purpose

When a patient is placed on a medication that is a long-term need but has to be refilled at regular intervals, they often have to use precious time to contact a medical care provider in order to be given a refill for an already-established medical issue. This also takes up time in the medical care provider's already busy schedule. A chatbot designed to ask a patient the proper questions and query a local database of records provided by the medical care provider's office could make this interaction automatic, quick, and painless. If there is a need to set an appointment to see a doctor, the chatbot would also have the functionality to contact the doctor's office on behalf of the client and begin the process for setting an appointment.

Audience

User: A person with a recurring prescription that needs another prescription filled.

Says <ul style="list-style-type: none">• I need this prescription. It can't wait.• I'm grateful that I can see the doctor.	Thinks <ul style="list-style-type: none">• Why is this always such a process?• I don't have time for this.• If I go to half my prescription per day, can I make it another week?• Is my insurance covering this properly?
Does <ul style="list-style-type: none">• Makes appointment.• Calls pharmacy.• Waits in line.	Feels <ul style="list-style-type: none">• Annoyed.• Overwhelmed.• Stretched too thin.• Anxious•

Persona

Ted Frantz



Personal

- Ted is in his late 20s or early 30s.
- He's a young professional with a bachelor's degree.
- He is busy.

Professional

- Ted regularly works 10 hour days.
- He has begun climbing the ladder in his career and time is a luxury.

- He also has a need for medications, but very little time to actually go and visit a doctor.
- He has a phone glued to his hand and it would be most convenient to be able to access this chatbot function through his phone.

Technical

- Phones and computers are comfortable for Ted. Because he is so often on the go, his phone is his best tool for accessing anything.

Motivations

- Ted is motivated by success, free time, and money.
- He needs to be able to save time wherever he can.
- He dislikes having to go to the doctor's office because it interferes with his schedule and because he can't control the amount of time it will take.
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Context for Use

In order to match the needs of our target audience, a web-based application that is built to function as well on a computer as it is on mobile devices will be important. The application should support text entry, but also have easily-clicked buttons for users to quickly respond to the chatbot's questions.

Functionality

Once the user enters the chat, the chatbot will introduce itself, explain its purpose, and gather the user's name and any other pertinent starting information. It will then prompt the user to choose which of its services the user is requesting—namely, whether the client needs to contact a pharmacy to refill an existing medication, contact a doctor's office for authorization to refill a medication, or contact a doctor's office to set a new appointment. After the user defines their need, the chatbot will then ask further questions to establish the location of the client, their preferred pharmacy or doctor's office, and further contact information in order to follow up on the request.

The chatbot will query databases of pharmacists and doctor's offices with whom we have established a relationship. If the user requests a location, doctor, or pharmacy that is not within our system, they will be asked for the information of the pharmacy or doctor's office in order to generate potential leads and redirected to the closest available option to them.

Personality of the Chatbot

The persona of the chatbot is a young, peppy woman named Joy. She is in her late twenties, will utilize conversational and plain language, will employ punctuation and emojis that match her target audience, and is meant to be fun and kind. Her error messages will be designed to be as soft as possible in order to not frustrate the user.

Task-led Conversational Design

Because so much of the concept of this chatbot is built around simplifying the tasks surrounding refilling a medication, Joy's conversational design will be largely task-led. Each conversation point is built around getting a user to answer a pertinent question in order to move on to the next phase of the conversation and streamline the end goal of refilling the user's medication as easily and quickly as possible.

Design Features

In order to ensure that Joy is as easy to use as possible, she will be designed to resemble popular chatting apps like Facebook messenger. A chat entry box will primarily be how the user interacts with Joy. To make the process as streamlined as possible, the task-related responses will be clickable buttons in the chat that allow a user to simply click to respond if they don't wish to write out their response.

Human-centered Interactions

To make Joy as accessible and easy to use as possible, she'll use language that is comfortable to her target audience. Her responses will be concise, clear, and easy to read. She'll never give so much information that the user will not want to read it. To best emulate reality, there will be a delay to her responses to make the user feel as though she is typing them out in real-time.

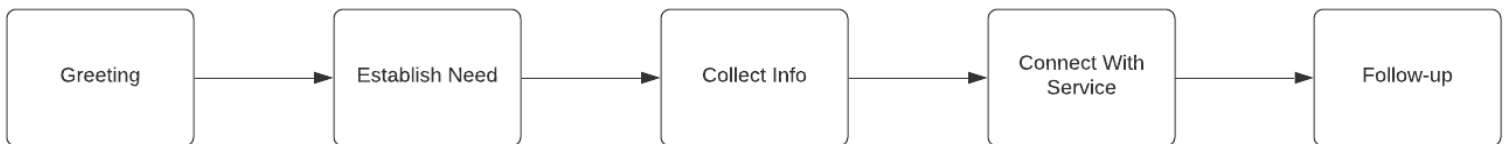
Divergent Conversation Paths

If user enters text that Joy doesn't understand, gets off-topic, or enters values that are not pertinent to Joy's purpose, she will tell them that she's not sure what they mean and propose the last pertinent step to them again. If the responses continue to be irrelevant past 5 entries, she will direct the user to contact a human operator by giving them the option to open a chat with them or an e-mail or phone number to call.

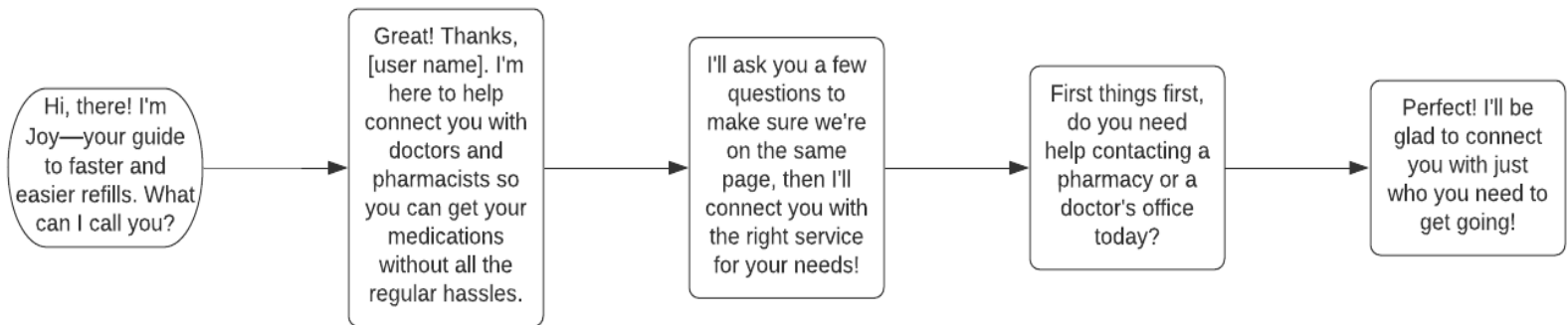
Human Intervention and Feedback Mechanisms

If a user is unable to understand Joy or triggers too many error responses, Joy will automatically direct them to a real person they can chat with. While this function may not be available in real time, Joy will gather the user's info and direct them to await the response of a human operator.

High-level Flowchart

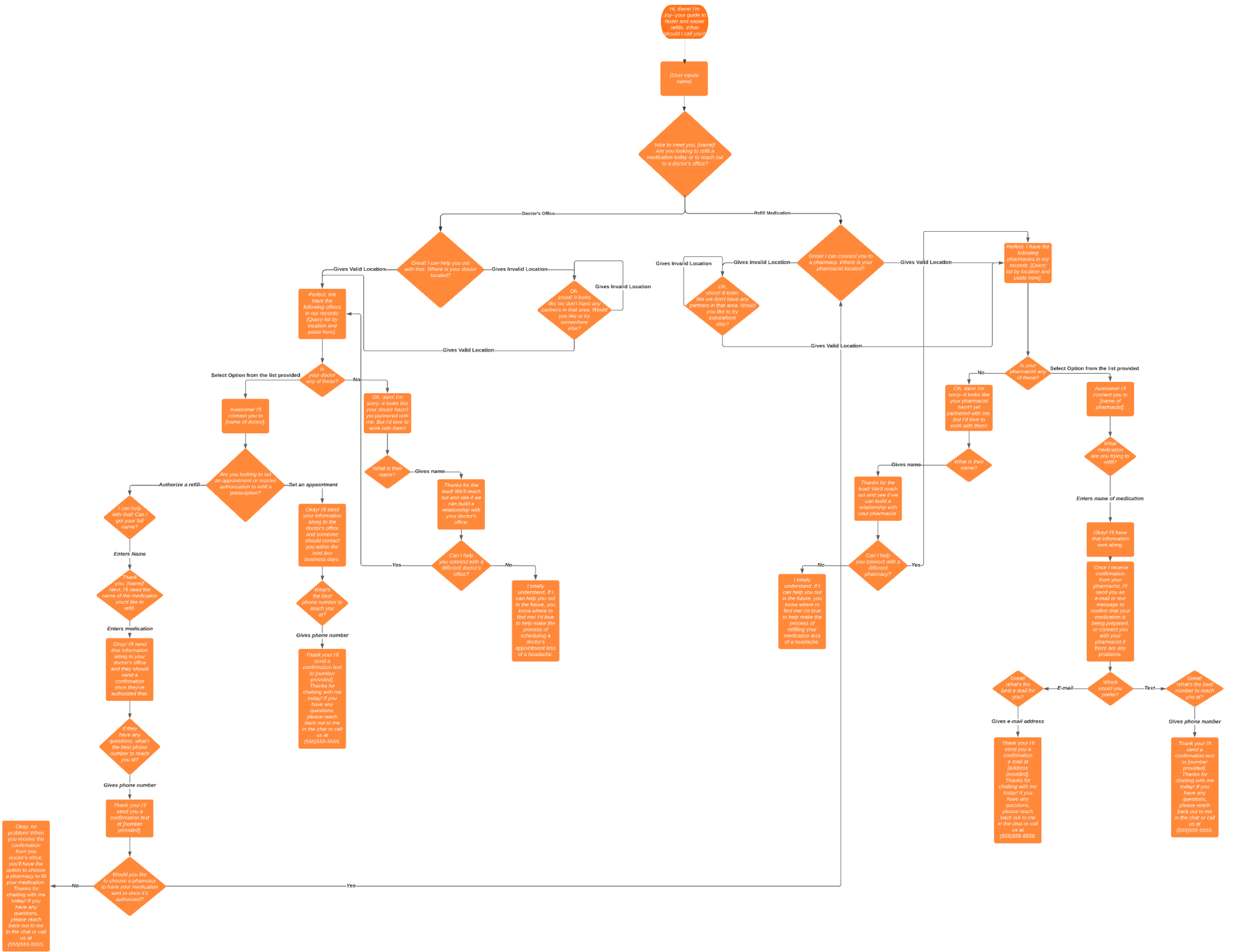


Onboarding Flow

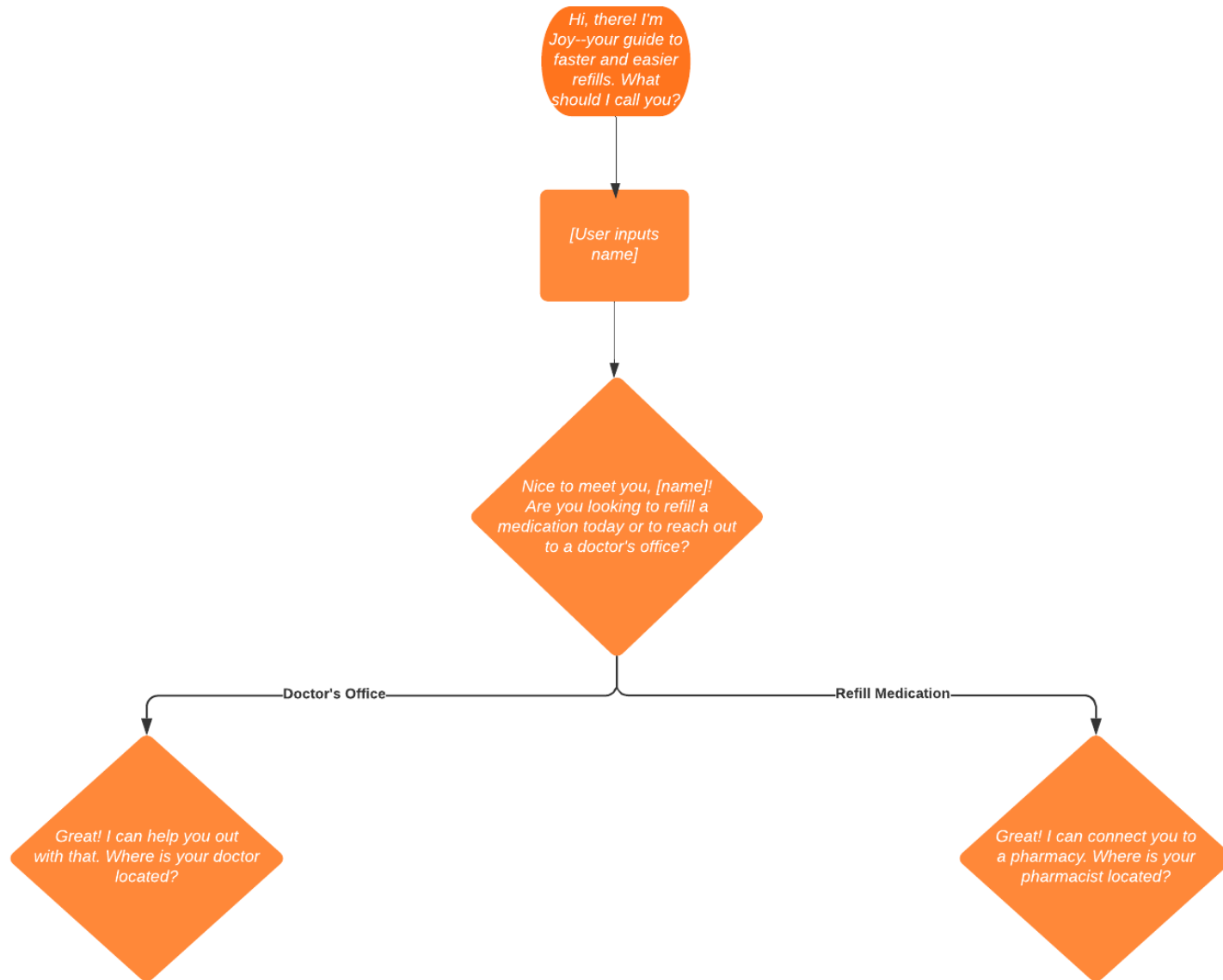


Detailed Chatbot Decision Tree

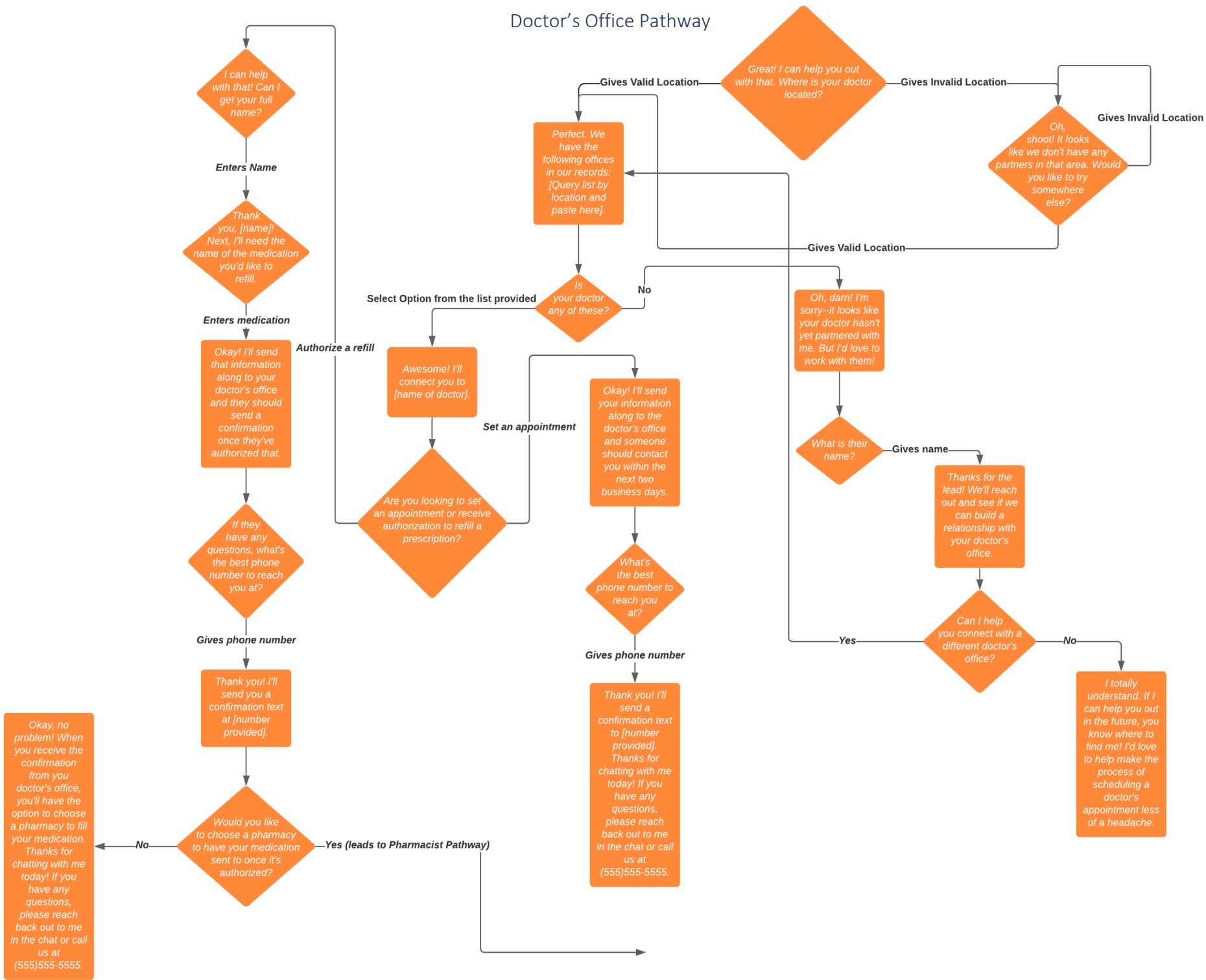
For your convenience, a zoomed-out version of the full decision tree prototype as well as zoomed in portions of each branch have been provided. The detail on the zoomed-out version is high enough quality to read in its entirety when zoomed in on.



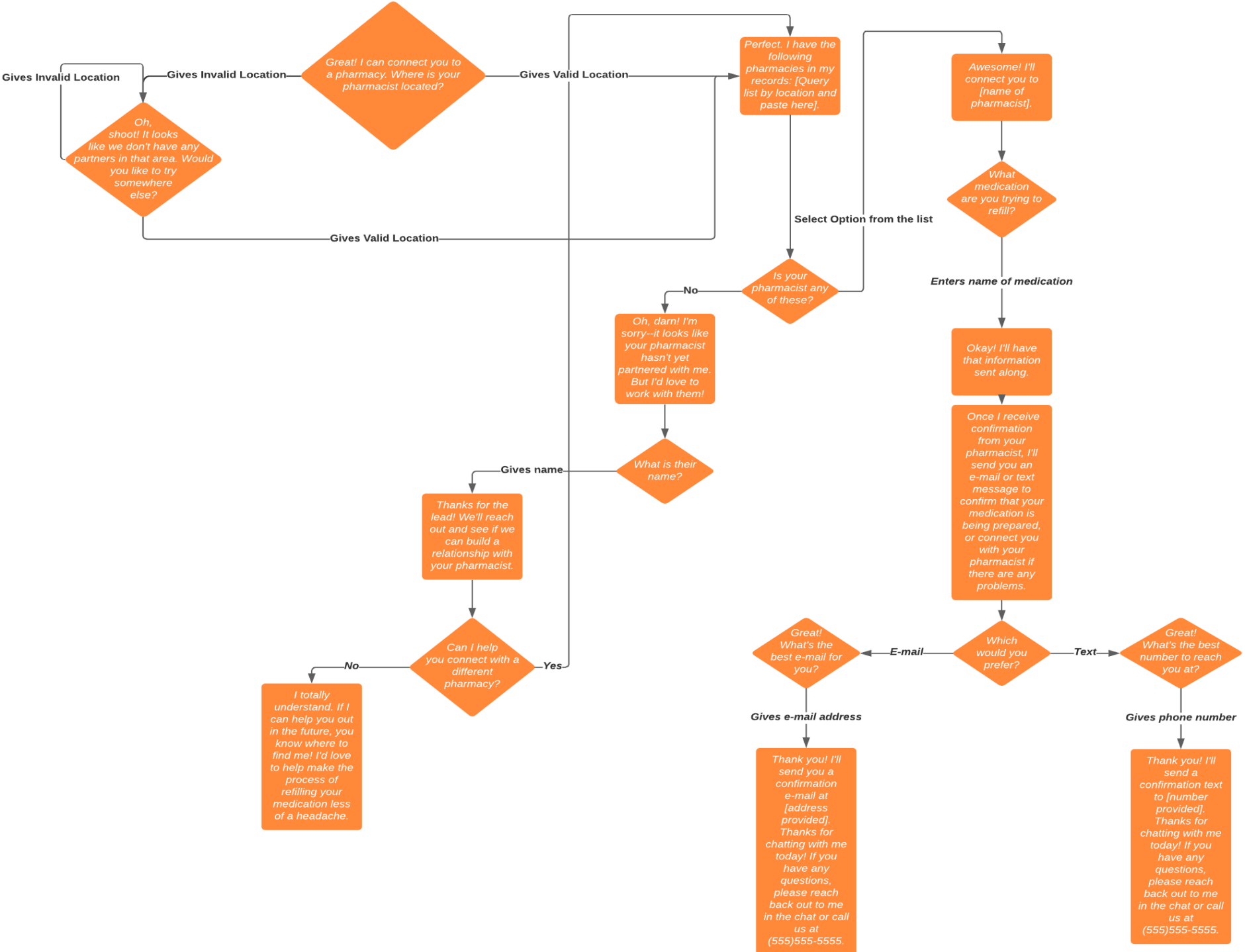
Onboarding Pathway



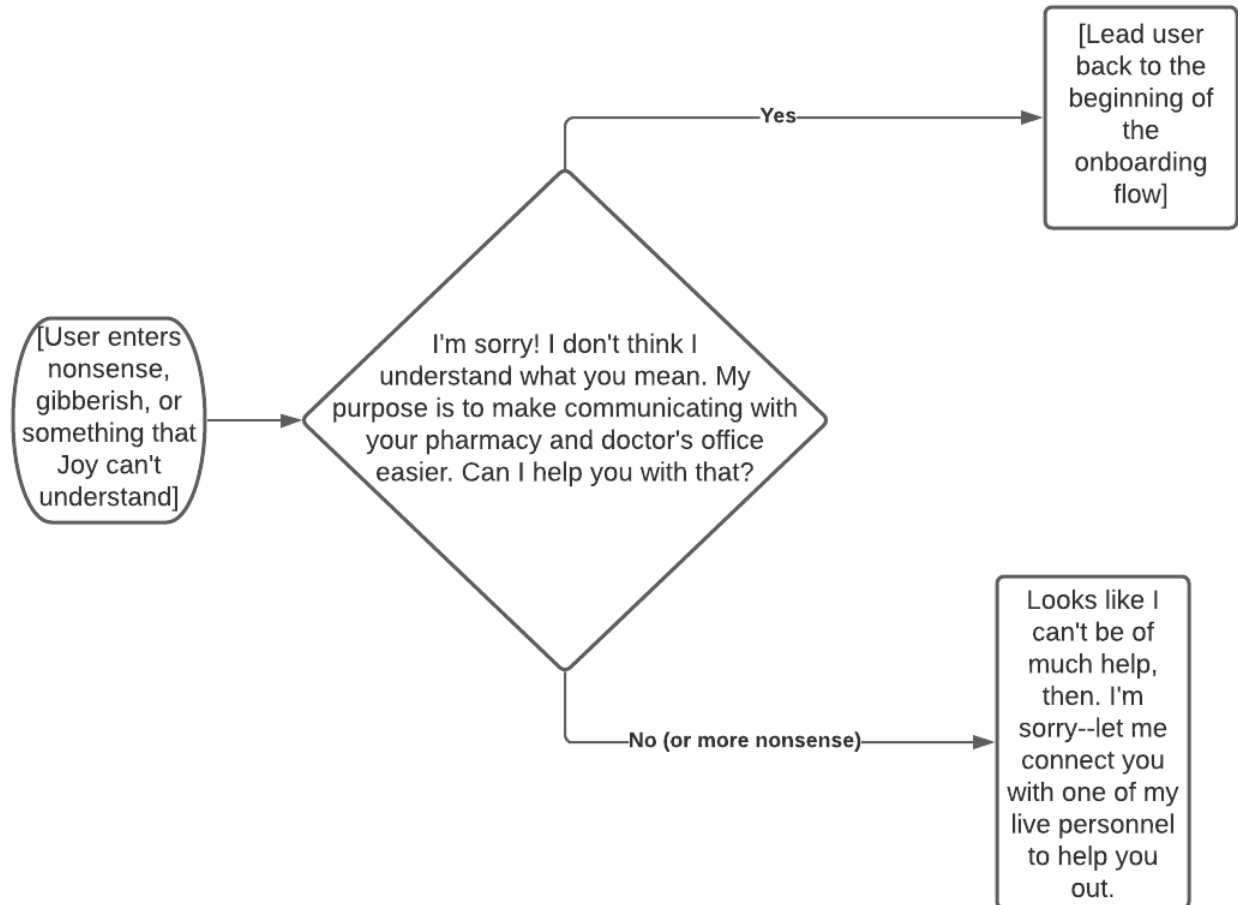
Doctor's Office Pathway



Pharmacist Pathway



Error-handling Flow



Conclusion

Joy is a great solution for the time-starved young professional with prescription needs. She can help set appointments for doctor's offices, obtain authorizations for refilling prescriptions, and contact pharmacies to start the refill process. With some fine-tuning, the prototypical conversation flows that I have provided will lead to an easy-to-use, friendly chatbot who will make easier the lives of those interfacing with her.