Microsoft Power Virtual Agents in a Day

Lab 10: Topic Design

Hands-on Lab Step-by-Step

September 2020

Contents

Lab Prerequisites

This lab is subject to the Terms of Use on page 9 of this document.

There are no pre-requisites for this lab and although you may want to refer to the product to check out capabilities available to you, this lab requires only paper and pen.

Goals for this lab

After this lesson you will be able to:

Create a topic design for a successful chatbot conversation.

The time to complete this lab is [30] minutes.

Exercise 1: Select a topic to design

If you've decided to make a chatbot for your organization, you probably have a specific purpose in mind; for example, you might want to answer frequently asked questions without engaging one of your employees every time, or help customers place orders or schedule appointments.

When you sit down to start making your chatbot, you may wonder where to start. What topics should your chatbot cover? How do you break up the content into separate topics?

Taking time to plan your topic coverage will help you make most efficient use of your authoring time and give your bot the best chance to successfully meet your goals and delight your bot users.

When first thinking about what topics your bot will need, it can be helpful to think about all the interaction points customers have with your company or organization. It's essential to consider this from the point of view of the people who will be using your bot, not what may be going on behind the scenes.

When choosing topics to cover in your chatbot, focus on impact, not breadth.

In the example above, perhaps your most frequent support issue is order tracking, your lengthiest support calls are about product advice, and your support agents are very successful at upselling warranties. Those would be three things to focus on when starting your bot project.

- Be highly focused on what your customers are actually seeking assistance with, rather than on comprehensively covering your product's feature set or your entire business.
  - o Before your bot is in production, you can learn about what your customers need by talking to the people currently handling customer inquiries, and by looking at page view metrics for your website.
  - o After your bot is in production, you can use session transcripts from Power Virtual Agents to help discover what your users are asking about in your chatbot.

This lab will focus on the design of a single topic.

Instructions for exercise

In this lab, you'll design a topic on paper. Ideally, pick a topic that you really want to solve in your chatbot, or use one of the examples below.
1. Brainstorm potential topics.
2. Choose one topic to work on.
3. On a blank sheet of paper, write your topic's name.

Considerations

- If you are the person currently answering customer questions, perhaps there are some questions that you could answer in your sleep because they get asked over and over and over. One of those would be a great topic for this lab!
- Pick a topic that has some complexity but can be fleshed out during this exercise.

Examples

- I would like to know if my order has been shipped.
- What are your store hours?
- I'm trying to redeem a gift card, but it's not working.
- I'd like to schedule an appointment.

Exercise 2: Scope the problem

Many times, providing the right answer to a question starts with "Well, that depends...."

For example, providing next steps for tracking a shipment might depend on whether the user knows their order number. Store hours might depend on date and location. A software support question might depend on the product version number and operating system.

What does your answer depend on?

We're not trying to answer the question yet, just trying to understand what specific problem we're dealing with. Think about this phase as asking questions to understand exactly which answer you need. (If you're someone who regularly answers customer questions, you're probably really good at this.)

(In a later exercise, we'll talk about techniques to minimize actually having to ask the user those questions.)

You may be surprised at how many different answers one topic can have. You'll need to monitor conversations and iterate your design over time.

But, go ahead and be lazy! What is the *least* information you need to match up your customer with the right answer? Asking fewer questions keeps your customer engaged and keeps your bot authoring efforts efficient.

Instructions for exercise

Using the blank paper with the topic you chose:
1. Write down the <u>questions the user might ask the bot </u>that should start this topic. These are your topic "triggers."

2. Then, write down the <u>questions the bot should ask </u>to narrow down the scope of the problem. What are the possible responses to your questions?

3. Use these questions to <u>create a logical conversation tree</u> for the steps needed to determine which solution your user needs (in other words, that you know exactly what the issue is).

Considerations

- Does thinking about the triggers change what you thought was the scope of the topic? Or, do you realize after scoping your topic that there may be other ways customers may describe the issue?
- What's the best question to start with so that you ask the fewest questions possible for each bot user?
- Ensure that you're considering the topic from your user's point of view, using words your user will use.

Example

Triggers

- Customer wants to track an order
  - ➤ I want to track my order
  - ➤ Where is my shipment?
  - ➤ When will my order arrive?
  - ➤ I haven't gotten my item yet
  - ➤ I expected my order to arrive by now

Questions to ask

- Do you know your order number?
- Is the customer a member (has an account) or a guest?

We'll keep this example simple, but you can imagine quite a bit of complexity if you have different answers for business customers vs consumers, or different types of products, or whether the purchase was made online or in person, or overseas shipments. If knowing the order number makes all the other questions irrelevant, then ask about that first.

Conversation tree

```
                    ┌──────────────────────┐
                    │   Has order number?  │
                    └──────────────────────┘
              Yes                        No
        ┌─────────────────┐       ┌──────────────────┐
        │ Answer if they  │       │  Has an account? │
        │ know their      │       └──────────────────┘
        │ order number    │     Member          Non-member
        └─────────────────┘  ┌──────────────┐ ┌──────────────┐
                             │ Answer if    │ │ Answer if    │
                             │ member with  │ │ guest order  │
                             │ no order     │ │ with no order│
                             │ number       │ │ number       │
                             └──────────────┘ └──────────────┘
```
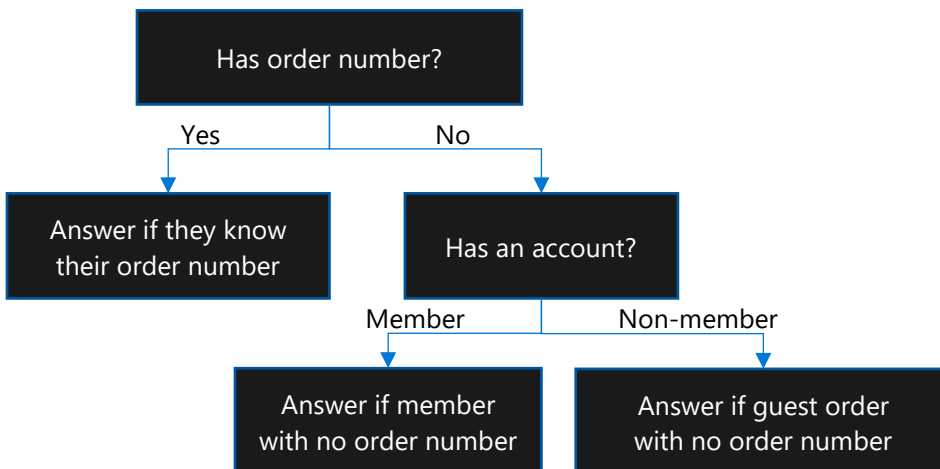
Exercise 3: Gather context

Simply put, context is the answers to those clarifying questions you just wrote down.

The cool thing is, Power Virtual Agents offers many features that enable you to get the answers without actually asking the user the questions.

That's a good thing, because your customers will appreciate having a personalized experience and will be annoyed if you ask what they consider to be "dumb questions," such as questions your organization already knows the answers to.

These are the ways you can figure out the answers to those scoping questions from the previous lab:
- Ask the user
- Have the chatbot recognize entities in what the user already told you
- Use Power Automate to look up the answer

Instructions for exercise

For your topic tree:
1. Identify where you could gather context without having to ask a question.

Use context to:
- Avoid asking questions you should know the answers to
- Keep the user in the chatbot experience instead of sending them to other sites

Considerations
- What do we already know, or could find out, about the user, service status, etc.?
- Some context will require the user to sign in, which can be handled using the Power Virtual Agents bot.

Example

```
┌─────────────────────────────┐
│      Has order number?      │
└─────────────────────────────┘
    Yes              No
```
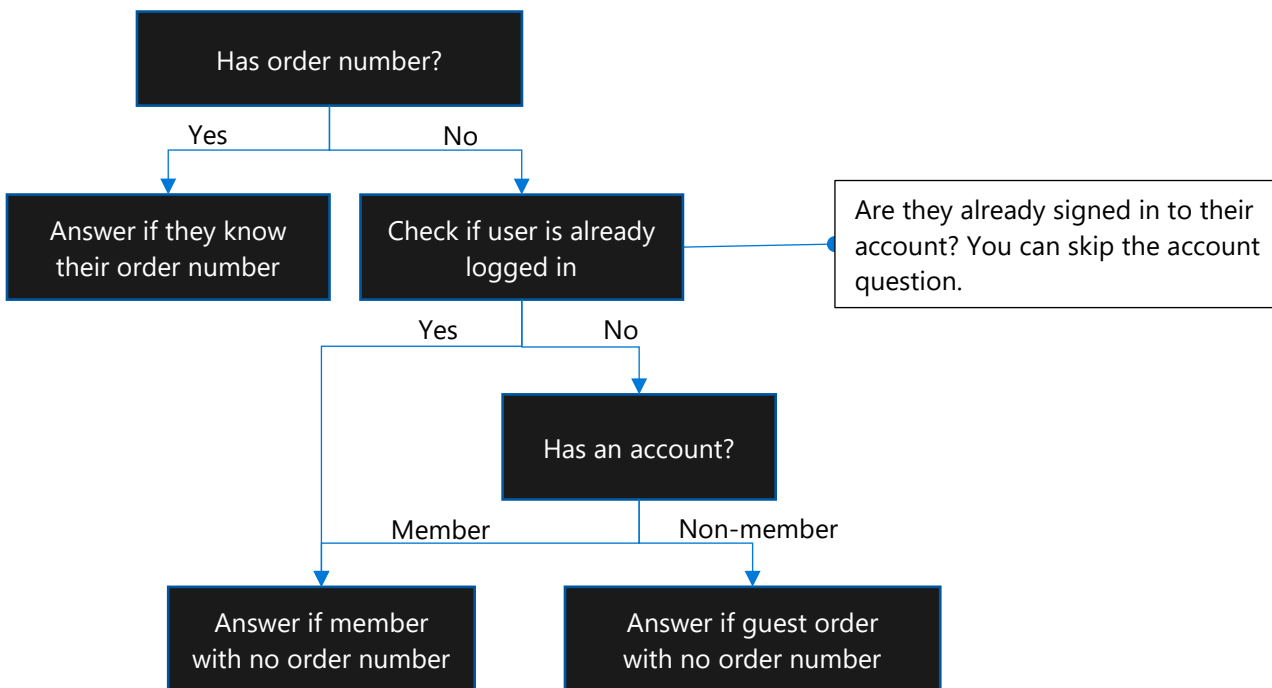

Exercise 4: Identify actions for resolving the request

We tend to think of answers as written instructions, but as you learned in a previous lesson, you can use Power Automate to take action during the chatbot conversation. Now, let's consider what actions are available for your chosen topic.

Use Power Automate to:
- Look up and provide information.
- Take action on behalf of the customer (rather than just giving instructions).
- Keep the user in the chatbot experience instead of sending them to other sites.

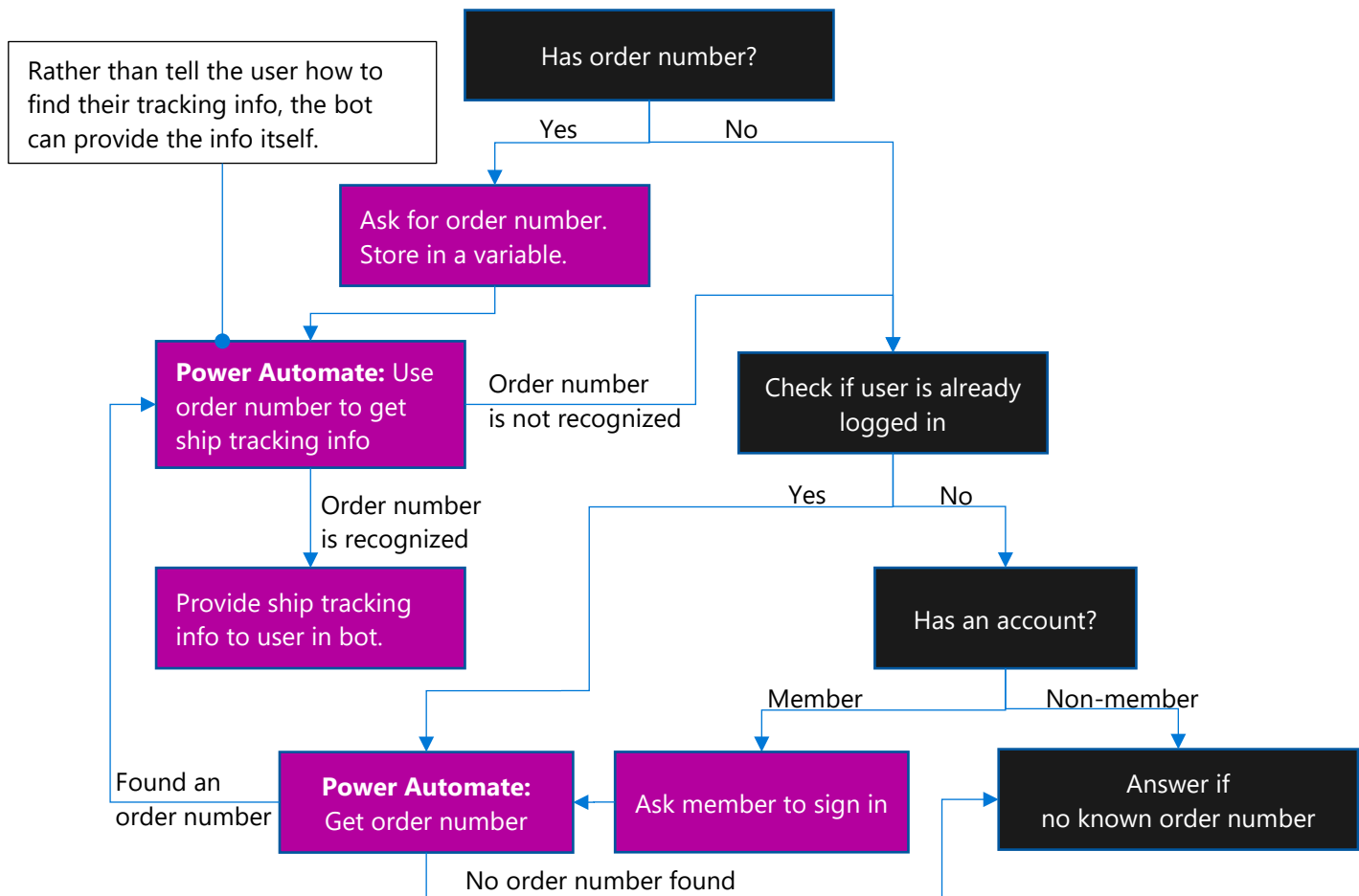## Instructions for exercise

For your dialog tree:
1. Add the actions needed to resolve the issue.

   Get creative! It's OK to provide a few options based on feasibility (what's doable today; what may be possible this year; what may require a magic wand)

Considerations

- Warn the user of any repercussions of an action and confirm with them if needed
- Account for ways an action can fail.

Example

Rather than tell the user how to find their tracking info, the bot can provide the info itself.

Has order number?
- Yes → Ask for order number. Store in a variable.
- No → Check if user is already logged in

Power Automate: Use order number to get ship tracking info
- Order number is not recognized
- Order number is recognized → Provide ship tracking info to user in bot.

Check if user is already logged in
- Yes
- No → Has an account?

Has an account?
- Member → Ask member to sign in
- Non-member → Answer if no known order number

Power Automate: Get order number
- Found an order number
- No order number found → Answer if no known order number

Exercise 5: Build out all paths & add polish

Now you've got the basic structure of your topic. Here are some things to review in your tree:

- Are you asking questions users will know the answers to?
    - Consider "I don't know … how do I find out?" "None of the above"
- Consider failure scenarios
    - If your Power Automate action failed to return what you expected
- Revisit your trigger phrases. Does your topic address all of the triggers? Does it address additional triggers you hadn't thought of previously?
- You'll also want to consider how you end the conversation. Is there anything else your user is likely to want to know/do before this conversation ends?
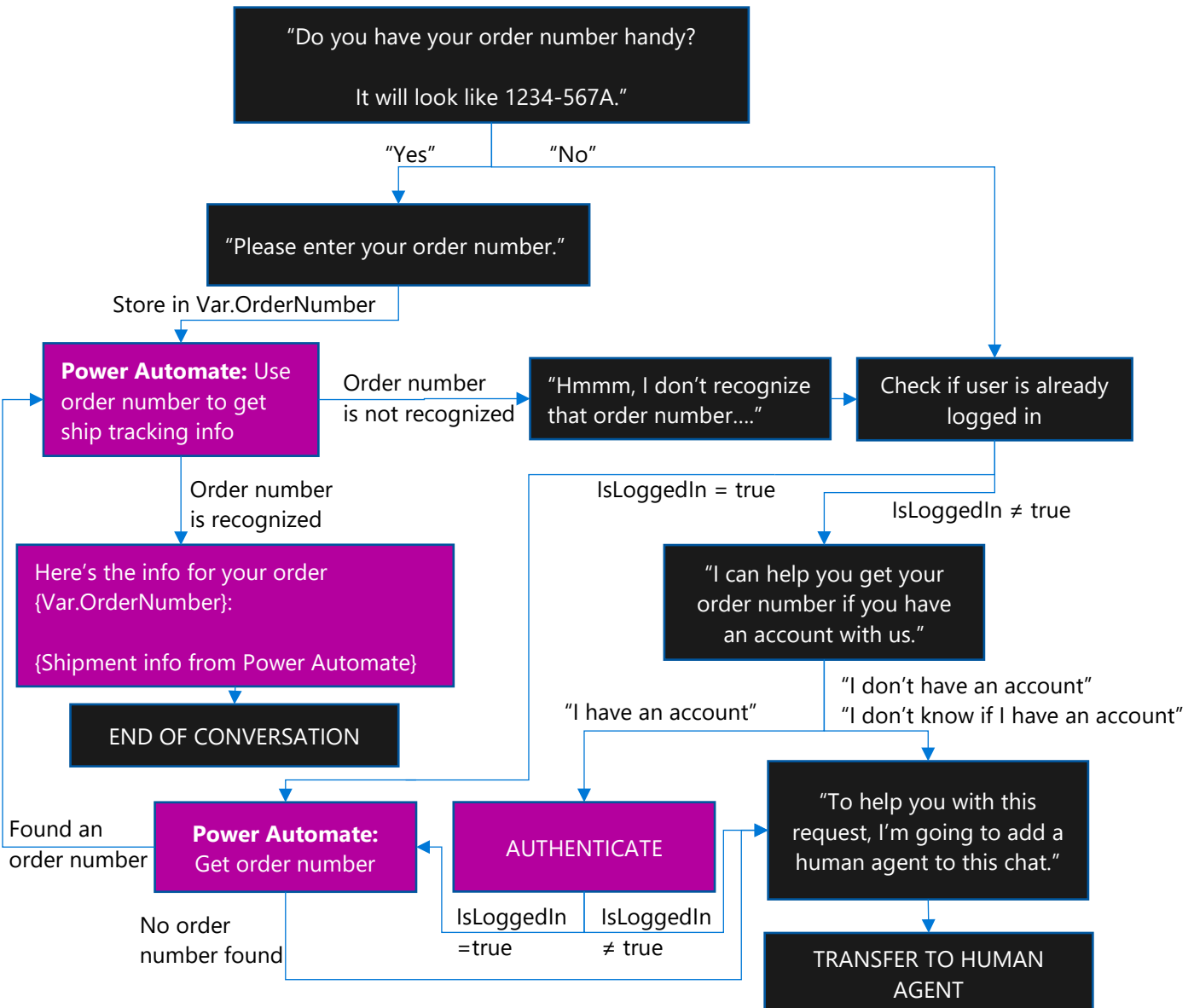
In a later lesson, we'll dive into some best practices for writing great conversational content.

Instructions for exercise

For your dialog tree:
1. Build out the tree. (Be sure to handle your "unhappy paths.")
2. If you're ready to do so, you could start writing the actual text.

Example

```
                    "Do you have your order number handy?

                    It will look like 1234-567A."
```

"Yes"   "No"

"Please enter your order number."

Store in Var.OrderNumber

Power Automate: Use order number to get ship tracking info

Order number is not recognized → "Hmmm, I don't recognize that order number…." → Check if user is already logged in

Order number is recognized

Here's the info for your order {Var.OrderNumber}:

{Shipment info from Power Automate}

END OF CONVERSATION

IsLoggedIn = true

IsLoggedIn ≠ true

"I can help you get your order number if you have an account with us."

"I don't have an account"
"I don't know if I have an account"

"I have an account"

Found an order number

Power Automate: Get order number

AUTHENTICATE

"To help you with this request, I'm going to add a human agent to this chat."

IsLoggedIn =true   IsLoggedIn ≠ true

No order number found

TRANSFER TO HUMAN AGENT

Lab survey

We would appreciate your feedback on Power Virtual Agents and on this hands-on-lab, such as the quality of documentation and the usefulness of the learning experience.
Please use the survey at https://aka.ms/PVAiaDSurvey to share your feedback.
You may provide feedback for each module as you complete it or at the end once you've completed all the modules.
Thank you!

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