

# PROJECT 4

## DIALOGUE DIRECTORS



Photo by [TONY SCHNAGL](#) from Pexels

## Objectives

This is a pair assignment. If you would like to work with a specific person for Project 4, or you would like to be matched with someone in the same time zone, please fill out [this form](#). Pairs will be finalized Tuesday, July 11, 2022 and will be available to view in bCourses [here](#).

### In this assignment, you will:

- Develop Voice User Interface functionality for a client's existing service
- Define your own design goals and target users based on user research
- Describe interaction in context with narrative scenarios
- Develop user personas based on user research
- Develop a voice interface system persona
- Create and test a Wizard-of-Oz Prototype

## Deliverables

*All deadlines are at 11:59pm PST on the listed dates.*

Due Date	Deliverable	Time Estimate <sup>1</sup>
Thu, 7/14	<a href="#">Deliverable 4.1 — Brainstorm</a>	< 1 hour
Fri, 7/15	<a href="#">Deliverable 4.2 — Interview Plan</a>	1 hour
Mon, 7/18	<a href="#">Deliverable 4.3 — Interview Results</a>	2 hours (including interviews)
Tue, 7/19	<a href="#">Deliverable 4.4 — Personas &amp; Narratives</a>	1.5 hours
Wed, 7/20	<a href="#">Deliverable 4.5 — Dialogue Flows</a>	1 hour
Thu, 7/21	<a href="#">Deliverable 4.6 — Usability Experiment Design</a>	45 minutes
Fri, 7/22	<a href="#">Deliverable 4.7 — Wizard of Oz Figma Prototype</a>	1.5 hours
Mon, 7/25	<a href="#">Deliverable 4.8 — Proof of Participation in Usability Testing</a>	40 minutes (including participation)
Wed, 7/27	<a href="#">Final Report</a>	30-50 minutes

## Design Brief

Hello designers! This project is a bit different from the others. You'll notice there are no programming or interactive prototype requirements (beyond a Wizard-of-Oz Figma prototype), and that the bulk of the user interface design work will not be visual... but rather, verbal. The intention of this project is to focus as much as possible on the user *experience* (UX), with less emphasis than usual on a user interface (UI) and frontend code.

Consider the “answering machine robot” interface that you might interact with when you call the bank or the dentist, or when a friend doesn't pick up the phone. Have you ever considered the thought that goes into effectively designing these interactions, and allowing users to interface with services using only (or primarily) their voice? Now, it's your turn!

You have been contacted by the design and development teams from the following organizations:

---

<sup>1</sup> This is an approximate estimate of the expected time for completion of each deliverable. You may spend more or less time as you wish! The estimates are provided in non-DSP terms. If you are a DSP student who would like help estimating the time per deliverable, feel free to reach out to Noah!

- **MyTurn**
  - California's Vaccination and Testing Website, which facilitates for California residents such services as:
    - [finding a walk-in vaccine clinic](#),
    - [making vaccine appointments](#),
    - [getting tested](#), and
    - [getting a Digital COVID-19 Vaccine Record](#).
- **The AC Transit**
  - The Oakland-based public transit agency serving the Bay and offering several web apps and services, including:
    - [ACTRealTime](#), which allows travelers to check on the live status of AC Transit buses,
    - [Maps & Schedules](#), and
    - The [ACT Trip Planner](#).
- **Cal Performances**
  - UC Berkeley's Performing Arts organization. Their website allows users to:
    - Learn about the [upcoming season of performances](#),
    - Purchase [tickets](#) and [season subscriptions](#), and
    - [Make donations](#).
- **Wild Card**
  - An organization or company of your choosing; as long as they offer some kind of public web service(s).

The respective development teams for each of these services are interested in adding some kind of **Voice User Interface (VUI)** functionality to their websites or applications, and are enlisting your expertise as a UI/UX designers and HCI researchers to help them decide:

- **Situations:**

When and why would users want to access their services via a VUI?
- **Tasks:**

What features and functionalities make sense to incorporate into a VUI?
- **Users:**

What users are likely to use their VUI?
- **Design & Prototype:**

And, once we've gathered that information – what might our new Voice User Interface features and interactions actually *look* and *sound* like?

Choose an organization your team is excited to work with, and let's get started!

## 4.1 Brainstorm · due Thurs, 07/14

### Decide on users and context

In this project, you will be designing voice interactions, and a simple interface to support them. Working off of your chosen organization's existing services, brainstorm some possible target *users* and *contexts*. Write down a title (a general phrase that encapsulates both your users and context), and a description of the target users you would be addressing (~50 words), and the context (~50 words). Include traits like age range, occupation, routines, locations, goals or activities. Try to avoid falling into the trap of designing for yourself. Choose a target user you will be able to interview later on. (*Example: if you choose an Adoption Agency's website, you might target elderly Berkeley pet owners with tablets who are looking to add another pet to their family.* (Clarification: In this example, elderly Berkeley pet owners are the target users, and "looking for a new pet" is the target context.)

### Brainstorm

Next, come up with 5-10 ideas that would involve these target users utilizing your Voice User Interface to access some kind of service and/or accomplish a task. Aim for breadth and write down a sentence or sketch that will remind you of each idea. Make sure each idea involves a situation where a user would be able to interface with the service and achieve their goal while using their voice. You may also consider ideas that could involve using a combination of speech and other kinds of input (e.g. button presses).

You can choose to design a desktop, tablet, or mobile format app, or an extension to the existing website/app – or you could think outside the box and design for an alternative form factor: a physical voice-controlled kiosk, for instance.

For now, avoid thinking about what can be implemented! Your prototype will later be scoped based on your idea and feasibility. (*Clarification: It's okay if your ideas are a bit "vague" - you can elaborate on the more promising ones later.*)

### To Submit

- Under the bCourses assignment titled **4.1 Brainstorm**, submit the PDF with the following documentation:
  - Title
  - Description of target users
  - Description of target context
  - 5-10 ideas in sentences and/or sketches

## 4.2 Interview Plan · due Fri, 07/15

You have identified your target users and the context in which they might use your Voice User Interface. When brainstorming ideas about interactions, you probably made some assumptions about their goals, their backgrounds, etc. Interviews will help you clarify or correct some of these assumptions, revealing things like: what makes an interaction effective, what your users expect to find out when they share information, their proficiency with technology, and more.

Design an interview plan to help you understand your target users and how they already use the existing organization's web services (or if they use an alternative / similar service, and why.) Later on, you will be developing personas for your users, so make sure your interview guide will capture the information you need. Think about behavioral variables, and think about how you can capture insight into users' activities, attitudes, aptitudes, motivations, and skills (Source: Cooper et al., "About Face: The Essentials of Interaction Design").

*Please make sure all of your participants are 18+*

### Interview Plan

Fill out the information in clearly marked sections:

#### Who to recruit:

- A 1-2 sentence description of your target user group
- How will you reach your target users?
- How many people will you reach out to?
- Will you perform two 20-min interviews or three 10-min interviews? (You must choose one of these choices)

#### Recruiting Message:

- Include the email or script you will use to recruit. Remember the guidance from [Checkpoint 2.3](#): Include a one-line description of who you are, a brief description of the study and context, and a call-to-action.

#### Interview Guide:

- List 5 to 10 questions that will help you get to the bottom of users' activities, attitudes, aptitudes, motivations, and skills. Make clear note of the 2-3 highest value questions in the interview guide.
  - Focus on how the users interact and interface with public services in the domain you are interested in; For example: *When do they most often access the organization's website or services? What platform are they typically using (mobile, desktop, tablet?) What sort of information do they need to share with*

*the service, and how comfortable are they in sharing that information? What are their present frustrations / pain points with the current system?...*

## To Submit

1. Under the bCourses assignment titled **4.2 Interview Plan**, submit the PDF with the following documentation:
  - a. Who to recruit (addressing all 4 points)
  - b. Recruiting Message
  - c. Interview Guide

## 4.3 Interview Results · due Mon, 07/18

### Conducting your interviews

As a reminder:

- Only interview people that are 18+ years old. If your target audience is younger than that, consider a way you can get at that information indirectly (e.g., asking college-aged students about their childhood experiences, or talking to parents of children that are under 18)
- Do not offer monetary compensation to the participants

With your revised interview guide, it is time to conduct some interviews to learn from your users. As a reminder, you must conduct either two 20-min interviews or three 10-min interviews.

In each study, you and your partner(s) should each take turns being Partner A and Partner B. Make sure to switch roles with your group members.

**Partner A (Facilitator):** You will facilitate the study, talking to the participant, asking them your questions.

**Partner B (Note-Taker):** will take notes on what the participant does and says. Even if you are recording the participant, the note taker should make sure to include notes of:

- An approximate transcript of what the participant says
- *(Optional)* A picture or screenshot of any relevant artifacts that the participant creates (but do not capture their faces)

*IMPORTANT: Respect the participant's privacy. Take notes without personally identifying information. Scrub out any names, faces, or other identifying information about the participant in any deliverables.*

### Synthesize your findings

Immediately after each interview, review your notes with your partner and reflect on the interesting and unexpected things you heard. What ideas does it give you for your design? What might help that user in your context and for your tasks?

Synthesize your findings to make two “findings” that you can share.

# To Submit

1. Under the bCourses assignment titled 4.3 Interviews, submit the PDF with the following documentation:
  - a. 1-2 sentence description of each user you recruited (no names!)
  - b. Rough transcript for each study (they can be a bit messy)
  - c. Any additional documentation from the interviews (photos, screenshots, etc.) (no identifying information!)
  - d. 2 findings from your synthesis of all interviews (with descriptive titles, and no identifiable information from the participants)
    - i. You can include images or links to videos if they are part of the finding
  - e. Remember: No identifying information from your participants should be submitted
2. On the Slack channel **#p4-3-findings**, send one message with your two findings. Remember to include your group member(s) username(s).

*(If you don't see a channel on Slack, hover over the word 'Channels' in the left toolbar, then click the + sign on the right to add a channel to your list.)*



## 4.4 Personas & Narratives · due Tue, 07/19

### User Persona

Now that you have interviewed two or three users, you have enough information to create a user persona.

Synthesize your notes into a textual description (100 - 500 words) of your persona, as discussed [in lecture](#) and [in section](#). This persona should represent one distinct subgroup of your users. You should come up with a name for your persona (not the name of a real interviewee). Provide an image for the persona (use stock photos, sketches, etc., NOT a picture of a real user), and document their experience, life, and end goals (life goals, not necessarily VUI-specific), to the degree that you can complete them from the interviews.

This persona does not need to reflect all of the participants you interviewed, but it should capture characteristics from at least one of your participants. You will be focusing on this persona for future deliverables.

### System Persona

In VUI design, the *system itself* often also has a persona.

Guiding the system design with a detailed persona that imagines the ‘voice’ of the system as a conversational partner encourages users to better identify with the system they are speaking to, and to interact more directly and intuitively – with a well-designed system persona, the interaction will feel less like issuing a series of voice commands and more like a conversation. [\[Potentially Useful Source\]](#)

Create a textual description (100 - 500 words) of your system persona. You may use a bulleted list format if you find that more intuitive. Come up with a name for the system persona, then define the qualities evoked by its “voice” – is it male, female, or genderless? Do they speak with a tone of casual friendliness, precise professionalism, or something else? Feel free to get creative.

Consider what traits characterize system personas you have interacted with in the past (e.g. Siri, Alexa, [CleverBot](#), [Akinator](#)) – and also consider the potential implications of perpetuating voice assistant “trends.” (From Lecture 4: [Should AI assistants be female, male or genderless? by Karolina Kolodziej](#))

## Narrative Scenarios

Now that we have characterized our human and our computer, it's time to consider their interaction. Recall your brainstormed sketches or sentences from [Checkpoint 4.1](#).

Pick 3 of your favorite brainstormed ideas for target use-cases. This time, you will create 3 text-only narrative scenarios that broadly illustrate how these interactions might play out.

Each scenario should:

- Demonstrate one entire use-case of a VUI application (including your user persona, their phones or other system, and the system persona)
- Describe an entirely different use-case and situation from the other scenarios
- Include how your target users would interact with the system
- Be between ~100-150 words

Below is an example of a narrative scenario, including the approximate length we expect from each scenario.

### Sample Narrative Scenario - Adoption Center (106 Words)

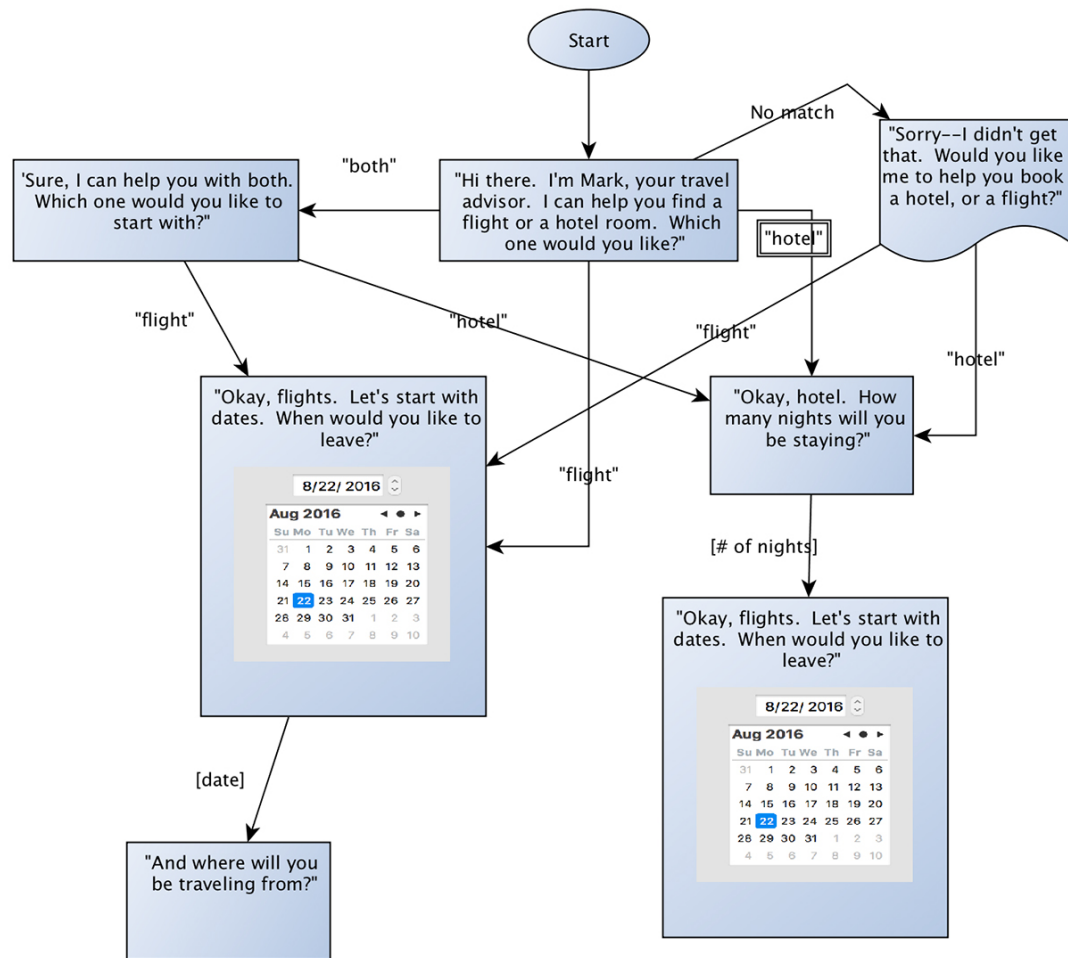
*Greta* already has one cat, and is ready to add a new dog to her family. She decides to see what animals are available for adoption nearby. She uses her iPad to navigate to the website for her local animal shelter, [Berkeley Humane](#). As an older user with accessibility issues, she is excited to discover the option to utilize their voice assistant system, *Fido*. Through a conversation with *Fido*, *Greta* is able to retrieve a list of small-medium sized older dogs that are friendly to cats. She saves this list and plans to take it with her when she visits the local shelter later that day.

## To Submit

1. Under the bCourses assignment titled **4.4 Personas & Narrative Scenarios**, submit the PDF with your user persona description, system persona description, and 3 narrative scenarios.

## 4.5 Dialogue Flow - due Wed, 07/20

In this part of the assignment, you will prototype one feature or use of your VUI system by fully modeling the conversation as a Dialogue Flow Chart. **Choose one of your three Narrative Scenarios** to prototype.



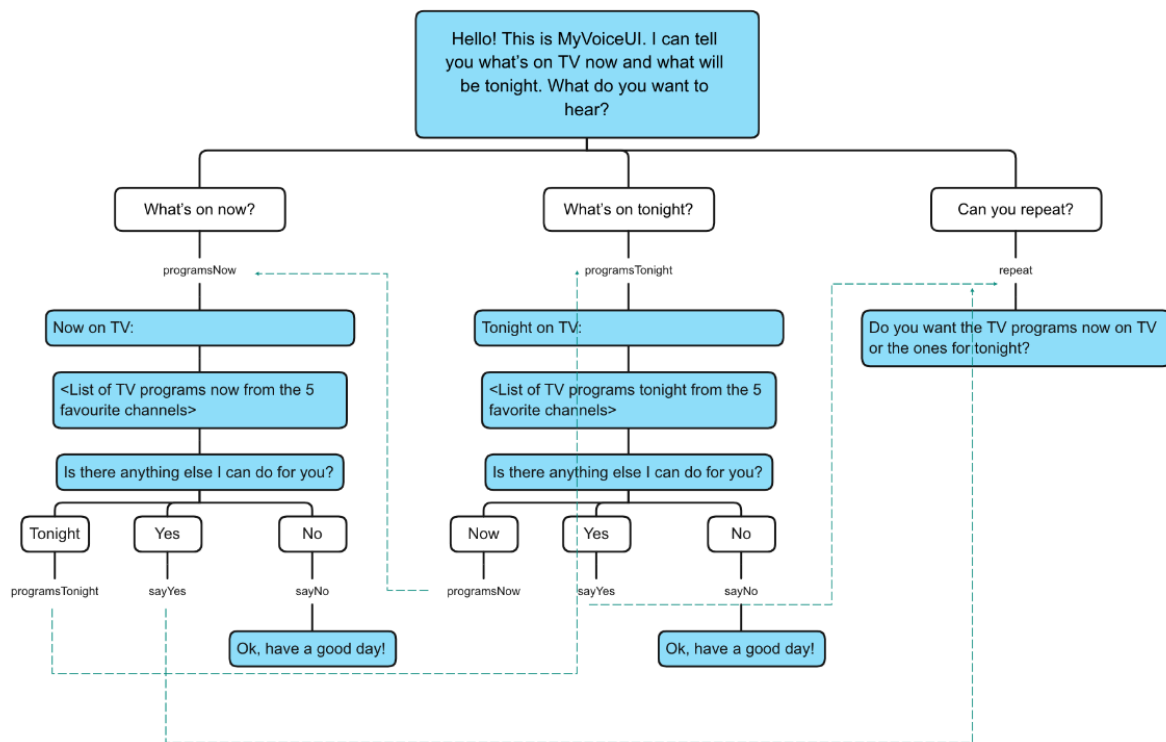
From [Basic principles for designing voice user interfaces – O'Reilly](#)

To build your Dialogue Flow, here are some components that will be helpful to consider.

<b>Intent</b>	What is the user actually trying to do when they “activate” this interaction?	<p>Examples:</p> <ul style="list-style-type: none"> <li>• Set an alarm for 9AM</li> <li>• Retrieve a list of dogs locally available for adoption</li> </ul>
<b>Utterances</b>	What does the user actually “say”? How many different ways might a user request something with the same intent? You don’t need to exhaustively account for every possibility, but the more variations you consider, the more responsive your assistant will seem.	<p>Examples:</p> <ul style="list-style-type: none"> <li>• “Wake me up at 9AM” / “Set a 9AM alarm” / “Can you set an alarm for 9 in the morning?”</li> <li>• “I want to find a dog to adopt” / “What dogs are available for adoption?”</li> </ul>
<b>User Variables</b> or <b>“Slots”</b>	What sort of data variables will you derive from the user’s utterances? Which variables are necessary to collect for the interaction to progress, and which are optional?	<p>Examples:</p> <ul style="list-style-type: none"> <li>• In, “Set an alarm for 9AM” - the <b>time</b> is a mandatory variable. If the user does not provide this variable to begin with, we must ask for it to complete the interaction:  “Set an alarm.”  “Sure, what time?”</li> <li>• In “I want to adopt a cat-friendly dog” - <b>cat-friendly</b> is an optional variable. It is not necessary for the interaction (retrieving a list of available dogs) but we might want to alter our response if it is included. (e.g. retrieving a list of only cat-friendly dogs.)</li> </ul>
<b>Response Handling and Fidelity</b>	How might you handle receiving too much data from the user at once, or not receiving enough data? What if your assistant has multiple results to provide the user, or no results at all? Are there cases where you should repeat a prompt, return to an earlier “checkpoint”, or even restart the entire interaction altogether? When should you direct a user to look at a screen, if at all?	<p>Examples:</p> <ul style="list-style-type: none"> <li>• “Sorry, I didn’t get that. Can you repeat what time you want your alarm to be set?”</li> <li>• “Unfortunately, there are no dogs that match your criteria available. Would you like a list of all available dogs instead?”</li> <li>• Verbally listing out all available dogs vs. displaying the list on-screen or sending to the user’s email address</li> </ul>

As you can imagine, there are many possibilities to account for, and design choices to make. There may be choices that you might feel particularly uncertain about – remember these, as you can leverage these questions when you experiment with your prototype in the future Usability Experiment deliverables.

You can create your Dialogue Flow Chart in a software of your choice, ex: [Figma](#), [LucidChart](#), or [Google Drawings](#). Start with the initial **trigger** (e.g. what the user would say or select on-screen to begin the interaction) and use branches to show the different ways the user and system's conversation might take them to the interaction's conclusion.



From [Types of design tools for voice user interfaces and how to use them](#) | by Jesús Martín | UX Collective

## To Submit

1. Under the bCourses assignment titled **4.5 Dialogue Flows**, submit a PDF with image(s) or link(s) to your prototyped conversation in Dialogue Flow Chart format.

## 4.6 Experiment Design · due Thu, 07/21

Through the process of brainstorming, interviewing, creating personas and scenarios, and modeling a dialogue flow, you have arrived at a prototyped conversation between your user and system. Later in this project, you will use these dialogue flows to perform a controlled usability study of this interaction, with one of your group members acting as the system, and the other as an observer. You will create and compare **two variants** of your dialogue flow chart in a controlled experiment that should take less than 10 minutes per participant.

### Experiment Design

For this checkpoint, you will design your experiment. You may find it helpful to refer to [Lecture 7](#) about experimental design.

Fill out the following table by responding to each prompt in the second column. Your responses should replace the “[...]”s in the second column.

<b>Interface Use Description</b>	Briefly describe the purpose of the Voice User Interface feature that you prototyped (1-2 sentences) [...]
<b>Possible Key Questions</b>	What aspects of your VUI do you have questions about? What might you want to test or explore? List at least 3 possibilities. <i>Ex: “Is it better to list out all of the user’s search results, or to display it on the screen instead?”</i> 1. [...] 2. [...] 3. [...]
<b>Chosen Key Question</b>	Identify one question from your list above as your final choice. Question #[...]
<b>Hypothesis</b>	What is your hypothesis for the result of your chosen key question? (1-2 sentences) [...]
<b>Independent Variables</b>	What are the independent variables of your experiment? How can you implement this as a variant of your original Dialogue Flow prototype? <i>Ex: the method by which multiple search results are presented to the user.</i> (2-3 sentences) [...]

<b>Dependent Variables</b>	What are the dependent variables of your experiment? (That is, what do you expect to change in response to the independent variable(s)?) (1-2 sentences) [...]
<b>Instrumentation</b>	What quantitative data, if any, do you need to collect to measure the dependent variable? How will you collect this data? <i>Ex: timing how fast a user responds, or counting how many questions the user has to answer to achieve their result</i> (1-2 sentences) [...]
<b>Survey Questions</b>	What qualitative data do you need to collect? What questions will you ask to collect this data? These questions can be in the form of Likert scale questions or interview questions that you ask face-to-face. [...]
<b>Control &amp; Random Variables</b>	What are the control & random variables? Why are you including these in particular (i.e. how does this help improve validity of your experiment)? (3-4 sentences) [...]
<b>Within subjects or between subjects</b>	Will you perform a within subjects or between subjects experiment? Why? (2-3 sentences) [...]
<b>Tasks</b>	What task or series of tasks will your experiment participant be asked to attempt in order to answer your key question? Remember: the tasks must be completable in 10 minutes or less. (3-4 sentences) [...]
<b>Task Script</b>	How will you describe the task(s) to your participant? Draft a brief portion of your script below. [...]

## To Submit

1. Under the bCourses assignment titled **4.6 Experiment Design**, submit a PDF with the above table filled in.

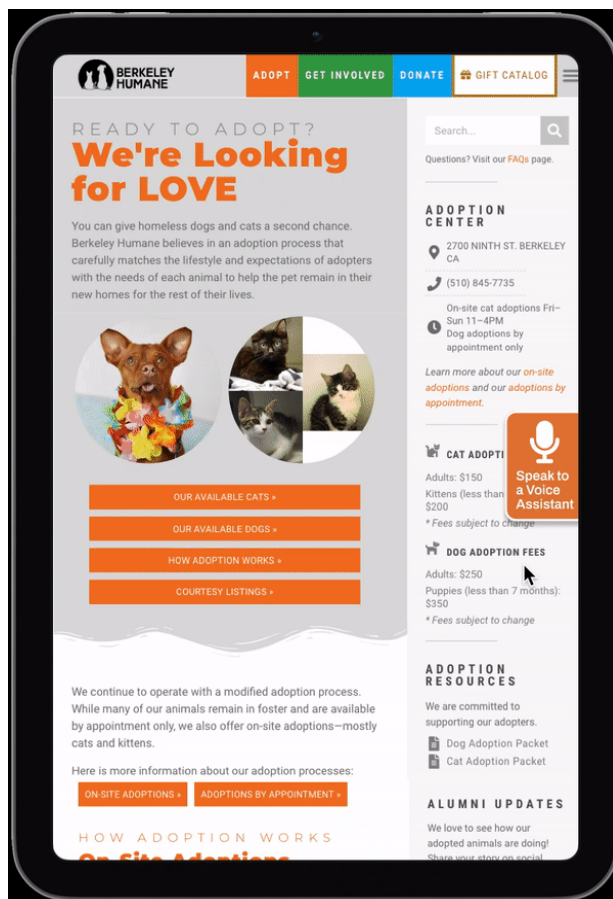
## 4.7 Figma Prototype - due Fri, 7/22

Your Dialogue Flow Chart will serve as a prototype of your VUI's functionality – but what will users see on their devices while your Voice User Interface system is in use? In this checkpoint, you will use Figma to design any visual materials you might need to facilitate your Wizard-of-Oz Usability Test. **You will be making a “control” and a “treatment” version of your prototypes to model your independent variables from 4.6.**

Even if you envision your system's interactions as entirely audio & voice controlled, there should be some way for users to discover and initiate a conversation with your system. Having some visual prototype materials will be of great assistance for your usability test.

*You do not need to exhaustively design and layout every single possible screen – but a more detailed visual prototype will allow your test-users to realistically imagine and contextualize their interactions with your VUI.*

As with Project 1 and 2, you might want to create sketches before moving straight to prototyping in Figma – but this is not required. How you conduct your creative process at this point is up to you!





## Prepare for your Usability Test

Prepare your visual and written prototype materials so that you can smoothly conduct your Usability Test Experiment using the Wizard-of-Oz technique – Ideally, one of you will play the voice of the system, while the other partner(s) can help facilitate the test and show the participant the appropriate visual materials as needed. If you haven't yet created 2 distinct variants of your Dialogue Flow Chart, now would be the time.

We strongly recommend that you practice, ideally with your partner(s). Decide who will play what role, then **practice with both versions of your Dialogue Flow** and converse with your “user” exactly as prototyped. Are there any changes you might need to make, interactions you'd like to prototype, or details you'd like to add, to ensure your usability tests run smoothly? You might find [implementing keyboard-triggered transitions in Figma](#) helpful for quickly and efficiently switching between different screens.

## To Submit

1. Under the bCourses assignment titled **4.7 Figma Prototype**, submit a PDF with the following:
  - a. A link to your Figma file with appropriate viewing permissions.
  - b. Images and/or links to your **two Dialogue Flow Chart variants**, labeled Control and Treatment, with some indication (either a brief 1-2 sentence description, or some kind of visual indication on the charts themselves) of how they are different.
2. On the Slack channel **#p4-7-figma**, send one message with:
  - a. Your Group # and the username(s) of your partner(s).
  - b. A link to your Figma prototype

## 4.8 Participate in Usability Tests (Individual) · due ~~Mon, 07/25~~ **Friday, 07/29**

PSA: Do *not* wait to sign up for a usability study, or you will be too late to actually participate in one— plan ahead!

Each individual student must participate in 2 usability tests for different teams. Fill in your name in 2 participation slots on [this spreadsheet](#).

If you still need participants, please indicate this + update your availability on the spreadsheet.

If you participate in 2 usability tests before Friday, 07/29 @11:59PM, you'll receive full credit.

If you participate in  $\geq 3$  usability tests before Friday, 07/29 @11:59PM, we will give you 1 *extra participation credit*.

**Once people have signed up for your study, please reach out to them and coordinate a time with them. It is your responsibility to coordinate with your participants!**

You should try to hold your own system's usability test as a team (find your group name/number and indicate your availability ASAP), but you will participate in another group's usability test as an individual.

You can choose to host your study and participate in other studies during studio time on Monday, 07/25. Or, you can choose to participate in remote studies and/or host your study remotely over Zoom - in which case you will need to coordinate with other students' availability.

Once you sign up to participate, you should expect the team conducting usability tests to reach out and coordinate with you. You must participate in the usability tests you sign up for.

# To Submit

You will be graded individually for this assignment. Your group can submit all screenshots together in one PDF, or you can each submit separately (it may look like a “resubmission” but we’ll be able to see all of your individual submissions, so don’t worry about “overwriting” your partner(s))

To that end, please don’t forget to **clearly indicate with your full name which screenshots are yours!**

1. Under the bCourses assignment titled **4.8 Proof of Participation in Usability Tests**, submit a PDF with **your name** and **proof** that you participated in 2 usability tests. This can be screenshots of Zoom meetings, photos from Studio, or screenshots of written communication about your participation (e.g. a thank you message from the other students you completed a study with). You should have a total of 2 screenshots in your PDF, one for each usability test.

# Final Report · due Wed, 07/27

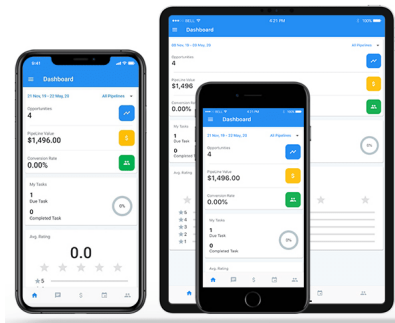
You're almost done with Project 4! In this project, you did a focused brainstorm around the topic of designing a Voice User Interface to improve accessibility to an existing service, conducted interviews to help refine your ideas, built target user and system personas, crafted narrative scenarios to illustrate your idea, prototyped your interactions with a Dialogue Flow Chart, and conducted an experiment to test a feature of your app! We hope you learned a lot in the process.

## PDF Report

To represent your design process, please assemble a PDF report with the following information, using clear headings for section/subsections. Please present your work as if you were submitting it to your client (e.g. the ACTransit, or the City of Berkeley) – we're looking for creativity and professionalism.

Note: most of this can come directly from your prior checkpoints, but if your idea changed at all, please include the updated information in your report.

- Cover Page (you don't need to have clear headings for each section on the cover page.)
  - Title
  - Project 4 Group Number (you can find it on bCourses)
  - Names of team members
  - “Teaser” image or representative image of your app
    - Tip: if possible take this picture in real-life in-context use, or edit an image so it shows your app experience in your targeted context.
    - For example, the picture on the left is an excellent example. The picture on the right is also good.



- Description of target users
- Description of target context
- Interviews

- Recruiting Message
- Interview Guide (this should be the final version that you ended up using)
- Table of Interview Participants (example format below)

#	Brief Description of Participant	Interview Length
1	...	20 min
2	...	20 min

- Synthesized Findings (you should have at least 2)
- User Persona
- System Persona
- Narrative Scenarios
- Figma Prototype
  - Brief description of interface and interactions (~3 sentences)
  - Labeled screenshots (of all important screens)
  - A link to your Figma file with appropriate viewing permissions.
- Dialogue Flow Charts
  - Images of your two Dialogue Flow Chart variants, labeled Control and Treatment, with some indication (either a brief 1-2 sentence description, or some kind of visual indication on the charts themselves) of how they are different.
- Experiment
  - Experimental Design
    - Key Question
    - Hypothesis
    - Independent Variable
      - Description of conditions
    - Dependent Variables
      - How you measured the dependent variables (Instrumentation and/or Survey Questions)
    - Within-subjects or Between-subjects design
    - Tasks that a user has to perform in a usability study
  - Participants and Conditions (The names of the participants of your usability test, along with an indication of what condition(s)/variable(s) they were exposed to during the usability test.)\*
  - Results (≥ 1 paragraph)\*
  - Reflection on Hypothesis after conclusion of Usability Test (≥ 1 paragraph)\*

\* These parts are new (not copied from previous deliverables)

# To Submit

1. Under the bCourses assignment titled **Project 4 · Dialogue Directors**, submit your final report PDF.