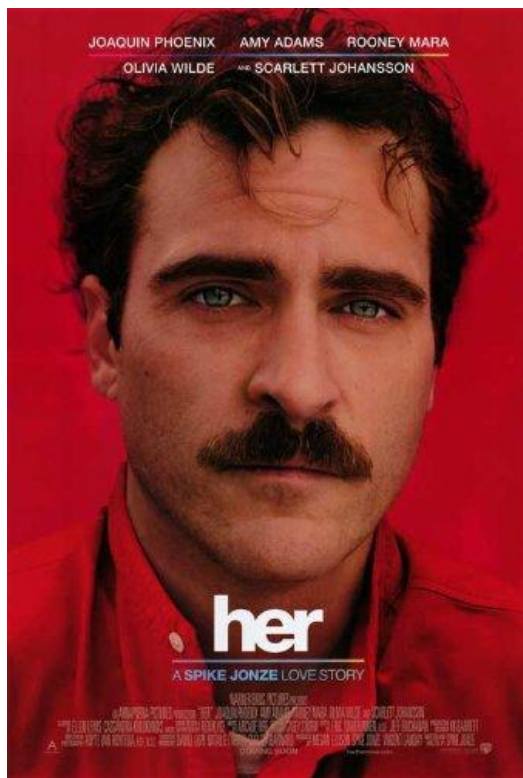




Black Panther | 2018



Her | 2013



Iron Man | '08, '10, '13



Griot, Black Panther | 2018



Samantha, Her | 2013



Jarvis, Iron Man | '08, '10, '13



Apple's Siri



Amazon Alexa



Google Assistant



Samsung's Bixby

VUI Module, HCDD 340, Fall 2022

Designing Conversational Agent for Voice User Interfaces (VUI)

Raju Maharjan
rpm6205@psu.edu
www.rajumarharjan.com



Outline

Class 1

1. Introduction to conversational agents
2. Conversational Design Process and guidelines
3. Prototype a conversational agent
4. Evaluating a speech interface design

Class 2

1. Design, prototype, and evaluate a conversational agent to support cognitive restructuring

What are Conversational Agents (CAs)?

Software application that allows users to interact with technology in a natural human-to-human-like conversation by means of speech.

How Conversational Agents Work?



How Conversational Agents Work?



Anatomy of a Voice Command

“Alexa, Tell Papa John’s, I want to order a large pepperoni pizza.”

Wake Word Launch Name of the Skill Utterance

Intent

The objective of the voice interaction

Order Pizza

Utterance

How the user phrases a command

I want a pizza
I want to order a pizza
I want to order a large pizza

Entities or Slots

The required or optional variables to fulfill the intent

Size (Large)
Type (Pepperoni)

“Alexa, ask Fitbit how many steps I've taken this week?”

Intent: get step count

*“Alexa, ask Fitbit how many **steps** I've taken **this week**?”*

Utterance, **Entities**

“Alexa, set timer for 15 minutes.”

Intent: set timer

“*Alexa, set timer for 15 minutes.*”

Utterance, Entity

Conversational Design Process

1. Write out a script (Start with role playing & write it the way you'd say it.)
2. Develop a conversational flow
3. Prototype (e.g., Voiceflow)
4. Evaluate (e.g., SASSI questionnaire)

Conversational Design Process

1. Write out a script

Conversational Design Guidelines

- Use confirmations and feedback
- Keep Track of Context
- Handle errors gracefully
- Use conversation markers
- Support Repeat, Help and other universal commands
- Support disambiguation
- Interactions should be time-efficient
- Present simple set of options
- Avoid repetitive phrases

Use Confirmations and Feedback

DO

Agent: How are you feeling today, Cathy?

Cathy: Well, pretty good today, I guess.

Agent: **Thank you for sharing that with me.** How did you sleep last night?

Cathy: Not so great.

Agent: **Sorry to hear that.**

DON'T

Agent: How are you feeling today, Cathy?

Cathy: Well, pretty good today, I guess.

Agent: **How did you sleep last night?**

Cathy: Not so great.

Agent: **Thank you for answering the questions. Bye!**

Keeping Track of Context

DO

User: Ok Google. Who was the 16th president of the United States?

Agent: Abraham Lincoln was the 16th president of the United States.

User: How old was he when he died?

Agent: Abraham Lincoln died at the age of 56.

User: Where was he born?

Agent: Hodgenville, KY

User: What is the best Mexican restaurant there?

Agent: Mexicali is the best rated Mexican restaurant in Hodgenville, KY

DON'T

User: Ok Google. Who was the 16th president of the United States?

Agent: Abraham Lincoln was the 16th president of the United States.

User: How old was he when he died?

Agent: Abraham Lincoln died at the age of 56.

User: Where was he born?

Agent: Hodgenville, KY

User: What is the best Mexican restaurant there?

Agent: Lupitas Mexican Restaurant is the best rated Mexican restaurant near you

Handle Errors Gracefully

DO

Alexa: Please tell me your flight number, and I'll look up the reservation.

User: Uhh...576782

Alexa: I'm sorry, I don't recognize that. **Your flight number is three digits long and follows the letters UA.**

User: Oh, that! It's 375.

Alexa: Thank you. Getting your reservation...

DON'T

Alexa: Please tell me your flight number, and I'll look up the reservation.

User: Uhh...576782

Alexa: I'm sorry, I don't recognize that. **Please tell me your flight number, and I'll look up the reservation.**

Use Conversation Markers

DO

Alexa: I'll be asking you a few questions about your health.

First, how many hours of sleep did you get last night?

User: About seven.

Alexa: **Good job**. and how many servings of fruits and vegetables did you eat yesterday?

User: Maybe four

Alexa: **Got it**. last question—were you able to take your medication last night?

User: Yes

Alexa: **All right**. That's it for now. I'll talk to you again tomorrow. Goodbye.

DON'T

Alexa: How many hours of sleep did you get last night?

User: About seven.

Alexa: How many servings of fruits and vegetables did you eat yesterday?

User: Maybe four.

Alexa: Did you take your medication last night?

User: Yes

Alexa: Goodbye.

Support Repeat, Help and other Universal Commands

DO

Agent: Today's trivia question is: Which of these artists holds the records for most Grammys won in a lifetime: a. Michael Jackson; b. Alison Krauss; or c. Georg Solti?

User: Uh, could you repeat that?

Agent: **Sure! Today's trivia question is: Which of these artists holds the records for most Grammys won in a lifetime: a. Michael Jackson; b. Alison Krauss; or c. Georg Solti?**

DON'T

Agent: Today's trivia question is: Which of these artists holds the records for most Grammys won in a lifetime: a. Michael Jackson; b. Alison Krauss; or c. Georg Solti?

User: Uh, could you repeat that?

Agent: **Sorry, I didn't get that.**

Support Disambiguation

DO

User: Call Cindy, please.

Agent: OK. **Cell phone, or home phone?**

User: Cell phone.

Agent: Calling Cindy, cell phone...

DON'T

User: Call Cindy, please.

Agent: **OK. Calling Cindy, home phone.**

User: No no no no.

Interactions Should be Time-Efficient

DO

Agent: *What is your complete address?*

User: Pennsylvania ave, Washington, DC 20009.

Agent: *I heard you say 1600 Pennsylvania Ave . Is that correct?*

User: Yes

DON'T

Agent: What is your *street address?*

User: 1600 Pennsylvania avenue

Agent: What *city?*

User: Washington

Agent: What *state?*

User: DC

Agent: And what is your *zip code?*

User: 20009

Present Simple Set of Options

DO

User: Alexa, ask My Trip Planner how many items are left on my packing list.

My Trip Planner: You have 8 items left to pack: **Flip flops, bathing suit, beach towel**. Do you want hear more?

DON'T

User: Alexa, ask My Trip Planner how many items are left on my packing list?"

My Trip Planner: You still need to pack flip flops, bathing suit, beach towel, sunscreen, sunglasses...

User: Alexa, stop.

Avoid Repetitive Phrases

First Time

User: "Alexa, tell My Tutor to play today's lesson."

Agent: "Okay, playing today's lesson."

Next time

User: "Alexa, tell My Tutor to play today's lesson."

Agent (Variation 1): "This is going to be fun! Enjoy today's lesson."

Agent (Variation 2): "Welcome back! Today's lesson is great!"

Agent (Variation 3): "Playing today's lesson now. Have fun!"

Conversational Design Guidelines

Learn More:

<https://developers.google.com/assistant/conversation-design/welcome>

<https://developer.amazon.com/en-US/docs/alexa/alexa-design/get-started.html>

Designing Voice User Interfaces. Cathy Pearl

Conversational UX Design. Robert J. Moore, Raphael Arar

WHO-5 questionnaire

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box with the number 3 in the upper right corner.

Over the last two weeks	All the time	Most of the time	More than Half of the time	Less than half of the time	Some of the time	At no time
I have felt fearful and good spirits	5	4	3	2	1	0
I have felt calm and relaxed	5	4	3	2	1	0
I have felt active and vigorous	5	4	3	2	1	0
I woke up feeling fresh and rested	5	4	3	2	1	0
My daily life has been filled with things that interest me	5	4	3	2	1	0

The raw score is calculated by totaling the figures of the five answers. The raw score ranges from 0 to 25, 0 representing worst possible and 25 representing best possible quality of life. To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.

Script Example: WHO-5 questionnaire

Turn	Sample dialogs
User	Alexa, assess my wellbeing.
WHO-5	Hi there, welcome to the WHO-5 questionnaire. I am here to assess your wellbeing. Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.
WHO-5	Over the last 2 weeks, <i>how often have you felt cheerful and in good spirits?</i>
User	Four
WHO-5	Good to hear that. And, <i>how often have you felt calm and relaxed?</i>
User	Five
WHO-5	Awesome. <i>How often have you felt active and vigorous?</i>
User	Five
WHO-5	Fantastic. <i>How often have you woken up feeling fresh and rested?</i>
User	Four
WHO-5	Finally, tell me <i>How often have you felt that your daily life has been filled with things that interest you?</i>
User	Five
WHO-5	Awesome. Your answers indicate that you have a good quality of life. Keep it up!

Conversational Design Process

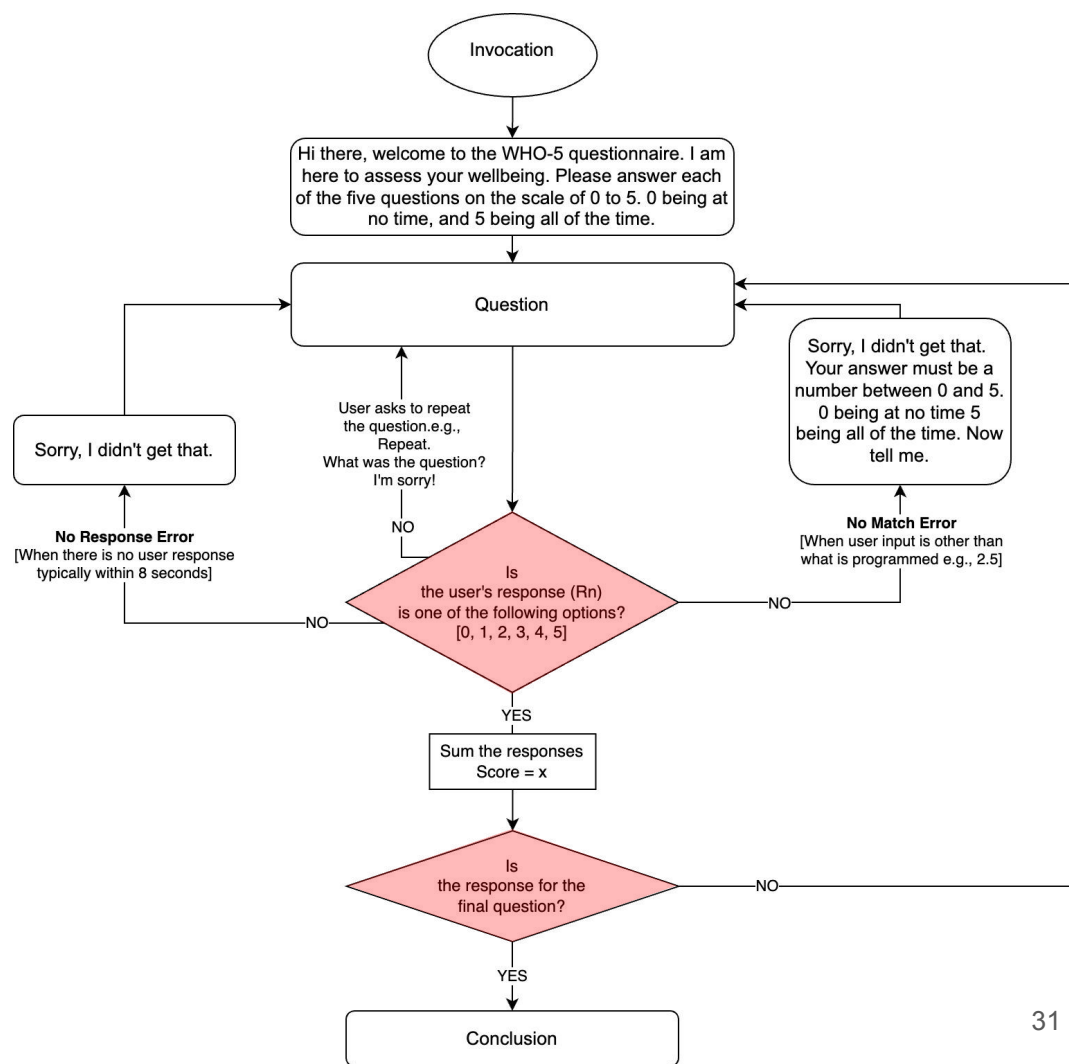
2. Develop a Conversational Flow

- Outline alternate paths and decision trees
- Outline behind-the-scenes decisions the system logic will have to make
- Outline how the agent will help the user (error handling)

Conversational Flow

Turn	Flow	Sample dialogs
User	Invocation	Alexa, assess my wellbeing.
WHO-5	Preamble	Hi there, welcome to the WHO-5 questionnaire. I am here to assess your wellbeing. Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.
WHO-5	Q1	Over the last 2 weeks, <i>how often have you felt cheerful and in good spirits?</i>
User	R1	Four
WHO-5	Q2	Good to hear that. And <i>how often have you felt calm and relaxed?</i>
User	R2	Five
WHO-5	Q3	Awesome. <i>How often have you felt active and vigorous?</i>
User	R3	Five
WHO-5	Q4	Fantastic. <i>How often have you woken up feeling fresh and rested?</i>
User	R4	Four
WHO-5	Q5	Finally, tell me <i>How often have you felt that your daily life has been filled with things that interest you?</i>
User	R5	Five
WHO-5	Conclusion	Awesome. <i>Thank you for answering the questions. You seem to have a good quality of life. Keep it up!</i>

Conversational flow (WHO-5 questionnaire)



Conversational Design Process

3. Prototype

- Go to: <https://creator.voiceflow.com/>
- Create an account or log in using your Google or Facebook account
- How to design using voiceflow?
<https://voiceflow.zendesk.com/hc/en-us/categories/6139046951181-Designing>



The screenshot displays the Voiceflow creator interface in a web browser. The browser's address bar shows the URL: `creator.voiceflow.com/project/6383cf511cc15ed8bb0198b1/domain/clazuf0h84p3n07ok9b566odq/canvas/6383cf511cc15ed8bb0198b2`. The interface includes a top navigation bar with the Voiceflow logo, a search bar, and buttons for 'Share' and a play icon. On the left, a sidebar menu is open, listing various project management options. The main workspace features a workflow diagram on a grid background, starting with a green 'Start' trigger block connected to a 'Welcome' message block. The message block contains the text: 'This is the first message in your assistant'. A vertical toolbar on the left side of the workspace contains icons for 'Talk', 'Listen', and 'Logic'. The Voiceflow logo is also present in the bottom right corner of the workspace.

Back to dashboard

Search assistant

Version history

Project settings

Invite collaborators

Duplicate project

Copy clone link

Hide/Show UI

See shortcuts

Get desktop app

Talk

Listen

Logic

Start

Welcome

This is the first message in your assistant

Browser window showing the Voiceflow dashboard. The address bar displays `creator.voiceflow.com/workspace/dok75D4nB1`. The page header includes the Voiceflow logo, "Raju Talks" with a "FREE" badge, an "UPGRADE WORKSPACE" button, and user information for "Raju Maharjan". A search bar labeled "Search Projects" is present. The "Default List" section contains one project: "WH05 Voice Assistant" with a "W" icon and a "Create Project" button. A large empty workspace area is visible on the right, and a blue Voiceflow logo is in the bottom right corner.

Voicflow | Dashboard

creator.voicflow.com/workspace/dok75D4nB1

Raju Talks FREE

Search Projects

Default List

WHOS Voice Assistant

Create Project

Create Assistant

Channel
Voice Assistant

NLU
Voiceflow (default)

Import Voicflow NLU model · CSV files supported

Language
English (en-US)

Cancel Create

The screenshot shows the Voiceflow creator interface in a browser window. The address bar displays the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b`. The interface includes a top navigation bar with the Voiceflow logo, a search bar, and buttons for 'Share' and a play icon. On the left, there is a sidebar with 'Topics' (containing a search bar and a 'Home' button) and 'Components' (with a description: 'Components are reusable collections of blocks that can be used anywhere.' and a 'Learn more' link). The main workspace features a grid of components: 'Talk', 'Listen', and 'Logic' in a vertical menu, and a workflow on the canvas. The workflow starts with a green 'Start' block (with a play icon) connected to a 'Welcome' message block. The message block contains the text: 'Welcome' and 'This is the first message in your assistant'. A blue play button is visible in the bottom right corner of the canvas.

The screenshot shows the Voiceflow creator interface in a browser window. The browser's address bar displays the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/`. The page title is "WHO-5 / Home".

The interface includes a left sidebar with a "Topics" section containing a search bar and a "Home" button. Below this is a "Components" section with the text: "Components are reusable collections of blocks that can be used anywhere." and a "Learn more" link.

The main workspace features a grid of components. A "Start" block (green oval with a play icon) is connected to a "Welcome" message block (light blue rounded rectangle). The "Welcome" block contains the text: "This is the first message in your assistant".

At the bottom right of the workspace is the Voiceflow logo (a blue circle with a white 'v').

The image shows a web browser window displaying the Voiceflow creator interface. The browser's address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/`. The page title is "WHO-5 / Home".

The interface is divided into several sections:

- Left Sidebar:** Contains navigation icons and a "Topics" section with a search bar and a "Home" button. Below it is a "Components" section with a description: "Components are reusable collections of blocks that can be used anywhere." and a "Learn more" link.
- Top Bar:** Includes a "Share" button and a play button.
- Canvas:** A workspace with a grid background. A workflow is visible, starting with a green "Start" block (with a play icon) connected to a "Welcome" message block. The "Welcome" block contains the text: "This is the first message in your assistant".
- Component Palette:** A vertical menu on the left side of the canvas with icons for "Talk", "Listen", and "Logic". The "Logic" icon is highlighted with a red box.

The Voiceflow logo is visible in the bottom right corner of the canvas.

The screenshot shows the Voiceflow creator interface. The browser address bar displays the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/`. The page title is "WHO-5 / Home".

On the left sidebar, there is a "Topics" section with a search bar and a "Home" button. Below it, a "Components" section is highlighted with a red box, containing the text: "Components are reusable collections of blocks that can be used anywhere." and a link to "Learn more".

The main workspace features a vertical toolbar with icons for "Talk", "Listen", "Logic", "Event", "Dev", and "Library". The "Talk", "Listen", "Logic", and "Event" icons are highlighted with a red box.

The workflow canvas shows a "Start" block (green oval) connected to a "Welcome" block (light blue rounded rectangle). The "Welcome" block contains the text: "This is the first message in your assistant".

At the bottom right of the canvas, there is a blue circular icon with a white "V" logo.

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The interface is divided into several sections:

- Header:** Shows the project name "WHO-5 / Home" and navigation options like "Share", "Refresh", and "Play".
- Left Sidebar:** Contains navigation icons for Topics, Home, and various components like Talk, Listen, Logic, Event, Dev, and Library.
- Central Canvas:** A workflow diagram on a grid background. It starts with a green "Start" button connected to a "Welcome" block. The "Welcome" block contains the text "This is the first message in your assistant". A red circle highlights a play button on the "Welcome" block, with a callout box that says "Start test from here".
- Right Panel:** Titled "Speak", it shows a preview of the assistant's response. It includes a "Speak variant 1" dropdown, a text input field containing "This is the first message in your assistant", and a play button next to "Alexa". Below this are buttons for "How it works?" and "Add Variant".
- Bottom Left:** A "Components" section with the text "Components are reusable collections of blocks that can be used anywhere." and a "Learn more" link.
- Bottom Right:** The Voiceflow logo.

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The main workspace is a grid where a workflow is being built. A green "Start" block is connected to a "Welcome" block containing the text "Hi there! I am here to assess your wellbeing." Below this is an "Enter speak reply" input field. A red "Speak" block is being dragged from the components library to the "Enter speak reply" field. A red arrow points from the "Speak" block to the input field, with the text "Drag and Drop" written in red below it. A tooltip for the "Speak" block reads: "Text-to-speech messages spoken by the Voice assistant. Learn More".

Drag and Drop

Speak
Text-to-speech messages spoken by the Voice assistant.
Learn More

Start

Welcome
Hi there! I am here to assess your wellbeing.
Enter speak reply

Speak variant 1
Hi There I am here to assess your wellbeing.
Alexa

How it works? Add Variant

The screenshot displays the Voiceflow creator interface. On the left, there is a sidebar with 'Topics' (Home) and 'Components' (reusable collections of blocks). The main workspace shows a workflow with a 'Start' block and a 'Choice' block. A 'Capture' block is being dragged from the components panel into the workflow. A tooltip for the 'Capture' block reads: 'Capture and record all or part of a user's utterance within a variable. Learn More'. A red arrow points from the 'Capture' block to a 'Select entity to capture' dropdown menu in the workflow. The text 'Drag and Drop' is overlaid in red at the bottom of the workspace.

creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsyjl/canvas/6383d22a10f397afc550065b

WHO-5 / Home

Topics

Search

Home

Components

Components are reusable collections of blocks that can be used anywhere. [Learn more](#)

Choice

Capture

Capture and record all or part of a user's utterance within a variable. [Learn More](#)

Start

Hi there! I am here to assess your wellbeing.

Please answer each of the five questions on the scale of 0 to 5.0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

Select entity to capture

Drag and Drop

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The interface is divided into several sections:

- Top Bar:** Shows the project name "WHO-5" and navigation icons for home, search, and play.
- Left Sidebar:**
 - Topics:** A search bar and a "Home" button.
 - Components:** A list of reusable blocks including Talk, Listen, Logic, Event, Dev, and Library.
- Canvas:** A central workspace with a grid background. A "Welcome" block is connected to a "Listen" block. The "Welcome" block contains the following text:

Hi there! I am here to assess your wellbeing.

Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

Select entity to capture
- Right Panel:** A "Capture" configuration panel for "Capture 1". It includes a dropdown menu to "Select entity to capture", a search bar for "Search entities", and a "Create New Entity" button.

Create Entity

Name
score

Type
Number

Entities with built-in types don't require additional sample values. If you'd like to add more you can extend the entity.

Values

0 Enter

1 Add synonyms

2 Add synonyms

3

Cancel Create Entity

The screenshot shows the Voiceflow creator interface for a project named "WHO-5". The browser address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/node/6383e2...`

The interface is divided into several sections:

- Left Sidebar:** Contains navigation icons and a "Topics" section with a search bar and a "Home" topic selected.
- Component Library:** A vertical list of icons for "Talk", "Listen", "Logic", "Event", "Dev", and "Library".
- Canvas:** A central workspace with a grid background. A "Welcome" block is connected to a "Capture {score}" block. The "Welcome" block contains the following text:
 - Hi there! I am here to assess your wellbeing.
 - Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.
 - Over the last 2 weeks, how often have you felt cheerful and in good spirits?
- Right Panel:** A configuration panel for the selected "Capture" block. It includes:
 - Capture score:** A dropdown menu showing "{score}" with an edit icon.
 - Entity reprompt:** A plus sign (+) to add a reprompt.
 - Actions:** A plus sign (+) to add actions.
 - How it works?** A link with a help icon.
 - Add Capture:** A blue button to add the capture block.

creator.voiceflow.com/project/6383d22a10f397afc550065a/prototype

Back | esc back to designer | 00:00 | Share Prototype

Start

Welcome

Hi there! I am here to assess your wellbeing.


Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

Capture (score)

Read only

TRAINING




Your assistant needs training

Train your assistant for the highest fidelity testing experience. [Learn more.](#)

Train Assistant

DIALOG



Run your project

Start a test to interact with your project using text, voice or buttons. [See more.](#)

Run Test

The screenshot displays the Voiceflow creator interface. At the top, there are browser tabs for 'WHO5' and a URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/prototype`. A navigation bar includes a 'Back' button, a '00:20' timer, and a 'Share Prototype' button. The main workspace shows a workflow diagram with a 'Start' node connected to a 'Welcome' block. The 'Welcome' block contains three text messages and a 'Capture {score}' action. The right-hand panel shows a 'TRAINING' section with a 'DIALOG' view. The dialog history includes: 'Hi there! I am here to assess your wellbeing.', 'Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.', and 'Over the last 2 weeks, how often have you felt cheerful and in good spirits?'. A response of '2' is shown. Below the dialog, a 'Session Ended' message is displayed with a red box around the text 'Path not connected. Try Again'. At the bottom of the panel, there are controls for text input, voice recording, and navigation, along with a 'Save' button.

creator.voiceflow.com/project/6383d22a10f397afc550065a/prototype

Back esc back to designer 00:20 Share Prototype

TRAINING

DIALOG

Hi there! I am here to assess your wellbeing.

Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

2

Session Ended

Path not connected. Try Again

Conversation has ended. Reset Test

Save

Read only

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The interface includes a top navigation bar with the project name and a search bar. On the left, there is a sidebar with "Topics" (Home) and "Components" (reusable blocks). The main workspace shows a flow diagram with a "Welcome" block containing text and a "Capture (score)" block. A red box highlights an "Intent" block, and a red arrow points to a "Select intent..." block, with the text "Drag and Drop" overlaid in red. A tooltip for the "Intent" block explains its function: "Listens for the linked intent and triggers the conversation path." and includes a "Learn More" link.

WHO-5 / Home

Topics

Search

Home

Components

Components are reusable collections of blocks that can be used anywhere.

[Learn more](#)

Drag and Drop

Intent

Listens for the linked intent and triggers the conversation path.

Learn More

Select intent...

Welcome

Hi there! I am here to assess your wellbeing.

Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

Capture (score)

The screenshot displays the Voiceflow creator interface for a project named 'WHO-5'. The browser address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/nod...`

The interface is divided into several sections:

- Topics:** A sidebar on the left with a search bar and a 'Home' button.
- Components:** A sidebar on the left with a description: 'Components are reusable collections of blocks that can be used anywhere.' and a 'Learn more' link.
- Canvas:** A central workspace with a grid background. A block labeled 'Select intent...' is placed on the canvas.
- Intent:** A dropdown menu on the right showing a list of intents: 'No', 'Yes', 'Stop', 'Next', 'Help', 'Pause', 'Cancel', and 'Resume'. A 'Create New Intent' button is visible at the bottom of the dropdown.

The 'Intent' dropdown menu is currently open, showing a search bar and a list of intents. The 'Create New Intent' button is highlighted in red.

The screenshot displays the Voiceflow Creator web interface. A central dialog box titled "Create Intent" is open, featuring the following sections:

- Name:** A text input field containing "get_response1_ask_question_2".
- Utterances:** A section with a plus icon and a text input field containing "Add sample phrase, { to add entities".
- Required entities:** A section with a plus icon.

At the bottom of the dialog are two buttons: "Cancel" and "Create Intent".

The background interface includes:

- Browser tabs:** Two tabs labeled "WHO-5".
- Address bar:** URL "creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/node/63...".
- Left sidebar:** "Topics" section with a search bar and a "Home" button; "Components" section with a description and a "Learn more" link; a vertical menu with icons for Talk, Listen, Logic, Event, Dev, and Library.
- Canvas:** A central workspace with a "Select intent" button.
- Right sidebar:** "Intent" configuration panel with a "Select trigger intent" dropdown, an "Actions" section with a plus icon, a toggle for "Available from other topics?", and a "How it works?" link.
- Bottom right:** A blue circular logo with a white "V".

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The main canvas shows a workflow with a "Welcome" block containing the following text:

Hi there! I am here to assess your wellbeing.

Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

Below the text is a "Capture (score)" block, which is highlighted with a red border. A context menu is open over this block, with the "Go to Intent" option highlighted in red. Other options in the menu include "Go to Block", "End", "Set variable", "API", "Code", and "Component".

The right sidebar shows the "Capture" settings panel, which includes a "Capture score" field with a dropdown menu showing "{score}", an "Entity reprompt" field, and an "Actions" section with a plus sign.

The left sidebar shows the "Topics" section with a search bar and a "Home" button, and the "Components" section with a description: "Components are reusable collections of blocks that can be used anywhere. [Learn more](#)".

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The browser address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/node/63...`

Left Sidebar:

- Topics:** Search, Home
- Components:** Components are reusable collections of blocks that can be used anywhere. [Learn more](#)
- Toolbox:** Talk, Listen, Logic, Event, Dev, Library

Canvas:

- Block: `@ get_response1_ask_question...`
- Block: **Welcome**
 - Text: "Hi there! I am here to assess your wellbeing."
 - Text: "Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time."
 - Text: "Over the last 2 weeks, how often have you felt cheerful and in good spirits?"
 - Block: **Capture {score}** with a **Select intent** button.

Right Panel: Capture

- Select an intent dropdown
- Search intents input
- Home
- get_response1_ask_question_2** (highlighted in red)

Bottom Right: Voiceflow logo

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The browser address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b`. The interface includes a top navigation bar with "WHO-5 / Home" and "Share" buttons. On the left, there is a "Topics" sidebar with a search bar and a "Home" button, and a "Components" section with a description: "Components are reusable collections of blocks that can be used anywhere." and a "Learn more" link. A central vertical toolbar contains icons for Talk, Listen, Logic, Event, Dev, and Library. The main canvas shows a workflow starting with a "Welcome" block containing the text: "Hi there! I am here to assess your wellbeing." and "Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time." Below this is a question: "Over the last 2 weeks, how often have you felt cheerful and in good spirits?". This is followed by a "Capture (score)" block, which is connected to a red-bordered block labeled "get_response1_ask_question_2". A dark grey block labeled "get_response1_ask_question..." is positioned above the main workflow.

The screenshot displays the Voiceflow creator interface for a project named 'WHO-5'. The main workspace shows a workflow diagram with a central 'Ask Q2' block containing the text 'How often have you felt calm and relaxed?'. This block is connected to two 'get_response' blocks: 'get_response1_ask_question...' on the left and 'get_response_2_ask_questio...' on the right. A 'Capture (score)' block is positioned below the 'Ask Q2' block, with an arrow pointing from the 'Ask Q2' block to it. The right-hand panel is titled 'Capture' and includes a 'Capture score' dropdown menu set to '{score}', an 'Entity reprompt' field, and an 'Actions' section with a button labeled 'Go to 'get_response_2_ask_question_3' intent'. Below the 'Capture' panel, there is a 'How it works?' link and an 'Add Capture' button. The left sidebar contains 'Topics' (with a search bar and 'Home' selected) and 'Components' (with a description and a 'Learn more' link). The top navigation bar includes 'WHO-5' tabs, a search bar, and various utility icons. The bottom right corner features the Voiceflow logo.

The screenshot displays the Voiceflow Creator web application. The browser address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsy1l/canvas/6383d22a10f397afc550065b`. The interface includes a top navigation bar with a play button, a 'Share' button, and a refresh button. On the left, there is a sidebar with 'Topics' (containing a search bar and a 'Home' button) and 'Components' (with a description: 'Components are reusable collections of blocks that can be used anywhere.' and a 'Learn more' link). A central vertical toolbar contains icons for 'Talk', 'Listen', 'Logic', 'Event', 'Dev', and 'Library'. The main workspace shows a workflow on a grid background. A dark block labeled 'get_response1_ask_question...' is connected to a light blue block labeled 'Ask Q2'. The 'Ask Q2' block contains the text 'How often have relaxed?' and a 'Capture (s)' button. A context menu is open over the 'Ask Q2' block, listing the following actions: 'Block color', 'Save to library', 'Rename', 'Add comment', 'Copy' (with keyboard shortcut ⌘C), 'Duplicate' (with keyboard shortcut ⌘D, highlighted in red), and 'Delete' (with keyboard shortcut Del). To the right of the context menu, there is a red text overlay that reads: 'You can duplicate/copy the blocks'. The bottom right corner of the workspace features the Voiceflow logo.

**Create rest of the flow,
train the assistant, and test it.**

Implementing a design Guideline

Use Conversation Markers

Let the user know that the agent hears and understands them.

E.g. use acknowledgements and feedback: “Thanks,” “got it,” “okay,” “great,” and “sure”.

The screenshot shows the Voiceflow creator interface in a browser window. The browser tabs include 'WHO5', 'Voice User Interface (Explaine...', and 'WHO-5'. The address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b`. The interface features a top navigation bar with 'WHO-5 / Home' and 'Share' buttons. On the left, there is a 'Topics' sidebar with a search bar and a list of topics under 'Home', including 'Start' and several 'get_response' blocks. Below the topics is a 'Components' section with a description: 'Components are reusable collections of blocks that can be used anywhere.' and a 'Learn more' link. The main workspace is a flowchart editor with a grid background. A 'Component' block is selected, and a tooltip is displayed over it. The tooltip contains the text: 'Points the conversation to an existing Component.' and a 'Learn More' button. The 'Component' block in the flowchart is connected to a 'Logic' block, which is connected to an 'Event' block, which is connected to a 'Dev' block, which is connected to a 'Library' block. The flowchart also includes other blocks like 'Talk', 'Listen', 'Condition', 'Set', 'Random', and 'End'. The Voiceflow logo is visible in the bottom right corner of the interface.

The screenshot displays the Voiceflow creator interface. At the top, the browser address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/node/63...`. The interface includes a top navigation bar with the Voiceflow logo, a search bar, and buttons for 'Share', 'Refresh', and 'Play'. On the left, there is a 'Topics' sidebar with a search bar and a list of topics under 'Home', including 'Start' and several 'get_response' blocks. Below this is a 'Components' section with a description: 'Components are reusable collections of blocks that can be used anywhere.' and a 'Learn more' link. The central canvas shows a workflow with a 'conversation marker' block containing a dropdown menu 'Select a component'. A vertical toolbar on the left of the canvas provides icons for 'Talk', 'Listen', 'Logic', 'Event', 'Dev', and 'Library'. On the right, a 'Component' panel is open, showing a search bar, the text 'No components exist in your assistant.', and a 'Create New Component' button. The Voiceflow logo is visible in the bottom right corner of the interface.

The screenshot displays the Voiceflow creator interface in a web browser. The browser's address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/node/63...`. The interface includes a top navigation bar with the Voiceflow logo, a search bar, and buttons for 'Share', 'Refresh', and 'Play'. On the left, there are two sidebars: 'Topics' and 'Components'. The 'Topics' sidebar lists 'Home' with sub-items like 'Start' and several 'get_response' nodes. The 'Components' sidebar shows 'Component 1'. The central canvas is a grid-based workspace for building a conversation flow. A 'conversation marker' is placed on the grid, containing a 'Component 1' block. A vertical toolbar on the left side of the canvas provides tools for 'Talk', 'Listen', 'Logic', 'Event', 'Dev', and 'Library'. On the right, a 'Component' panel shows a dropdown menu set to 'Component 1' and a blue 'Enter Component' button. The bottom right corner of the interface features the Voiceflow logo.

The image shows the Voiceflow creator interface. At the top, there are browser tabs for 'WHO5' and 'Voice User Interface (Explaine...'. The address bar shows the URL: `creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/6383d22a10f397afc550065b/node/63...`. The interface is divided into several sections:

- Topics:** A sidebar on the left with a search bar and a list of topics under 'Home', including 'Start', 'get_response1_ask...', 'get_response2_as...', 'get_response3_as...', 'get_response4_as...', 'get_response5_co...', and 'conversation mar...'. A vertical toolbar with icons for 'Talk', 'Listen', 'Logic', 'Event', 'Dev', and 'Library' is positioned over the canvas.
- Canvas:** A central workspace with a grid background. A 'conversation marker' component is placed on the canvas. A context menu is open over this component, listing the following actions: 'Edit', 'Rename', 'Duplicate', 'Convert to Topic', and 'Delete'.
- Component Panel:** On the right side, a panel titled 'Component' shows the selected 'conversation marker' in a dropdown menu. Below it, there is a 'How it works?' section with an 'Enter Component' button.

WHO5 WHO-5 Voice User Interface (Explaine... +

creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/638422354d7a060007b244f9

WHO-5 / Home

Topics

- Search
- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- Search
- conversation marker

Talk

Listen

Logic


Event

Dev

Library

Start

Return to Instance



WHO5 WHO-5 Voice User Interface (Explaine... +

creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsgyll/canvas/638422354d7a060007b244f9

WHO-5 / Home

Topics

- Search
- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- Search
- conversation marker

Logic

- Condition: Configures 'if, then' logic statements for funnelling to paths. [Learn More](#)
- Set
- Random
- Component
- End

Talk

Listen

Event

Dev

Library

Start

Return to Instance

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The main workspace shows a workflow starting with a "Start" node connected to a "score check" node. The "score check" node is currently selected, and its configuration panel is open on the right side of the screen.

Condition Panel:

- Condition:** score <= 1
- IF:** score is less than or equal 1
- Add a condition:** +
- Actions:** +
- Condition:** score <= 3
- IF:** score is less than or equal 3
- Add a condition:** +
- Actions:** +

Workflow Nodes:

- Start
- score check
 - score <= 1
 - score <= 3
 - Else

Left Sidebar:

- Topics:** Search, Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker
- Components:** Search, conversation marker

Bottom Bar: Return to Instance

WHO-5 / Home

Start

score check

- score <= 1
- score <= 3
- Else

score <= 1

Sorry to hear that.

score <= 3

Alright.

score > 3

Nice to hear that.

Return to Instance

WHO5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Flowchart:

- get_response1_ask_question... → Ask Q2: How often have you felt calm and relaxed? → Capture (score) → get_response_2_ask_question_3
- get_response_2_ask_questio... → Ask Q3: How often have you felt active and vigorous? → Capture (score) → get_response_3_ask_question_4
- get_response_3_ask_questio... → Ask Q4: How often have you woken up feeling fresh and rested? → Capture (score) → get_response_4_ask_question_5
- get_response_4_ask_questio... → Ask Q5: How often have you felt that your daily life has been filled with things that interest you? → Capture (score) → get_response_5_conclude
- get_response_5_conclude → Conclusion

conversation marker

- conversation marker

WHO5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Flowchart components:

- get_response1_ask_question... → conversation marker → Ask Q2: How often have you felt calm and relaxed? → Capture (score) → get_response_2_ask_question_3
- get_response_2_ask_questio... → Ask Q3: How often have you felt active and vigorous? → Capture (score) → get_response_3_ask_question_4
- get_response_3_ask_questio... → Ask Q4: How often have you woken up feeling fresh and rested? → Capture (score) → get_response_4_ask_question_5
- get_response_4_ask_questio... → Ask Q5: How often have you felt that your daily life has been filled with things that interest you?

WHO5 / Home

Intent: get_response_2_ask_question_3

Actions: Go to Block, Go to Intent, End, Set variable, API, Code, Component

Topics: Home, Start, get_response1_ask..., get_response_2_as..., get_response_3_as..., get_response_4_as..., get_response_5_co..., conversation marker

Components: conversation marker

Flowchart:

```

    graph TD
      A[get_response1_ask_question...] --> B[conversation marker]
      B --> C[Ask Q3]
      C --> D[Capture {score}]
      D --> E[get_response_3_ask...]
      E --> F[Ask Q4]
      F --> G[Capture {score}]
      G --> H[get_response_4_ask...]
      H --> I[Ask Q5]
      I --> J[Capture {score}]
  
```

Ask Q3: How often have you felt active and vigorous?

Ask Q4: How often have you woken up feeling fresh and rested?

Ask Q5: How often have you felt that your daily life has been filled with things that interest you?

WHO5 WHO-5

creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsygl/canvas/6383d22a10f397afc550065b/node/63...

WHO-5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Intent

Select or create component

Search components

conversation marker

Create New Component

Flowchart components:

- get_response1_ask_question... → conversation marker
- get_response_2_ask_questio... → Ask Q3: How often have you felt active and vigorous? → Capture {score} → get_response_3_as...
- get_response_3_ask_questio... → Ask Q4: How often have you woken up feeling fresh and rested? → Capture {score} → get_response_4_as...
- get_response_4_ask_questio... → Ask Q5: How often have you felt that your daily life has been filled with things that interest you?

WHO5 / Home

get_response1_ask_question... → conversation marker → Ask Q2

get_response2_ask_questio... → conversation marker → Ask Q3

get_response3_ask_questio... → Ask Q4

get_response4_ask_questio... → Ask Q5

Ask Q2: How often have you felt calm and relaxed? Capture {score}

Ask Q3: How often have you felt active and vigorous? Capture {score}

Ask Q4: How often have you woken up feeling fresh and rested? Capture {score}

Ask Q5: How often have you felt that your daily life has been filled with things

Components: conversation marker

Library: Talk, Listen, Logic, Event, Dev

WHO5 / Home

creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsygl/canvas/6383d22a10f397afc550065b

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Library

- Talk
- Listen
- Logic
- Event
- Dev
- Library

Flowchart:

```

    graph TD
      Start((get_response1_ask_question...)) --> CM1[conversation marker]
      CM1 --> Q2[Ask Q2  
How often have you felt calm and relaxed?  
Capture (score)]
      Q2 --> CM2[conversation marker]
      CM2 --> Q3[Ask Q3  
How often have you felt active and vigorous?  
Capture (score)]
      Q3 --> CM3[conversation marker]
      CM3 --> Q4[Ask Q4  
How often have you woken up feeling fresh and rested?  
Capture (score)]
      Q4 --> CM4[conversation marker]
      CM4 --> Q5[Ask Q5  
How often have you felt that your daily life has been filled with things]
  
```

Flowchart description: The flowchart consists of five sequential question blocks. Each block starts with a 'get_response' trigger, followed by a 'conversation marker' component, then an 'Ask' block containing a question and a 'Capture (score)' component. The 'Capture (score)' component of one block connects to the 'conversation marker' of the next block. The questions are: 'How often have you felt calm and relaxed?', 'How often have you felt active and vigorous?', 'How often have you woken up feeling fresh and rested?', and 'How often have you felt that your daily life has been filled with things'.

WHO5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Flowchart:

```
graph TD; M1[get_response1_ask_question...] --> CM1[conversation marker]; CM1 --> A2[Ask Q2: How often have you felt calm and relaxed?]; A2 --> C2[Capture score]; C2 --> M2[get_response_2_ask_question...]; M2 --> CM2[conversation marker]; CM2 --> A3[Ask Q3: How often have you felt active and vigorous?]; A3 --> C3[Capture score]; C3 --> M3[get_response_3_ask_question...]; M3 --> CM3[conversation marker]; CM3 --> A4[Ask Q4: How often have you woken up feeling fresh and rested?]; A4 --> C4[Capture score]; C4 --> M4[get_response_4_ask_questio...]; M4 --> CM4[conversation marker]; CM4 --> A5[Ask Q5: How often have you felt that your daily life has been filled with things that interest you?]; A5 --> C5[Capture score]; C5 --> M5[get_response_5_conclude]; M5 --> CM5[conversation marker]; CM5 --> CON[Conclusion: Thank you for answering the questions. Bye!];
```

Calculating user's wellbeing

- Store user's responses in a variable
- Sum them up
- Present the score at the end of the conversation

WHO-5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response2_as...
 - get_response3_as...
 - get_response4_as...
 - get_response5_co...
 - conversation marker

Components

- conversation marker

Workflow:

- Topic: Welcome
 - Hi there! I am here to assess your wellbeing.
 - Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.
 - Over the last 2 weeks, how often have you felt cheerful and in good spirits?
 - Action: Capture {score} (linked to get_response1_ask_question_2)

Context Menu:

- Set variable
- API
- Code
- Component

Right Sidebar (Capture settings):

- Capture score: {score}
- Entity reprompt: +
- Actions: Go to 'get_response1_ask_qu...'

WHO-5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response2_as...
 - get_response3_as...
 - get_response4_as...
 - get_response5_co...
 - conversation marker

Components

- conversation marker

Workflow:

- Talk
- Listen
- Logic
 - Event
 - Dev
 - Library

Welcome

Hi there! I am here to assess your wellbeing.

Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time.

Over the last 2 weeks, how often have you felt cheerful and in good spirits?

Capture {score}

Set variable

get_response

Capture

Set variable 1

APPLY TO Select variable

Search variables

- score
- sessions
- user_id
- timestamp
- platform
- locale
- intent_confidence
- last_utterance

Create New Variable

The screenshot shows the Voiceflow creator interface. A 'Create Variable' dialog box is open in the center, with a text input field containing 'sum_score'. Below the input field are 'Cancel' and 'Create' buttons. The background shows a workflow canvas with a 'Capture {score}' block connected to a 'Set variable' block. The right sidebar shows the 'Capture' configuration panel with 'Set variable 1' and an 'Add Set' button. The left sidebar shows 'Topics' and 'Components' sections.

The screenshot displays the Voiceflow creator interface for a project named "WHO-5". The main workspace shows a workflow with the following steps:

- Welcome**: A text block with the message: "Hi there! I am here to assess your wellbeing."
- Listen**: A block containing the question: "Please answer each of the five questions on the scale of 0 to 5. 0 being at no time, and 5 being all of the time. Over the last 2 weeks, how often have you felt cheerful and in good spirits?"
- Capture**: A block for capturing the score from the question above. It is currently selected, and its configuration is shown in the right-hand panel.

The right-hand panel, titled "Capture", shows the configuration for the selected block:

- Set (sum_score)**: A dropdown menu.
- APPLY TO**: A dropdown menu set to "{sum_score}".
- Expression**: A text input field containing the formula: $\{sum_score\} + \{score\}$.
- How it works?**: A link with an "Add Set" button next to it.

The left sidebar contains navigation options for "Topics" (Home, Start, and several "get_response" blocks) and "Components" (conversation marker).

WHO5 WHO-5

creator.voiceflow.com/project/6383d22a10f397afc550065a/domain/clazuumph4q7k07ok3dtsqyl/canvas/6383d22a10f397afc550065b/node/63...

WHO-5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Ask Q2

How often have you felt calm and relaxed?

Capture {score}

Set {sum_score} ... ore) + {score} → get_response_2_ask_question

Ask Q3

How often have you felt active and vigorous?

Capture {score}

get_response_3_ask_question_4

Ask Q4

How often have you woken up feeling fresh and rested?

Capture {score}

get_response_4_ask_question_5

Capture

Set {sum_score}

APPLY TO {sum_score}

{sum_score} + {score}

How it works? Add Set

WHO5 / Home

Topics

- Home
 - Start
 - get_response1_ask...
 - get_response_2_as...
 - get_response_3_as...
 - get_response_4_as...
 - get_response_5_co...
 - conversation marker

Components

- conversation marker

Library

- Talk
- Listen
- Logic
- Event
- Dev

Flowchart:

- get_response1_ask_question... → conversation marker → Ask Q2: How often have you felt calm and relaxed? → Capture (score) → Set (sum_score...core) + (score) → get_response_2_ask_question_3
- get_response_2_ask_questio... → conversation marker → Ask Q3: How often have you felt active and vigorous? → Capture (score) → Set (sum_score...core) + (score) → get_response_3_ask_questio_4
- get_response_3_ask_questio... → conversation marker → Ask Q4: How often have you woken up feeling fresh and rested? → Capture (score) → Set (sum_score...core) + (score) → get_response_4_ask_questio_5
- get_response_4_ask_questio... → conversation marker → Ask Q5: How often have you felt that your daily life has been filled with things that interest you? → Capture (score) → Set (sum_score...core) + (score) → get_response_5_conclude
- get_response_5_conclude... → conversation marker → Conclusion: Thank you for answering the questions. Bye!

The screenshot displays the Voiceflow creator interface for a project named 'WHO-5'. The interface is divided into several sections:

- Left Panel:** Contains 'Topics' and 'Components' sections. Under 'Topics', there is a 'Home' folder with several 'get_response' steps and a 'conversation marker'. Under 'Components', there is a 'conversation marker' component.
- Center Canvas:** Shows a workflow diagram. It starts with a 'Listen' step, followed by a 'conversation marker' component. The flow then branches into two paths:
 - Top Path:** 'Ask Q5' (text: 'How often have you felt that your daily life has been filled with things that interest you?') followed by a 'Capture (score)' action and a 'Set (sum_score)...' action.
 - Bottom Path:** 'Conclusion' (text: 'Thank you for answering the questions. Your wellbeing score is {sum_score} Bye!').
- Right Panel:** Titled 'Speak', it shows 'Speak variant 1' with the text: 'Thank you for answering the questions. Your wellbeing score is {sum_score} Bye!'. Below this, there is a 'How it works?' link and an 'Add Variant' button.

Activity:

Translate the wellbeing score {score_sum} to something meaningful and present it at the end of the conversation.

E.g.

- If $\text{score_sum} \leq 10$ = You need to improve your quality of life.
- If $\text{score_sum} \leq 20$ = You have a good quality of life. But you can do better.
- If $\text{score_sum} > 20$ = You have an excellent quality of life. Keep it up.

Conversational Design Process

4. Evaluate

Subjective assessment of speech system interfaces (SASSI Scale)

<https://bura.brunel.ac.uk/bitstream/2438/3077/1/SASSI%20Paper%202000.pdf>

		Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<i>System Response Accuracy</i>	1. The system is accurate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	2. The system is unreliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	3. The interaction with the system is unpredictable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	4. The system didn't always do what I wanted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	5. The system didn't always do what I expected.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	6. The system is dependable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	7. The system makes few errors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	8. The interaction with the system is consistent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	9. The interaction with the system is efficient.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Likeability</i>	10. The system is useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	11. The system is pleasant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	12. The system is friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	13. I was able to recover easily from errors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	14. I enjoyed using the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	15. It is clear how to speak to the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	16. It is easy to learn to use the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	17. I would use this system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	18. I felt in control of the interaction with the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Cognitive Demand</i>	19. I felt confident using the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	20. I felt tense using the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	21. I felt calm using the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	22. A high level of concentration is required when using the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	23. The system is easy to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Annoyance</i>	24. The interaction with the system is repetitive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	25. The interaction with the system is boring.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	26. The interaction with the system is irritating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	27. The interaction with the system is frustrating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	28. The system is too inflexible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Habitability</i>	29. I sometimes wondered if I was using the right word.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	30. I always knew what to say to the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	31. I was not always sure what the system was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Speed</i>	32. It is easy to lose track of where you are in an interaction with the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	33. The interaction with the system is fast.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	34. The system responds too slowly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Assignment

Following the design process, prototype a conversational agent for cognitive restructuring and evaluate it using SASSI scale.

Tasks

1. Come up with at least 3 alternatives for each user utterance and agent's prompts on the example conversation
2. Develop a conversation flow diagram with situations where users are likely to say something off-script and come up with ways to redirect the conversation to the original script
3. Create a prototype using voiceflow
4. Let another group members evaluate the agent using the SASSI scale

Cognitive Restructuring	
Agent	How are you feeling right now.
User	...
Agent	Tell me about the situation that made you feel so.
User	...
Agent	What goes through your mind when you think of that situation?
User	...
Agent	Is there an evidence that supports this thought?
User	...
Agent	Is there an evidence that doesn't supports this thought?
User	...
Agent	Considering the evidence you provided for and against the thought you have, can you come up with an alternative thought that is more positive and share that with me?
User	...
Agent	With the alternative thought, how do you feel now?
User	...