Azure Conversational AI

1 What Is Azure Conversational AI?

Azure Conversational AI is like a super-smart assistant that helps your apps understand what people say or type. Imagine a customer texting "I want pizza" to a food app—it figures out they want to order and what kind of food they mean. It's part of Microsoft Azure's tools, designed to make apps smarter for businesses, like restaurants, stores, or even schools. This AI can handle questions, give answers, or take actions, making it easier for companies to help customers without needing extra staff.
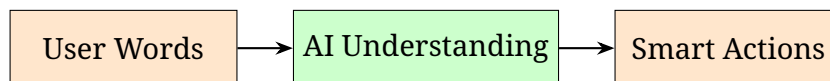
User Words → AI Understanding → Smart Actions

Figure 1: Conversational AI Overview

1.1 How It Works

Here's how the AI processes what people say:

1. **Words**: A user says or types something, like "I want pizza delivered tonight."

2. **Goal**: The AI figures out the main goal, like ordering food.

3. **Details**: It picks out key details, like "pizza" or "tonight."

4. **Action**: The app responds, like showing a pizza menu or confirming a delivery time.

For example, in a travel app, if someone says "Book a flight to Paris," the AI knows they want to book a trip and pulls out "Paris" as the destination. It's like a librarian who quickly finds the right book based on what you ask.
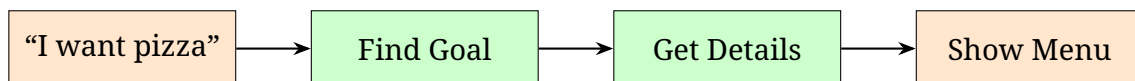
"I want pizza" → Find Goal → Get Details → Show Menu

Figure 2: Processing User Words

2 Main Features

Here are the key parts that make this AI work:

2.1 Goals

Goals are what users want to do, like ordering food or checking a delivery. You teach the AI by giving example sentences, like "I need a pizza" or "Track my order." For a shopping app, goals might be "Buy shoes" or "Return item."

2.2 Details

Details are specific pieces of information, like "pizza" or "7 PM." The AI has built-in details, like dates or numbers, and you can add your own, like "shoe size" for a store. This helps the AI understand exactly what users mean.

2.3 Training

You train the AI by giving it lots of example sentences. For example, a hotel app might train it with "Book a room" or "Cancel my stay." You test it to make sure it understands, then keep improving it with more examples.

2.4 Connecting

The AI connects to your app using simple coding tools. Whether you're building a website or a mobile app, it's easy to add this AI with languages like Python or JavaScript.

2.5 Scaling

The AI can work for small apps or huge businesses. For example, a small café can use it for a chatbot, while a big retailer can use it for thousands of customer questions.
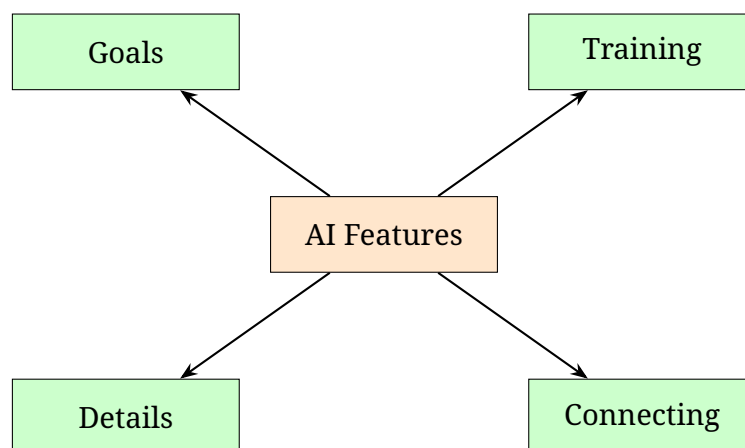

Figure 3: AI Features Overview

3   Understanding Feelings

This new feature lets the AI figure out how users feel, like if they're happy, angry, or confused. For example, if a customer says "I'm upset about my late order," the AI notices they're frustrated and suggests a kind response, like offering a refund. This helps businesses, like a call center, make customers happier by responding in the right way. It's like having a friend who knows when you're upset and how to cheer you up.
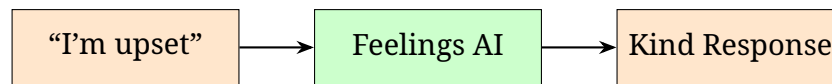
Figure 4: Understanding Feelings

4 Building Your AI

Here's how to create your own AI system:

1. **Start**: Set up an AI app in the Azure website, choosing a name and language, like English or Spanish.

2. **Add Goals/Details**: Pick what the AI should understand, like "order pizza" or details like "delivery time."

3. **Train**: Give example sentences, like "I want a large pizza" or "Deliver by 8 PM," so the AI learns.

4. **Test/Share**: Test it with new sentences to make sure it works, then add it to your app for users.

For example, a pizza shop can build an AI that understands orders and delivery requests, making it faster to serve customers.
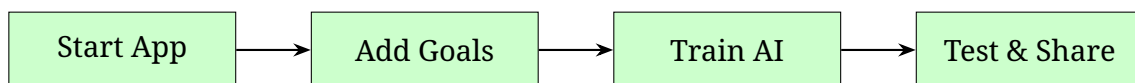

Figure 5: Building Your AI

5 Where to Use It

This AI can help in many ways:

- **Customer Help**: Create chatbots to answer questions, like "Where's my package?" for a delivery company.

- **Personal Assistant**: Build apps that set reminders or schedule meetings, like "Remind me at 3 PM."

- **Shopping**: Let users search with words, like "Find red shoes under $50," for an online store.

- **Content**: Sort user comments, like organizing feedback on a blog into positive or negative.

It's like having a helper that makes your app or business run smoother and smarter.

6 Tips for Success

To make your AI work great:

- **Clear Goals**: Make sure goals are specific, like "order" vs. "cancel," so the AI doesn't get confused.
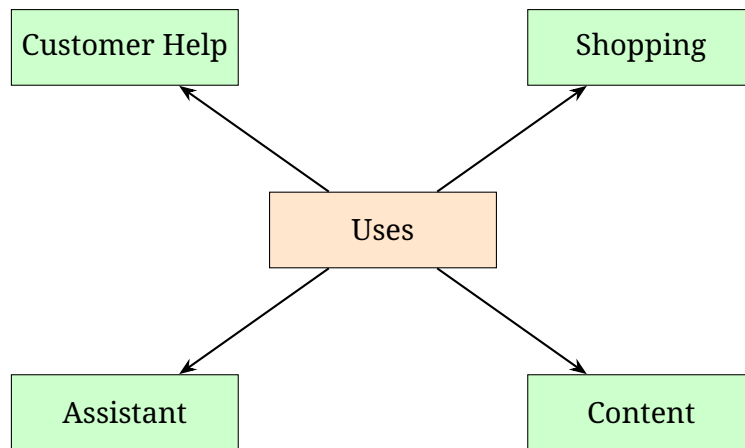
Figure 6: Uses of Conversational AI

- **Lots of Examples**: Give many sample sentences, like "I want pizza" or "Deliver now," to teach the AI well.

- **Keep Improving**: Check how the AI does with real users and add new examples to make it better.

- **Protect Privacy**: Keep user data safe, like not sharing customer names or orders, to follow laws.
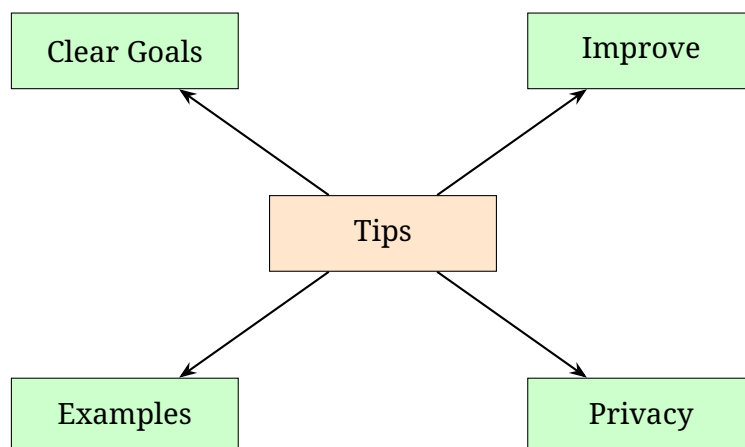
These tips ensure your AI is accurate and trustworthy, like a well-trained employee.

Figure 7: Tips for Success