



## FEATURE SCOPE DESCRIPTION | PUBLIC

SAP Conversational AI

Document Version: 1.0 – 2020-02-19

# Key Features of SAP Conversational AI

# Content

1 Key Features of SAP Conversational AI ..... 3

# 1 Key Features of SAP Conversational AI

## Business Background

SAP Conversational AI is a collaborative end-to-end platform for creating chatbots. Along with conversational natural language processing and dialog management features and a detailed API documentation, SAP Conversational AI makes it easy to connect your bots to almost all popular messaging channels. You can invite other persons to collaborate with you on your bots, or create a shared account (an organization account) that lets groups of people collaborate on bots at the same time. Besides this, you can also create an FAQ bot that retrieves answers to users' questions from one or more documents (.csv file) that you upload.

## About This Document

This document shows you which features are provided with SAP Conversational AI. These are legally binding. On the product pages of SAP Help Portal, you may come across additional features, or integration descriptions with other products that must be licensed separately. These descriptions may go beyond the product scope specified here. Further restrictions may apply based on your license agreement with SAP.

## Key Features of Natural Language Processing (NLP)

The following table explains the key features that are available for NLP:

Key Feature	Use
Classification	Detect the intent of a sentence, its global meaning, to understand the user request and trigger actions.
Named entity recognition (NER)	Detect and gather key information about important words in a sentence. SAP Conversational AI detects 28 different entities automatically (location, date/time, temperature, etc.). You can easily set up your own entities based on your use case.
Language detection	Automatically get the language of a user input to adapt the conversation and switch language smoothly. SAP Conversational AI supports most languages, with different levels of functionality. For example, intent classification is available for all supported languages, while sentiment analysis is available only for certain languages.

Key Feature	Use
Sentiment analysis	Detect the sentiment of a user input, from very negative to very positive, and respond accordingly.
Additional elements (act, type)	Gather other kind of data about a user input, such as the sentence type or act, to precisely set up chatbot responses.
Context management	Recognize pronouns (like <i>it</i> or <i>that</i> ) or superlatives (like <i>cheapest</i> or <i>most expensive</i> ) or ordinals (like <i>first</i> or <i>second</i> ) and map them to entities (for example, a name or product) previously mentioned in the conversation, so that users can meaningfully converse with your chatbot using natural language.

## Key Features of Chatbot Building

The following table explains the key features that are available for building a bot to perform actions:

Key features of a bot to perform actions

Key Feature	Use
Train	<p>Leverage NLP technology to create intents and train the language understanding of your bot on any topic.</p> <p>Take advantage of automatically suggested expressions to quickly increase the size of the training set, enabling your bot to understand its users more precisely. When you enter a new expression for an intent, the platform automatically suggests additional expressions that you can easily add to the intent. This feature is supported for English, French, German, and Spanish.</p>
Build	<p>Use skills, our unique way to build conversation flows, to create adaptable bots. Set up triggers, requirements, and bot responses in rich messaging (cards, buttons, quick replies, etc.) directly in the Bot Builder tool.</p> <p>Leverage bot memory to provide human-like conversations.</p> <p>Through fast training, build a functioning bot with small datasets (20+ sentences per intent).</p> <p>Create bots in multiple languages.</p> <p>Configure single sign-on or authentication for your end users. Once authenticated, the business user can interact with the chatbot without providing their credentials on each log on.</p>

Key Feature	Use
Connect	<p>Use webhooks to retrieve business information or connect to an external system to perform actions. A webhook is a simple HTTP call to your backend. You can configure the authentication, header content, and body content of the webhook.</p> <p>Connect your bot to almost all popular messaging channels (for example, Amazon Alexa, Teams, Facebook Messenger, SAP CoPilot, Slack, Twilio, Twitter).</p> <p>Connect the SAP Conversational AI Web Client to a channel and integrate it with your web solution without requiring user authentication. It provides a consistent conversational user experience that can be adopted easily across SAP products.</p> <p>Integrate a fallback channel (for example, SAP Customer Engagement Center or Intercom) so that conversations can be transferred from your bot to a human agent.</p>
Monitor	<p>Understand and monitor how your bot is used through:</p> <ul style="list-style-type: none"> <li>• Log feed (for example, filter your logs by intent, language, date, and strictness, or download all your logs as a .csv file)</li> <li>• Usage metrics (for example, number of conversations and users, how many messages are sent every day, month, and year, and which skills or intents are used the most)</li> <li>• Training analytics, enabling you to analyze the performance of your bot's training dataset, get suggestions on how to improve bot performance, and ensure that your training dataset represents reality</li> </ul>

The following table explains the key features that are available for building an FAQ bot to retrieve answers:

Key features of an FAQ bot to retrieve answers

Key Feature	Use
Train	<p>Leverage the simplified bot creation feature that lets you upload an FAQ file (.csv format) which includes a set of pre-defined question and answer pairs .</p> <p>To ease the complexity of the bot, the intents and entities are pretrained. You can upload files in four languages: German, French, Spanish, and English.</p> <p>After uploading your FAQ document, edit, add or remove question and answer pairs and perform various other actions directly on the screen.</p>

Key Feature	Use
Build	<p>Use the set of four pre-defined skills out of the box or adapt them as per your business needs.</p> <p>Send customized message using the confidence score of the FAQ text.</p> <p>Create customized messages to let your bot ask for feedback when the user selects a response.</p> <p>Enable your bot to reply when the user selects a response.</p> <p>Use the Small talk skill to define messages so that bot can greet the user with hello, thank you or goodbye.</p>
Connect	<p>Use webhooks to retrieve business information or connect to an external system to perform actions.</p> <p>Connect your bot to almost all popular messaging channels (for example, Amazon Alexa, Teams, Facebook Messenger, SAP CoPilot, Slack, Twilio, Twitter).</p> <p>Utilize resources like persistent static menu (on connecting your chatbot to Webchat and/or Messenger) that are always available to the users, enabling them to quickly trigger certain skills at any point in the conversation.</p> <p>Integrate a fallback channel (for example, SAP Customer Engagement Center or Intercom) to redirect the user to a human agent if your bot is unable to match the user's query to a suitable question and answer pair.</p>
Monitor	<p>Understand and monitor how your bot is used through:</p> <ul style="list-style-type: none"> <li>• Use the Log feed to see the list of all the sentences that were analyzed by your bot. You can filter your logs by intent, language, date, and strictness, or download all your logs as a .csv file. If your bot is unable to answer the user's question or retrieves an incorrect response, you can directly map that question to an answer in your FAQ document from the Log feed.</li> <li>• Usage metrics (for example, number of conversations and users, how many messages are sent every day, month, and year, and which skills or intents are used the most).</li> <li>• Training analytics, enabling you to analyze the performance of your bot's training dataset, get suggestions on how to improve bot performance, and ensure that your training dataset represents reality.</li> </ul>

Key Feature	Use
Measure FAQ Bot Accuracy	<p>Use the benchmarking script to analyze your FAQ bot's accuracy in responding to the user's questions.</p> <p>You can measure up to three levels of accuracy or precision using the script. At each accuracy level, the report also shows the questions that were not answered correctly</p>
Custom Normalization	<p>Use custom normalization to transform words or word sequences into a canonicalized (standard or normal) format.</p> <p>The custom normalization feature lets your bot identify and correctly process phrases (typed by a user) which are different from what the content creator had in mind, without imposing on your users how they should phrase their information needs.</p> <p>This feature is useful:</p> <ul style="list-style-type: none"> <li>• If there are variations in how people refer to terms that exist in your document</li> <li>• If your content has a lot of abbreviations and/or if you users tend to use a lot of abbreviations</li> <li>• If the content owners are in different locations and there are inconsistencies in spellings</li> </ul>

## Key Features of Chatbot Management

The following table explains the key features that are available for managing your bots:

Key Feature	Use
Versioning	<p>Version your chatbot and easily deploy it to specific environments. For example, you may want to create a new version of your bot prior to major updates to your training dataset or skills, and test the new version in a staging environment before moving it to the production environment. Or you may want to create two or more variants of the same core bot for different audiences. When you create a new bot, by default, your bot has only one main version <a href="#">v1</a> and is assigned to the <i>DEVELOPMENT</i> environment</p>

Key Feature	Use
Organizations	Organizations are shared accounts, allowing groups of people to collaborate on many chatbots at the same time. You can create private and public organizations. Everyone can view public organizations, their chatbots, as well as their members. Private organizations can only be viewed by their members.
Roles and permissions	<p>If you're the administrator of an organization:</p> <ul style="list-style-type: none"> <li>• At organization level, you can assign a base permission – like <i>Read only</i>, <i>Read and write</i>, etc. – to all members of the organization You can also assign additional permissions to teams consisting of one or more members of the organization..</li> <li>• At bot level, you can assign a permission to teams for all versions of a particular bot. You can also assign additional environment permissions to teams.</li> </ul>

# Important Disclaimers and Legal Information

## Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.

About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

## Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.

The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

## Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

## Gender-Related Language

We try not to use gender-specific word forms and formulations. As appropriate for context and readability, SAP may use masculine word forms to refer to all genders.

## Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

© 2020 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see <https://www.sap.com/about/legal/trademark.html> for additional trademark information and notices.