

Introduction

Positioned as a SaaS, the Next4biz AI ChatBot utilizes GPT models developed by OpenAI—which also form the infrastructure of ChatGPT—to generate the best possible answers to questions asked of it. For the ChatBot to produce accurate responses on topics it does not know, it must scan your documents (information, records, and content).

- Your documents are **anonymized** and used in deep learning via OpenAI services.
- Similarly, questions asked to the ChatBot and the generated responses are produced via OpenAI services.
- During the project, necessary preliminary work and transformation tasks are performed so that the information, documents, and content you share can be used in the learning phase.
- A learning model is created and tested. Success rates are determined and shared.
- Project scope and cost may increase depending on the quality of the shared content and documents.

Appropriate Document Structure for Creating a Knowledge Base

To create the knowledge base that the ChatBot will use for its responses, contents must be provided in the desired form and constraints in English and Turkish. If needed, translation can be provided via LLM. However, using machine translation may cause issues with synonyms.

For the ChatBot model to provide satisfactory answers to questions about the company and products, it must have access to relevant company/product information. Preparing company/product information in an organized manner, in

separate documents complying with the structure specified here, will significantly increase the model's response performance and speed.

1. Functional Description Documents

- The **name of the function** must be written on the first line.
- The steps required to perform the function must be written step-by-step, with each step on a new line.
- Information not directly related to the function should not be included in the document.
- A sentence explaining the functionality may optionally be included before the steps.
- Steps must be simple and understandable.
- If the steps of the function can be explained briefly, operation details like Create/Delete/Edit can be included in the same document.

Correct Example *Analysis:* The example document below has a title explaining the functionality on the first line. The first line after the title contains a sentence explaining the function. This sentence is optional but serves to convey extra information explaining the function's purpose to the chatbot model. This explanation sentence can specify whether the functionality belongs to CRM or CSM. The steps are simple and understandable. The locations of buttons to be clicked are specified according to the menu they are in and their position on the page.

Creating SMS Template Groups

You can create special template groups for the campaigns you will implement in the SMS channel.

To perform this operation, click on the SMS Template Groups submenu under the Campaign heading in the Settings menu.

You can easily make the definition by using the ADD NEW button in the upper right corner of the page that opens.

Incorrect Example *Analysis:* The example below contains 4 extra sentences explaining the function. If the function is complex and has details to be explained, it is more appropriate to specify these details in a separate document. The locations

of the buttons used in the steps are not clearly specified. Functions like adding, removing, and editing can be specified in the same document, but attention should be paid to document length and the clarity of the steps.

Customer Tagging

Tags are tools in Next4biz CRM that help to better recognize and classify customers based on sales channels.

You use tags in filters for reporting, detailed analysis, determining campaign audiences, and triggering automatic business rules.

Labeling can be done manually on customer cards, one by one, based on sales channels, or it can be done automatically with business rules.

You can also manage tags collectively on the DETAILED SEARCH screen.

To add a label to the customer card, simply give the label a name and click the ADD button.

When you start typing in the label field to use the same label on another customer, the labels available in the system will be listed.

To collectively assign a tag to create a micro customer segment on the DETAILED SEARCH page, select the customers and click on the ADD TAGS button that opens.

To remove it in the same way, just click on the REMOVE TAG button.

You can use the TAGS button in the CUSTOMER section of the SETTINGS menu to collectively manage the use cases of labels.

On the page that opens, you can view the usage numbers and creation dates of the tags for customers of person type, customers of company type and tasks.

If you wish, you can update it by using the edit button here.

Or you can select the ones you don't need and delete them in bulk.

2. Documents Explaining Company Information and Product Features

- Documents should be prepared such that each feature of the product is in a separate document.

- The name of the explained feature can be specified on the first line of the document.
- Emphasis can be placed on different aspects of the feature, such as the problem it solves, the value it adds, or the general functionality it contains.
- **Question formats should not be used** while explaining the feature/product within the document (Except for the first line title situation specified below).
- The feature should be explained taking document length into account. If explanations need to be long, documents can be divided into parts of a certain length and stored in the database. However, in this case, the sentences/sections within the document must be understandable when read independently of each other.
- Document contents should not be filled in a way that makes two documents look very similar.
- Topics not directly related to the feature should not be present in the document explaining the feature.
- It can be specified in the document which product the features are found in (optionally, which products they are **not** found in).
- CRM, CSM, and BPM products can generally be explained in different documents.
- A document generally explaining every aspect of the main product can be prepared, and the first line information can be given as a question format like **'What is Next4Biz CRM / Can you explain Next4Biz CRM'**. This allows the customer to be informed about the general aspects of the product when information about the main products is requested.
- References should not be made within the document to information that is not present in the document.

Correct Example

Next4Biz Multi-channel – Omnichannel

Next4Biz is a multi-channel solution. It listens to all communication channels, including call center, email, self-service, chat, social media, and text message. You can connect it to more channels using Next4Biz's integration layer web services. Next4Biz is also an omni-channel solution because Next4Biz listens

to all communication channels as if there is only one channel. Whichever the channel is being used, Next4Biz helps you to identify the customer, be aware of his previous communications, which have taken place in other channels. Through Next4Biz, you can define different workflows for different types of resolution processes. Therefore, corresponding workflow will be initiated depending on the issue category, customer segment, priority, or any attribute of the issue. Workflows may have many steps to be followed in a sequence, and in each step, different actions may be initiated. Service levels and escalation hierarchy can also be defined for each category or workflow step. So, whenever a delay occurs, the manager within the escalation hierarchy will be notified. If the delay persists, the issue will be escalated to an even higher level.

Incorrect Example *Analysis:* In the example below, a diagram that does not exist in the document is referenced. A question format that could confuse the model has been used ('But what will be the cost after delivery?'). It contains sentences that are not fully clear and do not carry much meaning on their own ('Sometimes you will change agent scripts based on your experiences.').

This is a diagram showing a comparison between traditional solutions and Next4Biz's no-code customer service management solution. The vertical and horizontal lines represent the cost and time dimensions. In a Next4Biz implementation, the delivery duration is much shorter, and the implementation costs are far fewer than the ones in traditional cases. But what will be the cost after delivery? As a result of changing requirements, sometimes you will discover better ways of resolving issues. You will improve your workflows, or sometimes you will need to add a new field on an issue form. Sometimes you will change agent scripts based on your experiences. Next4Biz is a no-code solution. You can design new processes or customize the current ones without any technical assistance.

Document Specifications

- Considering chunk size, each document should be around **500 words**, and limited to a narrative of **750 words**.
- Only information regarding a **single subject (atomic)** should be present within a document.
- For example, in a document where functionality A or a product is described, B should not be included.

Fine-Tuning

- **Fine-tuning** is applied for the ChatBot to comply with certain semantic or visual rules in its responses. This scope is shaped according to customer expectations.
- Writing the response as a paragraph.
- Writing the response in bullet points.
- Adding static content to the beginning or end of the response.

Validation

- The success of the developed ChatBot's LLM and RAG pipeline is evaluated via **RAGAS** success metrics: **Faithfulness, Answer relevancy, Context precision,** and **Context recall**.
- To enable this evaluation, at least **30 questions and answers** expected to be answered by the chatbot are requested from the customer.
- As a concrete measurable success target, the **answer relevancy** success criterion is targeted to be at least **80%**.