

Supermarket Assistant Chatbot - User Guide

Introduction

The Supermarket Assistant Chatbot is an intelligent application designed to help customers quickly locate items in a supermarket. Using advanced Natural Language Processing (NLP) techniques, the chatbot can understand your shopping requests in natural language and provide you with the exact shelf locations for each item.

Now available in two interfaces: a modern graphical interface (GUI) and a traditional command-line interface (CLI).

Key Benefits:

- **Save Time:** No more wandering around looking for items
- **Natural Language:** Type what you want to buy in plain English
- **Organized Lists:** Get items grouped by shelf for efficient shopping
- **Printable Output:** Save your shopping list for reference
- **Two Interfaces:** Choose between modern GUI or simple CLI

Getting Started

System Requirements

- Python 3.7 or higher
- Internet connection (for initial setup)

Installation Steps

1. Download the Application

- Extract the supermarket_chatbot folder into your PC.

2. Install Dependencies

- Go to the application folder and open cmd from that folder
- Run '**pip install -r requirements.txt**' to install required packages
- Run '**python -m spacy download en_core_web_sm**' to install spaCy model for better performance (OPTIONAL)

3. Run the Application

Easy Way (Recommended):

python launcher.py (From this, you can choose the GUI or CLI version of the chatbot)

Direct Launch:

For GUI version: python supermarket_chatbot_gui.py

For CLI version:python supermarket_chatbot.py

How to Use - GUI Version



Starting the GUI Application

1. Run: `python supermarket_chatbot_gui.py` or use the launcher
2. A modern window will open with the chatbot interface

GUI Interface Layout

- ✓ Left Panel - Input Area
 - **Text Input Box:** Type your shopping items here
 - **Find Items Button:** Process your shopping list
 - **Clear Button:** Clear the input field
 - **Example Buttons:** Click to try sample inputs
- ✓ Right Panel - Results Area
 - **Shopping List Display:** Shows organized results
 - **Save List Button:** Save your list to a file
 - **Print List Button:** Open list for printing
- ✓ Status Bar
 - Shows processing status and NLP information

Using the GUI

1. **Enter Items:** Click in the text box and type your shopping items
 - You can use natural language like "I want to buy apples, milk, and bread"
 - Or simple lists like "apples, milk, bread"
2. **Process List:** Click " Find Items" or press Ctrl+Enter
 - Watch the status bar for real-time processing updates
 - See NLP extraction happening in real-time
3. **Review Results:**
 - Items are displayed grouped by shelf numbers
 - Found items show with green checkmarks
 - Missing items are clearly marked
4. **Save or Print:**
 - Click " Save List" to save to a text file

- Click " Print List" to open for printing

GUI Tips

- Use the example buttons to test the system quickly
- The input box shows helpful placeholder text
- All processing happens in the background without freezing the interface
- The status bar keeps you informed of what's happening

How to Use - CLI Version

Starting the CLI Application

1. Run: `python supermarket_chatbot.py`
2. Follow the on-screen instructions

CLI Interaction Flow

1. **Welcome Message:** Read the introduction and examples
2. **Enter Shopping List:** Type your items when prompted
3. **View Results:** See the processed results and organized list
4. **Save Option:** Choose whether to save the list to a file
5. **Continue or Exit:** Add more items or type 'quit' to exit

CLI Commands

- **Regular input:** Type your shopping items
- **Exit commands:** quit, exit, bye, goodbye
- **Keyboard shortcut:** Press Ctrl+C to exit
-

Exiting the Application

Type any of these commands to exit:

- quit
- exit
- bye
- goodbye
- Press Ctrl+C

Sample Inputs and Expected Outputs

Here are some sample interactions for both GUI and CLI versions. The outputs show extracted items with shelf locations and grouped lists.

Example 1 (Natural Language Input):

Input: "I want to buy apples, milk, and detergent"

Expected Output:

 ITEMS FOUND:

Apples → Shelf 1

Milk → Shelf 2

Detergent → Shelf 5

SHELF 1:

- Apples

SHELF 2:

- Milk

SHELF 5:

- Detergent

Example 2 (List Input):

Input: "I need bread, eggs, chicken, and orange juice"

Expected Output:

 ITEMS FOUND:

Bread → Shelf 6

Eggs → Shelf 2

Chicken → Shelf 4

Orange → Shelf 1

Juice → Shelf 3

SHELF 1:

- Orange

SHELF 2:

- Eggs

SHELF 3:

- Juice

SHELF 4:

- Chicken

SHELF 6:

- Bread

Example 3 (With Unknown Item):

Input: "chocolate, pasta, ice cream, widgets"

Expected Output:

 ITEMS FOUND:

Chocolate → Shelf 7

Pasta → Shelf 8

Ice cream → Shelf 9

 ITEMS NOT FOUND:

Widgets (not in our database)

SHELF 7:

- Chocolate

SHELF 8:

- Pasta

SHELF 9:

- Ice cream