

Assignment 3

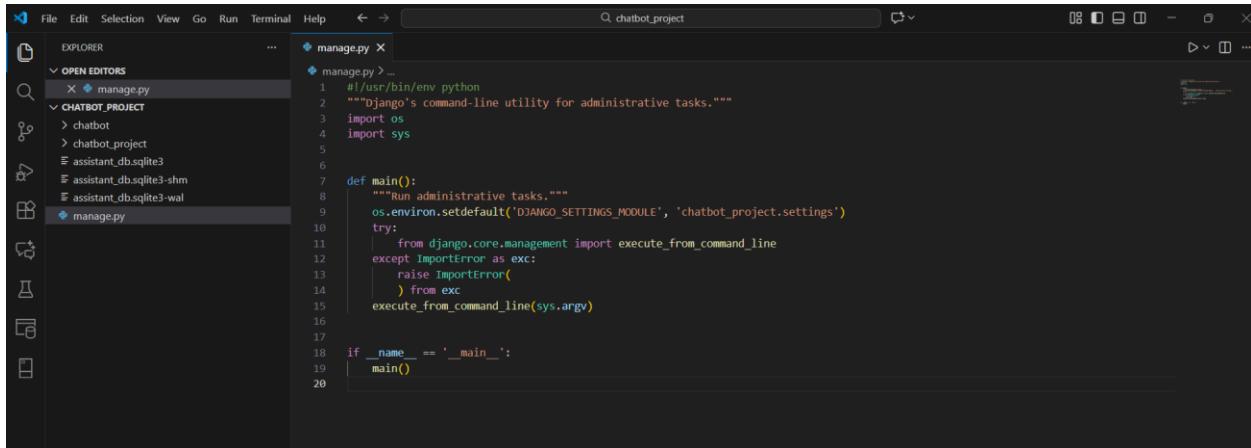
## **Assignment 3**

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Advance Artificial Intelligence (MSCS-633-B01)

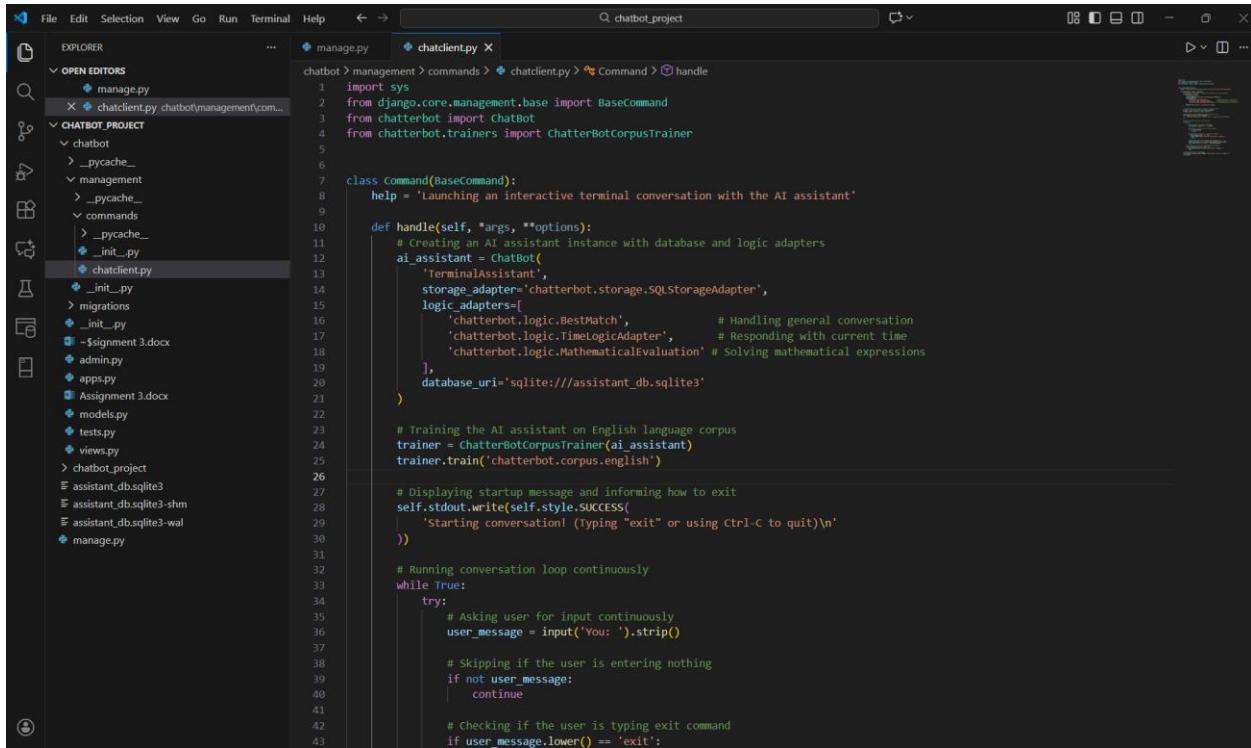
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## manage.py

A screenshot of a code editor window titled "manage.py". The window shows the Python code for the manage.py script. The code defines a main() function that sets the DJANGO\_SETTINGS\_MODULE environment variable to 'chatbot\_project.settings', imports execute\_from\_command\_line from django.core.management, and then calls it with sys.argv. It also includes a check for \_\_name\_\_ == '\_\_main\_\_' to handle direct execution. The code editor interface includes a sidebar with project files like chatbot, chatbot\_project, and database files, and a top bar with various menu options.

The manage.py file is a script that Django automatically generates when a new project is created. Its role is to provide a command-line tool for controlling and working with the Django application. When executed, it sets the appropriate environment variable, so Django knows which settings configuration to load. After that, it brings in Django's command-handling machinery and passes control to it. This setup enables to run various project-related commands, such as launching the development server, managing database migrations, creating apps, or executing custom commands. Essentially, manage.py acts as the main gateway for performing administrative operations in a Django project and ensures everything is properly configured before those tasks run.

## chatclient.py



```

File Edit Selection View Go Run Terminal Help < > chatbot_project
EXPLORER manage.py chatclient.py ...
chatbot>management>commands>chatclient.py > Command > handle
1 import sys
2 from django.core.management.base import BaseCommand
3 from chatterbot import ChatBot
4 from chatterbot.trainers import ChatterBotCorpusTrainer
5
6
7 class Command(BaseCommand):
8     help = "Launching an interactive terminal conversation with the AI assistant"
9
10    def handle(self, *args, **options):
11        # Creating an AI assistant instance with database and logic adapters
12        ai_assistant = ChatBot(
13            'TerminalAssistant',
14            storage_adapter='chatterbot.storage.SQLStorageAdapter',
15            logic_adapters=[
16                'chatterbot.logic.BestMatch',           # Handling general conversation
17                'chatterbot.logic.TimelogicAdapter',   # Responding with current time
18                'chatterbot.logic.MathematicalEvaluation' # Solving mathematical expressions
19            ],
20            database_uri='sqlite:///assistant_db.sqlite3'
21        )
22
23        # Training the AI assistant on English language corpus
24        trainer = ChatterBotCorpusTrainer(ai_assistant)
25        trainer.train('chatterbot.corpus.english')
26
27        # Displaying startup message and informing how to exit
28        self.stdout.write(self.style.SUCCESS(
29            'Starting conversation! (Typing "exit" or using Ctrl-C to quit)\n'
30        ))
31
32        # Running conversation loop continuously
33        while True:
34            try:
35                # Asking user for input continuously
36                user_message = input('You: ').strip()
37
38                # Skipping if the user is entering nothing
39                if not user_message:
40                    continue
41
42                # Checking if the user is typing exit command
43                if user_message.lower() == 'exit':
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## Output on Terminal

```

File "C:/Users/prash/AppData/Local/Programs/Python/Python313/Lib/site-packages/tqdm/std.py", line 1181, in __iter__
    for obj in iterable:
      ^^^^^^^^^^
File "C:/Users/prash/AppData/Local/Programs/Python/Python313/Lib/site-packages/chatterbot/corpus.py", line 84, in load_corpus
    corpus_data = read_corpus(file_path)
      ^^^^^^^^^^
File "C:/Users/prash/AppData/Local/Programs/Python/Python313/Lib/site-packages/chatterbot/corpus.py", line 56, in read_corpus
    raise OptionalDependencyImportError(message)
chatterbot.exceptions.OptionalDependencyImportError: Unable to import "yaml".
Please install "pyyaml" to enable chatterbot corpus functionality:
pip install pyyaml
PS C:\Users\prash\Desktop\Masters\Fall 2025\Advanced AI\chatbot_project> pip install pyYAML
>>>
Collecting pyYAML
  Downloading pyyaml-6.0.3-cp313-cp313-win_amd64.whl.metadata (2.4 kB)
  Downloading pyyaml-6.0.3-cp313-cp313-win_amd64.whl (154 kB)
Installing collected packages: PYYAML
Successfully installed PYYAML-6.0.3
PS C:\Users\prash\Desktop\Masters\Fall 2025\Advanced AI\chatbot_project> python manage.py chatclient
>>>
ChatterBot Corpus Trainer: 19it [00:01, 10.21it/s]
Starting conversation! (Typing "exit" or using Ctrl-C to quit)

You: Hello
Assistant: Hi
You: How are you?
Assistant: I am doing well.
You: What is 2@#
Assistant: h is to o as o is to v.
You: Sorry I meant 2@2
Assistant: 2 + 2 = 4
You: Okay, can you tell me the time right now?
Assistant: Yes, that is correct.
You: Ok, you clearly cannot
Assistant: What's up?
You: What is your name?
Assistant: I am still young by your standards.
You: Nevermind, what is 3@3
Assistant: 3 + 3 = 6
You: Ok, that is all I need for this project
Assistant: What are you working on?
You: 

```

Build with agent mode  
Let's get started

Add context (#), extensions (@), commands ▶

Build Workspace Show Config

AI responses may be inaccurate.

Ln 57, Col 78 Spaces: 4 UTF-8 CRLF { Python Finish Setup 3.13.7

66°F Sunny 3:57 PM 11/23/2025