



Customer Support Website With ChatGPT

Machine Learning
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Introduction

Project and Concepts





What is this project?

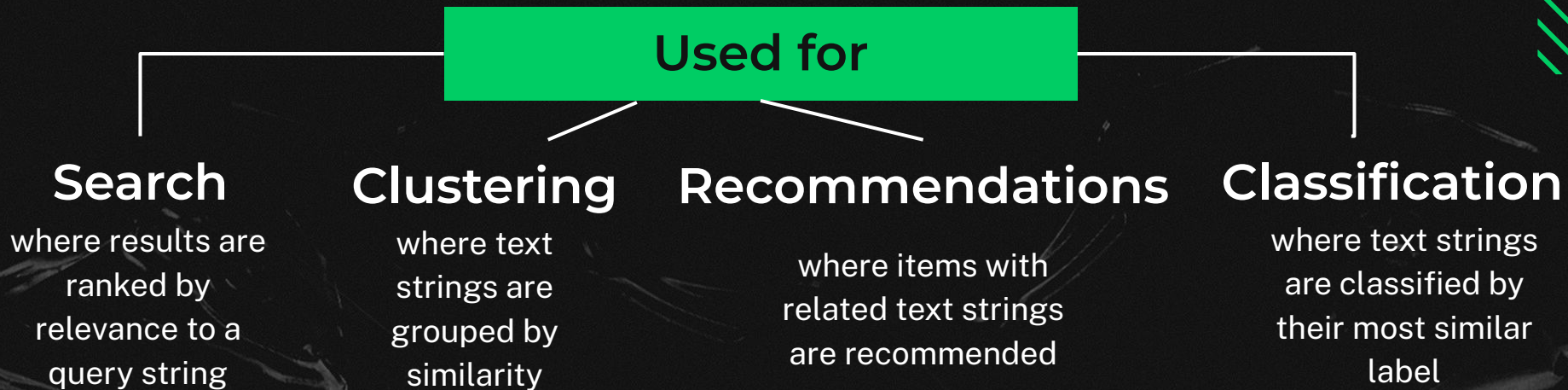
This project is to use the popular ChatGPT models to create a customer support website to answer questions from customers about their website.



OpenAI API Models

text-embedding-ada-002

We recommend using text-embedding-ada-002 for nearly all use cases. It's better, cheaper, and simpler to use.



OpenAI API Models

text-davinci-003

This model builds on top of previous InstructGPT models, and improves on a number of behaviors that we've heard are important to you as developers.

It includes the following improvements:

- It produces higher quality writing. This will help your applications deliver clearer, more engaging, and more compelling content.
- It can handle more complex instructions, meaning you can get even more creative with how you make use of its capabilities now.
- It's better at longer form content generation, allowing you to take on tasks that would have previously been too difficult to achieve.



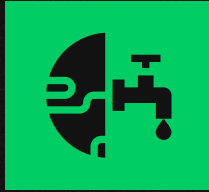
02

Design

How to structure the project

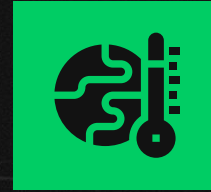


Design



Flask Framework

To display a customer friendly UI, using flask framework.



Integrated with APIs

Integrated with implementation of OpenAI APIs with flask framework.

Sections



Install Packages

Set up environment with installing all the packages needed in the requirements.txt file.

Embedded Text

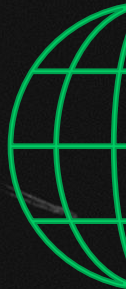
Use the text-embedding-ada-002 Model to embed the relevant data from the .csv file.

Crawl Data

Crawl data from the website and save the data as a .csv file for use later.

Display

Run the project with displaying the customer UI and collect questions.





03



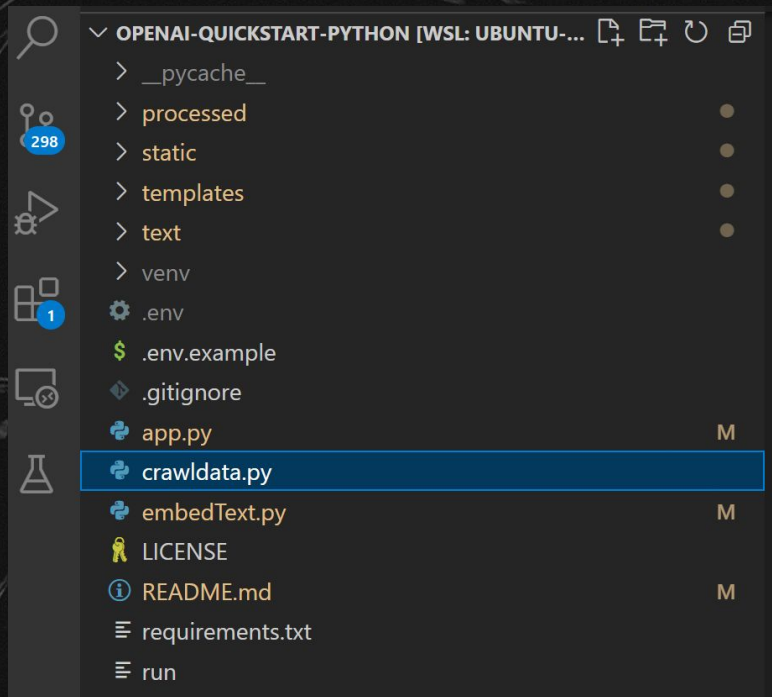
Implementation

Detailed steps



Project Structure

This project is run on
Ubuntu 22.04



Install Packages



List all needed packages and versions in
requirements.txt file.

```
$ pip install -r requirements.txt
```

You may need to update your setuptools to
make the installation smooth.

```
$ pip show setuptools
```

```
$ pip3 install --upgrade pip setuptools or
```

```
$ pip install --upgrade setuptools --user python
```



Crawl Data



\$ python3 crawldata.py

```
# Define root domain to crawl  
domain = "openai.com"  
full_url = "https://openai.com/"
```



Embedded



\$ python3 embedText.py

To avoid charge before everything work through,
test with simple data with credit given on OpenAI.

A	B	C	D	E	F	G	H
	title	text					
0	apple	Apple is a bit sour. It has red, green, yellow. The score is 3.5.					
1	peach	Peach is very delicious and the score is 5					

```
(env) ycao@instance-1:~/openai/EmbeddedChatGPT$ python embedText.py
(env) ycao@instance-1:~/openai/EmbeddedChatGPT$
```




Display the UI

\$ flask run

```
○ (venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python$ flask run
* Serving Flask app 'app' (lazy loading)
* Environment: development
* Debug mode: on
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 361-744-753
```




Customer Service

Ask your question about us

You:

Ask

Agent:







04

Test

Run the project with real
data.





Create Python Virtual Environment and install Packages

```
$ sudo apt install python3.10-venv
```

Install the needed packages if you don't have it
installed.

```
$ python3 -m venv venv
```

```
$ . venv/bin/activate
```

```
$ pip install -r requirements.txt
```



Crawl Data



\$ python3 crawldata.py

```
(venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python$ python3 crawldata.py
https://openai.com/
https://openai.com/policies
https://openai.com/policies/api-data-usage-policies
https://openai.com/contact-sales
https://openai.com/contact-sales#content
```



Embed Data



```
$ python3 embedText.py
```

No payment method linked, not working through since exceed limit of 60 requests per mins.

```
openai.error.RateLimitError: Rate limit reached for default-global-with-image-limits in organization org-5Wp0wasio09MFN8F2b7ki4ap on requests per min. Limit : 60 / min. Please try again in 1s. Contact support@openai.com if you continue to have issues. Please add a payment method to your account to increase your rate limit. Visit https://platform.openai.com/account/billing to add a payment method.
```

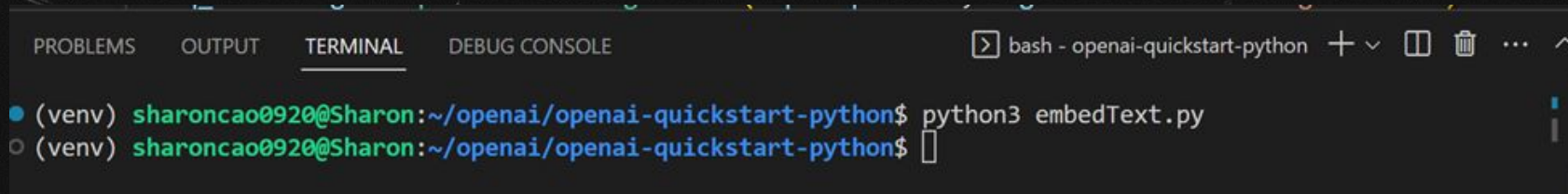
```
(venv) sharoncao0920@Sharon:~/openai/openai-quickstart
```



Embed Data

\$ python3 embedText.py

Worked through after adding payment method.



A screenshot of a terminal window with a dark background. The terminal title bar shows 'bash - openai-quickstart-python'. The terminal content shows two lines of text: a blue prompt character followed by '(venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python\$ python3 embedText.py' and a second line with a grey prompt character followed by '(venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python\$' and a cursor. The terminal window has tabs for 'PROBLEMS', 'OUTPUT', 'TERMINAL', and 'DEBUG CONSOLE'.

```
(venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python$ python3 embedText.py
(venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python$
```

Total cost for embedding the data.

Usage this month



\$0.38 / \$5.00



Run Project with UI

\$ flask run

```
○ (venv) sharoncao0920@Sharon:~/openai/openai-quickstart-python$ flask run
* Serving Flask app 'app' (lazy loading)
* Environment: development
* Debug mode: on
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 361-744-753
```





Customer Service

Ask your question about us

You:

What is CEO of OPENAI?

Ask

Agent:

Sam Altman



Customer Service

Ask your question about us

You:

How can I use GPT4 as soon as I can?

Ask

Agent:

Join the GPT-4 API waitlist by submitting your first name, last name, email, company name, and organization ID. Priority access is given to developers who contribute exceptional model evaluations to OpenAI Evals. Researchers studying the societal impact of AI or AI alignment issues can also apply for subsidized access via the Researcher Access Program.



Sample Questions and Answers



Sample Questions and Answers



Customer Service

Ask your question about us

You:

What is the difference between GPT3.5 and GPT4.0?

Ask

Agent:

GPT-4 is more reliable, creative, and able to handle much more nuanced instructions than GPT-3.5. GPT-4 scores 40% higher than GPT-3.5 on internal adversarial factuality evaluations and is better at separating fact from an adversarially-selected set of incorrect statements. GPT-4 also generally lacks knowledge of events that have occurred after the vast majority of its data cuts off and does not learn from its experience.



Customer Service

Ask your question about us

You:

How much does it cost to be a premium user of chatGPT?

Ask

Agent:

\$20/month.



05

Conclusion

Sum up the project.



Conclusions

The complete project can be found:

<https://github.com/SharonCao0920/ML-ChatGPT-CustomerSupportWeb>

Accuracy

- As the questions I asked based on my own data and data crawled from the website, the answer is quite accurate.
- I think the accuracy is more determined by the data provided by the website.

Cost

- To avoid high charges, we can use less data while developing.
- Use the real data only when the whole project go through as desired.
- In this project, the embedding text can be run only once to save money.



Final Cost



Usage this month



\$0.87 / \$5.00

Credit used ⓘ



\$0.87 / \$18.00

GRANT #	CREDIT GRANTED	EXPIRES (UTC)
---------	----------------	---------------

Grant 1	\$18.00	May 1, 2023
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06



Enhancement

What's next?



What's next?

UI

- Update the html with chat box for questions and answers

APIs

- Think of more ideas may be helpful for customer services

References

- <https://platform.openai.com/docs/guides/embeddings/what-are-embeddings>
- <https://help.openai.com/en/articles/6779149-how-do-text-davinci-002-and-text-davinci-003-differ>






Thanks!



Do you have any questions?



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