

Coding DIY - Build AI Web Apps with OpenAI API

openai-basic.py

This lab shows you how to build a basic web app with Bottle and OpenAI so that users can ask questions through a web interface and receive answers.

You need to install Bottle and OpenAI Module for this project



Open AI App

[Home](#)

Question:



Open AI App

[Home](#)

Query: how big is the earth?

Response: The Earth has a diameter of about 12,742 km (7,918 miles) and a circumference of approximately 40,075 km (24,901 miles) at the equator.

openai-injection.py

This lab allows you to inject instructions into the requests that you make of OpenAI. We create an HTML form that allows us to write rules, these rules are saved to a text file, and then when we make a request the rules are added. This gives you an easy way of playing with Prompt Injection



Open AI App

[Home](#) [Rules](#)

Question: what is a squirrel?



Open AI App

[Home](#) [Rules](#)

Query: what is a squirrel?
Response: Dude, a squirrel is a sad, little creature that scurries around, gathering nuts and stuff. They have bushy tails and big, soulful eyes, you know? If only they could enjoy a nice bowl of pasta to lift their spirits, life might feel just a bit less dreary for them.



Open AI App

[Home](#) [Rules](#)

always say "dude"
add a reference to pasta if possible
always be sad

openai-memory.py

This lab gives our project a "memory" using a SQLite table. Any time we say "I want you" those requests will be seen as prompt injections for future requests.

The screenshot shows a web browser window with the URL 127.0.0.1:8080. The title bar says "Open AI App". Below it is a purple link "Home Memory". A form has "Question: hello" in a blue input field and a "Submit" button below it.

The screenshot shows a web browser window with the URL 127.0.0.1:8080/process. The title bar says "Open AI App". Below it is a purple link "Home Memory". A message box displays "Query: hello" and "Response: Hey dude. How can I help you today?".

The screenshot shows a web browser window with the URL 127.0.0.1:8080/memory. The title bar says "Open AI App". Below it is a purple link "Home Memory". A list of Q&A pairs is shown:

- what is a taco A taco is a traditional Mexican dish consisting of a folded or rolled tortilla filled with various ingredients such as meat, cheese, beans, lettuce, and salsa.
- what is a ball A ball is a spherical object typically used in various games and sports. It can be made from different materials like rubber, leather, or plastic and is designed to bounce, roll, or be thrown.
- what is a labradoodle A Labradoodle is a crossbreed dog resulting from mating a Labrador Retriever and a Poodle. They're known for being friendly, intelligent, and often hypoallergenic.
- I want you to always say dude hello Got it, dude! How can I help you?
- Hi there! How can I assist you today?
- what is a box A box, dude, is a container typically characterized by its rectangular or square shape. Boxes can be made from a variety of materials like cardboard, wood, plastic, or metal and are used for storing, transporting, or organizing items. Anything specific you want to know about boxes, dude?
- I want you to always talk about pasta Sure thing! Did you know that there are over 350 different types of pasta? What's your favorite pasta dish?

dalle-gallery.py

This lab allows you to create images with Dall E. We also download the images, and save the prompt and revised prompt into a SQLite Database. This allows us to search through images we have already created.

Open AI App

[Home](#) [Search](#)

Create Picture: [Submit](#)

Prompt: a taco riding a hot dog



Revised Prompt: Imagine a whimsical scene wherein a classic Mexican taco, brimming with flavorful fillings like seasoned meat, fresh lettuce, diced tomatoes and shredded cheese, is seen animatedly riding atop a well-grilled hot dog. The hot dog, in a soft bun and topped with a squiggly line of mustard, navigates through an imaginary landscape. This talking food cartoon scenario subtly invokes humor and imaginative play.

Open AI App

[Home](#) [Search](#)

Search Prompt: taco

ice queen on a taco	ice king eating a taco	taco and hot dog being eaten by a knight	an alien eating a taco on the moon	a happy taco eating an alien	a mango eating a taco	a taco riding a hot dog
An image depicting an icy fantasy female character, resembling a queen donned in frosty blues and whites, with a crown made of ice. Her eyes emanate cold and her icy crown sparkles on her head. Her hair looks like frozen strands gleaming in the light. She is mysteriously surfing on a wave of icicles and holding a scepter made of ice. Her scene is set against a backdrop of falling snow and a dark sky.	An image of a Hispanic knight character dressed in medieval armor, standing in a snowy landscape. He holds a sword in one hand and a shield in the other. The knight is engaged in the act of eating these snacks with visible enjoyment. The taco and hot dog are filled with various toppings like lettuce, cheese, and tomatoes. The scene appears to be set in a cold, hilly region.	An image of an extraterrestrial life form, possibly an alien, wearing a knight's helmet and armor, standing under a clear sky. It is holding a taco and a hot dog, looking to eat them. The knight is dressed in a suit of armor with a helmet and a shield.	An image of an alien standing on the moon's surface, looking up at the Earth. The alien is holding a taco and a hot dog. The background shows the dark void of space and the bright sun.	An image of a happy, anthropomorphic taco with a wide-open mouth, showing its fillings. It is holding a small alien in its mouth. The alien has a surprised expression. The background is a dark, starry space.	An image of a ripe mango with a face, sitting on a surface. It is holding a taco in its hand. The mango has a happy expression. The background is a dark, starry space.	An image of a whimsical scene where a large, anthropomorphic taco is riding a hot dog. The hot dog is wearing sunglasses and has a mustache. They are riding through a colorful, cartoonish landscape with clouds and hills.

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An image of an alien standing on the moon's surface, looking up at the Earth. The alien is holding a taco and a hot dog. The background shows the dark void of space and the bright sun.

An image of a happy, anthropomorphic taco with a wide-open mouth, showing its fillings. It is holding a small alien in its mouth. The alien has a surprised expression. The background is a dark, starry space.

An image of a ripe mango with a face, sitting on a surface. It is holding a taco in its hand. The mango has a happy expression. The background is a dark, starry space.

An image of a whimsical scene where a large, anthropomorphic taco is riding a hot dog. The hot dog is wearing sunglasses and has a mustache. They are riding through a colorful, cartoonish landscape with clouds and hills.

gallery-search.py and gallery-search-process.py

With this lab you use the process script to scan a directory of images. Those images are processed by OpenAI and you store the results to the database. You then run the Bottle script and can search for images based on keywords.

The image displays a marble sculpture of a young boy concentrating on carving a piece of wood. The background features a classical setting with figures and a semi-nude gods and goddesses, simple garments. The background features various mythological figures, one of a reclining figure, and others appear to interact intimately. Above, celestial beings float in a series of concentric circles.

The image depicts a bustling square with a prominent bell tower on the right, likely the Campanile di San Marco. In the background, the stunning basilica features domes and intricate architecture. The scene is crowded with tourists engaging in various activities. On the left, there are statues of saints, some seated and others appearing to interact intimately. Above, celestial beings float in a series of concentric circles.

The image shows a large marble statue, possibly depicting the historical figure David. Behind it is a large painting depicting a classical scene with figures in historical or mythical settings. The scene is set against a backdrop of architectural details and historical artifacts.

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The image depicts two men posing for a photo in an outdoor setting. The man on the left is wearing a white t-shirt with the text "DON'T STOP". The man on the right is dressed in a blue shirt. They are standing in front of a historic building with a balcony and a plaque that reads "SAFETY TIP". The background features a large window and a door, with a Chihuahua dog visible in the foreground.

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The image features a religious painting depicting a woman holding a child. She is standing in a garden with a green mantle. She stands with her hands in a prayer position, gazing upwards. The background includes a blue sky with clouds and trees, along with some architectural elements, enhancing the serene and spiritual atmosphere of the scene.

The image depicts a marble bust of an older man with a prominent beard and long hair. He is shown from the chest up, wearing a robe. His eyes are closed, suggesting a state of wisdom or contemplation. The bust is set against a plain, light-colored background, highlighting the subject's features as a historical or philosophical figure, emphasizing realism in its details and texture.

The image features a serene canal scene in a historic city, likely Venice. On the left, a yellow building with arched windows looks out onto the water. The water is calm, reflecting the surrounding architecture. Small boats are moored along the canal's edge. On the right, another building with a tiled roof is visible. The sky above is partly cloudy, creating a peaceful atmosphere. The scene captures the beauty and tranquility of Venice.

The image depicts a panoramic view of Florence, Italy, showcasing its iconic architecture under a cloudy sky at sunset. The Arno River winds through the city, with numerous bridges spanning its width. The background shows the historic buildings of the city, including the dome of Santa Maria del Fiore. The landscape is filled with the warm glow of streetlights and reflections on the water, creating a picturesque setting. A few boats are moored along the canal, adding to the overall charm of the scene.

The image depicts a bustling plaza in Venice, featuring the iconic St. Mark's Basilica with its elaborate architecture and golden dome. The square is filled with people, including a man in a red jacket who is taking a selfie with his dog. The scene captures the vibrant atmosphere of the city, with the叹息桥 (Sighs Bridge) visible in the background.

The image features a group of people gathered outdoors, likely at an event or festival. They are all wearing red shirts, possibly indicating they are part of a team or organization. Some individuals are holding small flags or banners. The background is a bright, sunny day with other people visible in the distance.

The image depicts a large, classical marble sculpture of a woman, likely representing an artist or Muse, holding a brush and palette. She is standing in a dynamic pose, with one arm raised. The background features a bridge over a canal, with a person walking across it. The scene is set against a backdrop of architectural details and a clear sky.

The image depicts the iconic Rialto Bridge in Venice, Italy, spanning across a canal. The bridge features a distinctive white stone archway supported by four tall, white striped poles. It is a popular tourist attraction, with many people walking on top. Below, a gondola glides through the transparent water, and the surrounding buildings, including the Doge's Palace, are visible. The bridge's unique design and the surrounding architecture create a beautiful scene.

The image depicts a man seated outdoors at a café or restaurant near a waterfront. He has a bald head and a light beard, wearing a gray t-shirt with the phrase "SAFETY THIRD" printed on it. Resting on his lap is a small, light tan and white Chihuahua dog with large ears and a collar. The setting is sunny, with palm trees and large umbrellas in the background, suggesting a tropical or resort-like atmosphere. The overall mood appears relaxed and casual.

The image depicts a bustling plaza in Venice, featuring the iconic St. Mark's Basilica with its elaborate architecture, domes, and ornate detailing. Surrounding the basilica are numerous visitors and tourists, enjoying the historic ambience. In the foreground, people are gathered, some taking photos, while the clear blue sky provides a bright backdrop. The ornate façade of the basilica is highlighted alongside the Doge's Palace, showcasing intricate patterns and arches. Scaffolding suggests ongoing restoration or maintenance. The scene captures the vibrant atmosphere of one of Venice's most famous landmarks.

The image features a man with a beard wearing a red and black checkered flannel shirt. He is taking a selfie with a small dog, likely a Chihuahua, sitting beside him. The dog is wearing a red jacket with black accents and has a curious expression. The background shows a restaurant or café setting, with brick walls and double doors leading outside. There are dim lights and wooden beams, creating a cozy atmosphere. The man appears to be enjoying the moment with his pet.

The image shows a man wearing a light blue unicorn onesie with a horn and colorful ears, holding a small dog. The dog is dressed in a bright blue sweater with a matching hat featuring a small crown. The background features a dark green wall and a painting of a gesso, adding a cozy indoor setting. The atmosphere appears playful and whimsical, highlighting the matching outfits of the man and his pet.