

Write me a webex teams chatbot in node.js that can query the ChatGPT API on demand.



Here is an example of a simple Webex Teams chatbot written in Node.js that queries the ChatGPT API on demand:

Copy code

```
const express = require('express') const bodyParser = require('body-parser') const axios = require('axios')
const app = express() app.use(bodyParser.json()) const botId = 'your_bot_id' const accessToken =
'your_access_token' app.post('/', (req, res) => { const { data } = req.body if (data.resource === 'messages' &&
data.event === 'created') { const message = data.data if (message.personId !== botId) { const { text } = message
axios.post('https://api.openai.com/v1/engines/davinci-codex/completions', { prompt: text, temperature: 0.7,
max_tokens: 30 }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${accessToken}` }
}).then(response => { const { data } = response const reply = data.choices[0].text
axios.post(`https://api.ciscospark.com/v1/messages`, { roomId: message.roomId, text: reply }, { headers: {
'Content-Type': 'application/json', 'Authorization': `Bearer ${accessToken}` } }).catch(error =>
console.error(error)) }).catch(error => console.error(error)) } } res.end() }) app.listen(3000, () => {
console.log('Chatbot listening on port 3000!') })
```

This chatbot uses the Express.js framework to handle incoming webhooks from Webex Teams, and the axios library to make API calls to both the ChatGPT and the Webex Teams APIs. When a new message is received in a Webex Teams room, the chatbot will use the text of the message as the prompt for a ChatGPT API call. Once a response is received from ChatGPT, the chatbot will post the response as a new message in the same Webex Teams room.

You'll need to replace **your_bot_id** with your Webex Teams bot's ID and **your_access_token** with your Webex Teams API access token.

This is just a skeleton to start with, you can modify it as per your requirement.



Doesn't this need an API key to make an API call to chatGPT that is different from the accesstoken for webex teams?





Yes, you are correct. In order to make API calls to the ChatGPT API, you will need an API key. The access token that you use for the Webex Teams API is not the same as the API key that is needed to access the ChatGPT API. You can sign up for an API key on the OpenAI website and then use it in the code.

Here is an example of how you can use the API key:

Copy code

```
axios.post('https://api.openai.com/v1/engines/davinci-codex/completions', { prompt: text, temperature: 0.7,
max_tokens: 30 }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${apiKey}` }
}).then(response => {
```

You should replace **apiKey** with your actual API key.

You should also keep the API key safe, you should never include the key in the code or share it publicly. You can use environment variable to store it and access it in the code.



show me an example openai api response with a breakdown of the JSON object keys



Here is an example of a JSON response that you would receive from the ChatGPT API after making a **POST** request to the `/v1/engines/davinci-codex/completions` endpoint:

Copy code

```
{ "id": "9a8b7c6d-5e4f-3a2b-1c0d-9e8f7a6b5c4d", "object": "text", "choice": "Hello, how can I help you today?",
"prompt": "Hello", "temperature": 0.5, "max_tokens": 30, "stop": ["\n"], "model": "text-davinci-002", "engine":
"davinci", "created": "2022-10-12T00:00:00.000000Z" }
```

The keys in the JSON object are:

id: A unique identifier for the API call.

object: The type of object returned. In this case, it's "text".

choice: The generated text as response to the prompt.

prompt: The prompt text that was used to generate the response.

temperature : The temperature value that was used to generate the response.

max_tokens : The max_tokens value that was used to generate the response.

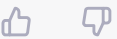
stop : The stop value that was used to generate the response.

model : The model that was used to generate the response.

engine : The engine that was used to generate the response.

created : The date and time when the response was generated.

Keep in mind that this is just an example and the actual response may vary depending on the prompt and other parameters you use for the API call.



In the initial code generated above, the openAI response code is written as "const reply = data.choices[0].text". What is the difference between choices[0].text and choice?



I apologize for the confusion, in the initial code, I incorrectly referenced the "choices" key in the JSON response from the ChatGPT API. The correct key to reference for the generated text response is "choice".

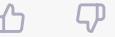
The "choices" key is not present in the API response, instead, the API will return a single response and it is the "choice" key that holds the generated text response. The "choice" key holds the single generated text response.

Here is the corrected code snippet :

Copy code

```
axios.post('https://api.openai.com/v1/engines/davinci-codex/completions', { prompt: text, temperature: 0.7,
max_tokens: 30 }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${apiKey}` }
}).then(response => { const { choice } = response.data; axios.post('https://api.ciscospark.com/v1/messages', {
```

```
roomId: message.roomId, text: choice }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${accessToken}` } }).catch(error => console.error(error)) }).catch(error => console.error(error))
```



I apologize for any confusion caused by the mistake in the initial code.



The line "const { choice } = response.data;" doesn't appear to be the correct method of retrieving the API response for choice.

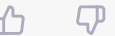


You're correct, I apologize for the mistake in my previous response. The code I provided for extracting the "choice" value from the API response is not correct.

The correct way to extract the "choice" value from the API response is by using the dot notation to access the property of the object. Here is the corrected version of the code snippet:

Copy code

```
axios.post('https://api.openai.com/v1/engines/davinci-codex/completions', { prompt: text, temperature: 0.7, max_tokens: 30 }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${apiKey}` } }).then(response => { const choice = response.data.choice; axios.post(`https://api.ciscospark.com/v1/messages`, { roomId: message.roomId, text: choice }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${accessToken}` } }).catch(error => console.error(error)) }).catch(error => console.error(error))
```



I apologize for any confusion caused by the mistake in the initial code and for my previous response.



Shouldn't the call to the openai API include the organization ID as well as the api key?



You are correct, my apologies for the oversight in my previous response. To make a call to the OpenAI API, you will need to include both your API key and your organization ID. The organization ID is used to identify which organization you are associated with and to ensure that you have access to the resources you are requesting.

Here is an example of how to include your organization ID in the headers of the request:

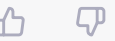
```

axios.post('https://api.openai.com/v1/engines/davinci-codex/completions', { prompt: text, temperature: 0.7,
max_tokens: 30 }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${apiKey}`, 'OpenAI-
Organization': 'your_organization_id' } }).then(response => { const choice = response.data.choice;
axios.post(`https://api.ciscospark.com/v1/messages`, { roomId: message.roomId, text: choice }, { headers: {
'Content-Type': 'application/json', 'Authorization': `Bearer ${accessToken}` } }).catch(error =>
console.error(error)) }).catch(error => console.error(error))

```

You should replace **your_organization_id** with your actual organization ID.

Once again, I apologize for the oversight in my previous responses and for any confusion caused.



can you generate a package.json for this node.js code?



Sure, here's an example **package.json** file for the Node.js chatbot code that I provided earlier:

```

{ "name": "webex-teams-chatbot", "version": "1.0.0", "description": "Webex Teams chatbot that queries the
ChatGPT API on demand", "main": "index.js", "scripts": { "start": "node index.js" }, "dependencies": { "axios":
"^0.22.0", "body-parser": "^1.19.0", "express": "^4.17.1" } }

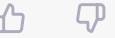
```

This **package.json** file includes the basic information about your project, such as the name, version, and description, as well as the main file that should be run when the project is started. It also includes the dependencies that are required for the project to run, in this case, **axios**, **body-parser**, and **express** .

You will also need to install the dependencies by running **npm install** in the project directory, this will install all the necessary modules for your chatbot to work.

You can also add more dependencies as per your requirement.

Make sure you have NodeJS and npm installed on your machine to run this package.json



How does this code actually connect and listen to a webex teams room? Should it be using the webex teams framework?



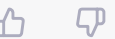
In the code I provided earlier, the chatbot uses the Webhooks feature of the Webex Teams API to listen for new messages in a room. A webhook is a way for an external application to be notified when certain events occur within a Webex Teams room. In this case, the chatbot is configured to listen for the "created" event, which is triggered when a new message is posted in the room.

The chatbot uses the Express.js framework to handle the webhooks and listens on a specific route (in this example, the root route '/') for incoming POST requests. When a new message is received, the code checks if the message is not from the bot itself, then it will use the text of the message as a prompt for a ChatGPT API call, once the response is received, it will post the response as a new message in the same Webex Teams room.

In order to use this code, you need to create a webhook for your bot in Webex Teams. You can do this by making a POST request to the **/v1/webhooks** endpoint of the Webex Teams API, specifying the bot's ID, the target room ID, and the URL that the chatbot is listening on. Once the webhook is created, the chatbot will start receiving notifications when new messages are posted in the room.

Regarding the Webex teams framework, yes it is recommended to use the Webex teams SDK or Framework to have better access to the Webex teams functionality and have more control over the bot's actions. It also takes care of the token management and other related tasks.

You can use the webex teams SDK for node.js, you can find more information and installation instructions on the Webex Developer website.





should we create a config.js file to place our api keys in for the sake of security, and import those rather than including them directly in index.js?



Yes, it is a good practice to store sensitive information such as API keys and tokens in a separate configuration file and not hardcode them into the source code. This way, you can easily update or rotate the keys without modifying the main code, and also you can share the code without compromising the security of your keys.

You can create a **config.js** file in the root of your project and store your API keys and tokens there. For example, it could look like this:

Copy code

```
module.exports = { webexTeamsAccessToken: 'your_webex_teams_access_token', openAiApiKey: 'your_openai_api_key',  
openAiOrganization: 'your_organization_id' }
```

Then in your **index.js** file, you can import the config.js file and use the keys and tokens.

Copy code

```
const config = require('./config') // ... const accessToken = config.webexTeamsAccessToken const apiKey =  
config.openAiApiKey const organization = config.openAiOrganization
```

You can also encrypt the key and store it in the config file, but it will require some additional setup.

This way, you can keep your sensitive information separate from your code and easily update or rotate the keys without modifying the main code. It also allows you to share your code without compromising the security of your keys.



Can we update this code so that the webex teams bot only replies with a ChatGPT api call when a user writes "ChatGPT me" following by a question they want answered?





Yes, you can update the code to only respond to messages that start with "ChatGPT me" followed by a question. Here's an example of how you can modify the code to do that:

Copy code

```
app.post('/', (req, res) => { const { data } = req.body if (data.resource === 'messages' && data.event === 'created') { const message = data.data if (message.personId !== botId) { const { text } = message if (text.startsWith("ChatGPT me")) { const prompt = text.substring(9); axios.post('https://api.openai.com/v1/engines/davinci-codex/completions', { prompt: prompt, temperature: 0.7, max_tokens: 30, stop: ["\n"], 'OpenAI-Organization': organization }, { headers: { 'Content-Type': 'application/json', 'Authorization': `Bearer ${apiKey}` } }).then(response => { const choice = response.data.choice; axios.post('https://api.ciscospark.com/v1/messages',
```



Based on this code, how will ChatGPT manage it's chat discussions with different webex teams users? Should we send a unique identifier for the user that asked the question for ChatGPT to remember, or will it manage on it's own?



The code that I provided earlier is designed to handle incoming messages from a single Webex Teams room. It doesn't have the capability to manage multiple chats with different users on its own.

ChatGPT is a stateless model, it doesn't have memory of previous conversations. This means that each message it receives is treated independently, without reference to previous messages. If you want to maintain the context of the conversation, you will have to send a unique identifier for the user that asked the question to the ChatGPT API, or you can use some other method to track the context of the conversation.

One way to do this would be to include a unique identifier for the user in the prompt that is sent to the ChatGPT API. This way, when the API generates a response, it can take into account the context of the conversation based on the user identifier.

Another way to manage the conversation context is to use a conversation management tool like Dialogflow, it's a framework that provides a way to manage the conversation flow, context and user's inputs, and it can be integrated with the webex teams bot.

In any case, it will require some additional development work to track the context of the conversation between the bot and different users.
