

Vector Databases: An Introduction

Cheatsheet: Vector Databases: An Introduction

Chroma Vector Database Terminology	Description	Code Example
npm i chromadb	Use this terminology to install 'chromadb' to work in a Node.js environment.	<pre>npm install chromadb</pre>
Require chromadb	To work in Node.js you must require 'chromadb' as this software is a third-party module. You can perform this task by using the required keyword.	<pre>const { ChromaClient } = require('chromadb');</pre>
Require chromadb	To work in Node.js you must import 'chromadb' and 'ChromaClient' class from the module named 'chromadb'. You installed 'chromadb' first because 'chromadb' is a third-party module that contains functions related to a Chroma database or service.	<pre>const { ChromaClient } = require('chromadb');</pre>
Instance of ChromaClient	Use this code to create a new object based on the 'ChromaClient' class, which you will use to interact with the 'ChromaClient' class functions.	<pre>const client = new ChromaClient();</pre>
Get or Create Collection	Use 'getOrCreateCollection' to create a collection or to interact with a database that has a collection with a specific name.	<pre>await client.getOrCreateCollection({ name: "my_basic_collection"});</pre>
Add Data in Collection	Use the 'add()' method to insert a new item into a collection.	<pre>await collection.add();</pre>
Get Data from Collection	Use the 'get()' method to retrieve all the items or data that were inserted into collection using 'add()' method.	<pre>collection.get();</pre>
Require DefaultEmbeddingFunction	The 'DefaultEmbeddingFunction' is a class from the 'chromadb' module used to create vector embeddings for data stored in collections	<pre>const { ChromaClient, DefaultEmbeddingFunction } = require('chromadb');</pre>
Create Instance of DefaultEmbeddingFunction	Use this code to create a new object based on the 'DefaultEmbeddingFunction' class. You can then use this code to interact with the functionalities provided by the 'DefaultEmbeddingFunction' class to create vector embeddings.	<pre>const default_emb = new DefaultEmbeddingFunction();</pre>
Generate Vector Embeddings	Use the 'generate()' method of a 'default_emb' instance to create vector embeddings for data that stored in a Chroma database.	<pre>const embeddingsData = await default_emb.generate(texts);</pre>
Performs a Query on the Collection	This query uses the collection named 'collectionName' for documents similar to the query term 'queryTerm', to retrieve the top three results. The query returns an object containing information about these results, such as document IDs and similarity scores. The results variable stores this object for further processing.	<pre>const queryTerm = "apple"; const results = await collection.query({ collection: collectionName, queryTexts: [queryTerm], n: 3 });</pre>



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