

```
!pip install langchain_groq langchain_core langchain_community
```

```
Collecting langchain_groq
  Downloading langchain_groq-0.3.2-py3-none-any.whl.metadata (2.6 kB)
Requirement already satisfied: langchain_core in /usr/local/lib/python3.11/dist-packages (0.3.59)
Collecting langchain_community
  Downloading langchain_community-0.3.24-py3-none-any.whl.metadata (2.5 kB)
Collecting groq<1,>=0.4.1 (from langchain_groq)
  Downloading groq-0.25.0-py3-none-any.whl.metadata (15 kB)
Requirement already satisfied: langsmith<0.4,>=0.1.125 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (0.3.42)
Requirement already satisfied: tenacity!=8.4.0,<10.0.0,>=8.1.0 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (8.3.0)
Requirement already satisfied: jsonpatch<2.0,>=1.33 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (1.33)
Requirement already satisfied: PyYAML>=5.3 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (6.0.2)
Requirement already satisfied: packaging<25,>=23.2 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (24.2)
Requirement already satisfied: typing-extensions>=4.7 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (4.13.2)
Requirement already satisfied: pydantic<3.0.0,>=2.5.2 in /usr/local/lib/python3.11/dist-packages (from langchain_core) (2.11.4)
Requirement already satisfied: langchain<1.0.0,>=0.3.25 in /usr/local/lib/python3.11/dist-packages (from langchain_community) (0.3.11)
Requirement already satisfied: SQLAlchemy<3,>=1.4 in /usr/local/lib/python3.11/dist-packages (from langchain_community) (2.0.40)
Requirement already satisfied: requests<3,>=2 in /usr/local/lib/python3.11/dist-packages (from langchain_community) (2.32.3)
Requirement already satisfied: aiohttp<4.0.0,>=3.8.3 in /usr/local/lib/python3.11/dist-packages (from langchain_community) (3.11.10)
Collecting dataclasses-json<0.7,>=0.5.7 (from langchain_community)
  Downloading dataclasses_json-0.6.7-py3-none-any.whl.metadata (25 kB)
Collecting pydantic-settings<3.0.0,>=2.4.0 (from langchain_community)
  Downloading pydantic_settings-2.9.1-py3-none-any.whl.metadata (3.8 kB)
Collecting httpx-sse<1.0.0,>=0.4.0 (from langchain_community)
  Downloading httpx_sse-0.4.0-py3-none-any.whl.metadata (9.0 kB)
Requirement already satisfied: numpy>=1.26.2 in /usr/local/lib/python3.11/dist-packages (from langchain_community) (2.0.2)
Requirement already satisfied: aiohappyeyeballs>=2.3.0 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (2.4.4)
Requirement already satisfied: aiosignal>=1.1.2 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (1.3.1)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (25.1.0)
Requirement already satisfied: frozenlist>=1.1.1 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (6.1.0)
Requirement already satisfied: propcache>=0.2.0 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (0.2.0)
Requirement already satisfied: yarl<2.0,>=1.17.0 in /usr/local/lib/python3.11/dist-packages (from aiohttp<4.0.0,>=3.8.3->langchain_community) (1.17.0)
Collecting marshmallow<4.0.0,>=3.18.0 (from dataclasses-json<0.7,>=0.5.7->langchain_community)
  Downloading marshmallow-3.26.1-py3-none-any.whl.metadata (7.3 kB)
Collecting typing-inspect<1,>=0.4.0 (from dataclasses-json<0.7,>=0.5.7->langchain_community)
  Downloading typing_inspect-0.9.0-py3-none-any.whl.metadata (1.5 kB)
Requirement already satisfied: anyio<5,>=3.5.0 in /usr/local/lib/python3.11/dist-packages (from groq<1,>=0.4.1->langchain_groq) (4.6.2)
Requirement already satisfied: distro<2,>=1.7.0 in /usr/local/lib/python3.11/dist-packages (from groq<1,>=0.4.1->langchain_groq) (1.9.0)
Requirement already satisfied: httpx<1,>=0.23.0 in /usr/local/lib/python3.11/dist-packages (from groq<1,>=0.4.1->langchain_groq) (0.27.2)
Requirement already satisfied: sniffio in /usr/local/lib/python3.11/dist-packages (from groq<1,>=0.4.1->langchain_groq) (1.3.1)
Requirement already satisfied: jsonpointer>=1.9 in /usr/local/lib/python3.11/dist-packages (from jsonpatch<2.0,>=1.33->langchain_core) (2.5.0)
Requirement already satisfied: langchain-text-splitters<1.0.0,>=0.3.8 in /usr/local/lib/python3.11/dist-packages (from langchain_community) (0.3.10)
Requirement already satisfied: orjson<4.0.0,>=3.9.14 in /usr/local/lib/python3.11/dist-packages (from langsmith<0.4,>=0.1.125->langchain_core) (3.10.15)
Requirement already satisfied: requests-toolbelt<2.0.0,>=1.0.0 in /usr/local/lib/python3.11/dist-packages (from langsmith<0.4,>=0.1.125->langchain_core) (1.0.0)
Requirement already satisfied: zstandard<0.24.0,>=0.23.0 in /usr/local/lib/python3.11/dist-packages (from langsmith<0.4,>=0.1.125->langchain_core) (0.23.0)
Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.11/dist-packages (from pydantic<3.0.0,>=2.5.2->langchain_core) (0.7.0)
Requirement already satisfied: pydantic-core==2.33.2 in /usr/local/lib/python3.11/dist-packages (from pydantic<3.0.0,>=2.5.2->langchain_core) (2.33.2)
Requirement already satisfied: typing-inspection>=0.4.0 in /usr/local/lib/python3.11/dist-packages (from pydantic<3.0.0,>=2.5.2->langchain_core) (0.4.0)
Collecting python-dotenv>=0.21.0 (from pydantic-settings<3.0.0,>=2.4.0->langchain_community)
  Downloading python_dotenv-1.1.0-py3-none-any.whl.metadata (24 kB)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests<3,>=2->langchain_core) (3.4.0)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.11/dist-packages (from requests<3,>=2->langchain_community) (3.10.1)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests<3,>=2->langchain_community) (2.2.3)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.11/dist-packages (from requests<3,>=2->langchain_community) (2025.1.1)
Requirement already satisfied: greenlet>=1 in /usr/local/lib/python3.11/dist-packages (from SQLAlchemy<3,>=1.4->langchain_community) (3.1.1)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.11/dist-packages (from httpx<1,>=0.23.0->groq<1,>=0.4.1->langchain_groq) (1.0.7)
Requirement already satisfied: h11>=0.16 in /usr/local/lib/python3.11/dist-packages (from httpcore==1.*->httpx<1,>=0.23.0->groq<1,>=0.4.1->langchain_groq) (0.14.0)
```

```
from langchain_groq import ChatGroq
llm = ChatGroq(
    temperature=0,
    groq_api_key = "gsk_1W2wBxxDGgzwBj0XT0d2WGdyb3FY9XoBmVyEQKa7sM5aTdLLMwg",
    model_name = "llama-3.3-70b-versatile"
)
```

```
result = llm.invoke("who is Lord Ram?")
print(result.content)
```

Lord Rama is a major deity in Hinduism and is considered one of the most important figures in Hindu mythology. He is the seventh avatar of the Hindu god Vishnu. According to the Hindu epic, the Ramayana, Lord Rama was a king of Ayodhya, a city in ancient India. He was born to King Dasharatha and Queen Kausalya. The story of Lord Rama is as follows:

- * Lord Rama was exiled to the forest for 14 years by his stepmother, Queen Kaikeyi, who wanted her own son, Bharata, to become the king.
- * During his exile, Lord Rama's wife, Sita, was abducted by the demon king Ravana, who took her to his kingdom in Lanka (modern-day Sri Lanka).
- * Lord Rama, along with his brother Lakshmana and the monkey god Hanuman, embarked on a journey to rescue Sita and defeat Ravana.
- * After a long and arduous battle, Lord Rama defeated Ravana and rescued Sita, returning to Ayodhya to reclaim his throne.

Lord Rama is revered for his many virtues, including:

- * His unwavering commitment to duty (dharma) and righteousness
- * His unshakeable loyalty to his family and friends
- * His bravery and selflessness in the face of adversity

* His compassion and kindness towards all living beings

In Hinduism, Lord Rama is considered a role model for all individuals, and his story is seen as a guide for living a virtuous and me

Some of the key teachings associated with Lord Rama include:

- * The importance of following one's duty (dharma) and living a life of righteousness
- * The value of loyalty, compassion, and selflessness
- * The need to cultivate courage, perseverance, and determination in the face of adversity
- * The importance of respecting and honoring one's family, friends, and community

Overall, Lord Rama is a beloved and revered figure in Hinduism, and his story continues to inspire and guide millions of people aro

!pip install PyPdf



Collecting PyPdf

Downloading pypdf-5.5.0-py3-none-any.whl.metadata (7.2 kB)

Downloading pypdf-5.5.0-py3-none-any.whl (303 kB)

303.4/303.4 kB 4.5 MB/s eta 0:00:00

Installing collected packages: PyPdf

Successfully installed PyPdf-5.5.0

!pip install chromadb



Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.11/dist-packages (from httpx==0.27.0->chromadb) (1.0.9) ▲
Requirement already satisfied: idna in /usr/local/lib/python3.11/dist-packages (from httpx==0.27.0->chromadb) (3.10)
Requirement already satisfied: h11>=0.16 in /usr/local/lib/python3.11/dist-packages (from httpcore==1.*->httpx==0.27.0->chromadb)
Requirement already satisfied: attrs>=22.2.0 in /usr/local/lib/python3.11/dist-packages (from jsonschema>=4.19.0->chromadb) (25.3)
Requirement already satisfied: jsonschema-specifications>=2023.03.6 in /usr/local/lib/python3.11/dist-packages (from jsonschema>=4.19.0->chromadb)
Requirement already satisfied: referencing>=0.28.4 in /usr/local/lib/python3.11/dist-packages (from jsonschema>=4.19.0->chromadb)
Requirement already satisfied: rpds-py>=0.7.1 in /usr/local/lib/python3.11/dist-packages (from jsonschema>=4.19.0->chromadb) (0.2)
Requirement already satisfied: six>=1.9.0 in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (1.17.0)
Requirement already satisfied: python-dateutil>=2.5.3 in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (2.8.0)
Requirement already satisfied: google-auth>=1.0.1 in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb)
Requirement already satisfied: websocket-client!=0.40.0,!0.41.*,!0.42.*,>=0.32.0 in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (1.7.0)
Requirement already satisfied: requests in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (2.32.3)
Requirement already satisfied: requests-oauthlib in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (1.3.1)
Requirement already satisfied: oauthlib>=3.2.2 in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (3.2.2)
Requirement already satisfied: urllib3>=1.24.2 in /usr/local/lib/python3.11/dist-packages (from kubernetes>=28.1.0->chromadb) (2.0.7)
Requirement already satisfied: durationpy>=0.7 in /usr/local/lib/python3.11/dist-packages (from onnxruntime>=1.14.1->chromadb) (0.10.0)
Requirement already satisfied: coloredlogs in /usr/local/lib/python3.11/dist-packages (from onnxruntime>=1.14.1->chromadb) (15.0.1)
Requirement already satisfied: flatbuffers in /usr/local/lib/python3.11/dist-packages (from onnxruntime>=1.14.1->chromadb) (25.2.1)
Requirement already satisfied: protobuf in /usr/local/lib/python3.11/dist-packages (from onnxruntime>=1.14.1->chromadb) (5.29.4)
Requirement already satisfied: sympy in /usr/local/lib/python3.11/dist-packages (from onnxruntime>=1.14.1->chromadb) (1.13.1)
Requirement already satisfied: deprecated>=1.2.6 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-api>=1.2.0->chromadb)
Requirement already satisfied: importlib-metadata<8.7.0,>=6.0 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-api>=1.2.0->chromadb)
Requirement already satisfied: googleapis-common-protos==1.52 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-exporter-otlp-proto-common==1.33.1->chromadb)
Requirement already satisfied: opentelemetry-exporter-otlp-proto-common==1.33.1 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-exporter-otlp-proto-grpc==1.33.1->chromadb)
Requirement already satisfied: opentelemetry-protocol==1.33.1 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-exporter-otlp-proto-grpc==1.33.1->chromadb)
Requirement already satisfied: opentelemetry-instrumentation-asgi==0.54b1 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-instrumentation==0.54b1->chromadb)
Requirement already satisfied: opentelemetry-instrumentation==0.54b1 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-instrumentation-asgi==0.54b1->chromadb)
Requirement already satisfied: opentelemetry-semantic-conventions==0.54b1 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-instrumentation==0.54b1->chromadb)
Requirement already satisfied: opentelemetry-util-http==0.54b1 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-instrumentation==0.54b1->chromadb)
Requirement already satisfied: wrapt>=2.0.0,>=1.0.0 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-instrumentation==0.54b1->chromadb)
Requirement already satisfied: asgiref~>3.0 in /usr/local/lib/python3.11/dist-packages (from opentelemetry-instrumentation-asgi==0.54b1->chromadb)
Requirement already satisfied: backoff>=1.10.0 in /usr/local/lib/python3.11/dist-packages (from posthog>=2.4.0->chromadb) (2.2.1)
Requirement already satisfied: distro>=1.5.0 in /usr/local/lib/python3.11/dist-packages (from posthog>=2.4.0->chromadb) (1.9.0)
Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.11/dist-packages (from pydantic>=1.9->chromadb) (0.6.0)
Requirement already satisfied: pydantic-core==2.33.2 in /usr/local/lib/python3.11/dist-packages (from pydantic>=1.9->chromadb) (2.33.2)
Requirement already satisfied: typing-inspection>=0.4.0 in /usr/local/lib/python3.11/dist-packages (from pydantic>=1.9->chromadb) (0.4.0)
Requirement already satisfied: markdown-it-py>=2.2.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->chromadb) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->chromadb) (2.18.0)
Requirement already satisfied: huggingface-hub<1.0,>=0.16.4 in /usr/local/lib/python3.11/dist-packages (from tokenizers>=0.13.2->chromadb)
Requirement already satisfied: click>=8.0.0 in /usr/local/lib/python3.11/dist-packages (from typer>=0.9.0->chromadb) (8.2.0)
Requirement already satisfied: shellingham>=1.3.0 in /usr/local/lib/python3.11/dist-packages (from typer>=0.9.0->chromadb) (1.5.4)
Requirement already satisfied: httptools>=0.6.3 in /usr/local/lib/python3.11/dist-packages (from uvicorn[standard]>=0.18.3->chromadb)
Requirement already satisfied: python-dotenv>=0.13 in /usr/local/lib/python3.11/dist-packages (from uvicorn[standard]>=0.18.3->chromadb)
Requirement already satisfied: uvloop!=0.15.0,!0.15.1,>=0.14.0 in /usr/local/lib/python3.11/dist-packages (from uvicorn[standard]>=0.18.3->chromadb)
Requirement already satisfied: watchfiles>=0.13 in /usr/local/lib/python3.11/dist-packages (from uvicorn[standard]>=0.18.3->chromadb)
Requirement already satisfied: websockets>=10.4 in /usr/local/lib/python3.11/dist-packages (from uvicorn[standard]>=0.18.3->chromadb)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in /usr/local/lib/python3.11/dist-packages (from google-auth>=1.0.1->kubernetes>=28.1.0->chromadb)
Requirement already satisfied: pyasn1-modules>=0.2.1 in /usr/local/lib/python3.11/dist-packages (from google-auth>=1.0.1->kubernetes>=28.1.0->chromadb)
Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.11/dist-packages (from google-auth>=1.0.1->kubernetes>=28.1.0->chromadb)
Requirement already satisfied: filelock in /usr/local/lib/python3.11/dist-packages (from huggingface-hub<1.0,>=0.16.4->tokenizers>=0.13.2->chromadb)
Requirement already satisfied: fsspec>=2023.5.0 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub<1.0,>=0.16.4->tokenizers>=0.13.2->chromadb)
Requirement already satisfied: zipp>=3.20 in /usr/local/lib/python3.11/dist-packages (from importlib-metadata<8.7.0,>=6.0->chromadb)
Requirement already satisfied: mdurl~>0.1 in /usr/local/lib/python3.11/dist-packages (from markdown-it-py>=2.2.0->rich>=10.11.0->chromadb)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests>=28.1.0->kubernetes>=28.1.0->chromadb)
Requirement already satisfied: sniffio>=1.1 in /usr/local/lib/python3.11/dist-packages (from anyio>=3.7.0->httpx==0.27.0->chromadb) (1.3.0)
Requirement already satisfied: humanfriendly>=9.1 in /usr/local/lib/python3.11/dist-packages (from coloredlogs>=15.0.1->onnxruntime>=1.14.1->chromadb)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in /usr/local/lib/python3.11/dist-packages (from sympy>=1.13.1->onnxruntime>=1.14.1->chromadb)
Requirement already satisfied: numpy>=1.24.0 in /usr/local/lib/python3.11/dist-packages (from onnxruntime>=1.14.1->chromadb) (1.26.4)

!pip install gradio

```

Collecting pydub (from gradio)
  Downloading pydub-0.25.1-py2.py3-none-any.whl.metadata (1.4 kB)
Collecting python-multipart>=0.0.18 (from gradio)
  Downloading python_multipart-0.0.20-py3-none-any.whl.metadata (1.8 kB)
Requirement already satisfied: pyyaml<7.0,>=5.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (6.0.2)
Collecting ruff>=0.9.3 (from gradio)
  Downloading ruff-0.11.10-py3-none-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata (25 kB)
Collecting safehttpx<0.2.0,>=0.1.6 (from gradio)
  Downloading safehttpx-0.1.6-py3-none-any.whl.metadata (4.2 kB)
Collecting semantic-version~=2.0 (from gradio)
  Downloading semantic_version-2.10.0-py2.py3-none-any.whl.metadata (9.7 kB)
Requirement already satisfied: starlette<1.0,>=0.40.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (0.45.3)
Collecting tomlkit<0.14.0,>=0.12.0 (from gradio)
  Downloading tomlkit-0.13.2-py3-none-any.whl.metadata (2.7 kB)
Requirement already satisfied: typer<1.0,>=0.12 in /usr/local/lib/python3.11/dist-packages (from gradio) (0.15.3)
Requirement already satisfied: typing-extensions~=4.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (4.13.2)
Requirement already satisfied: uvicorn>=0.14.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (0.34.2)
Requirement already satisfied: fsspec in /usr/local/lib/python3.11/dist-packages (from gradio-client==1.10.1->gradio) (2025.3.2)
Requirement already satisfied: websockets<16.0,>=10.0 in /usr/local/lib/python3.11/dist-packages (from gradio-client==1.10.1->gradio) (13.1)
Requirement already satisfied: idna>=2.8 in /usr/local/lib/python3.11/dist-packages (from anyio<5.0,>=3.0->gradio) (3.10)
Requirement already satisfied: sniffio>=1.1 in /usr/local/lib/python3.11/dist-packages (from anyio<5.0,>=3.0->gradio) (1.3.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.11/dist-packages (from httpx>=0.24.1->gradio) (2025.4.26)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.11/dist-packages (from httpx>=0.24.1->gradio) (1.0.9)
Requirement already satisfied: h11>=0.16 in /usr/local/lib/python3.11/dist-packages (from httpcore==1.*->httpx>=0.24.1->gradio) (0.14.0)
Requirement already satisfied: filelock in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.28.1->gradio) (3.18.0)
Requirement already satisfied: requests in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.28.1->gradio) (2.32.3)
Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.28.1->gradio) (4.67.1)
Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/python3.11/dist-packages (from pandas<3.0,>=1.0->gradio) (2.9.0)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.11/dist-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
Requirement already satisfied: tzdata>=2022.7 in /usr/local/lib/python3.11/dist-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.11/dist-packages (from pydantic<2.12,>=2.0->gradio) (0.7.0)
Requirement already satisfied: pydantic-core==2.33.2 in /usr/local/lib/python3.11/dist-packages (from pydantic<2.12,>=2.0->gradio) (2.33.2)
Requirement already satisfied: typing-inspection>=0.4.0 in /usr/local/lib/python3.11/dist-packages (from pydantic<2.12,>=2.0->gradio) (0.4.0)
Requirement already satisfied: click>=8.0.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0,>=0.12->gradio) (8.2.0)
Requirement already satisfied: shellingham>=1.3.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0,>=0.12->gradio) (1.5.4)
Requirement already satisfied: rich>=10.11.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0,>=0.12->gradio) (13.9.4)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.11/dist-packages (from python-dateutil>=2.8.2->pandas<3.0,>=1.0) (1.17.0)
Requirement already satisfied: markdown-it-py>=2.2.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0,>=0.12) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0,>=0.12) (2.19.1)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests->huggingface-hub) (3.4.0)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests->huggingface-hub>=0.2) (2.3.0)
Requirement already satisfied: mdurl~=0.1 in /usr/local/lib/python3.11/dist-packages (from markdown-it-py>=2.2.0->rich>=10.11.0->typer<1.0,>=0.12) (0.1.2)
Downloading gradio-5.30.0-py3-none-any.whl (54.2 MB)
54.2/54.2 MB 14.5 MB/s eta 0:00:00
Downloading gradio_client-1.10.1-py3-none-any.whl (323 kB)
323.1/323.1 kB 20.4 MB/s eta 0:00:00
Downloading aiofiles-24.1.0-py3-none-any.whl (15 kB)
Downloading groovy-0.1.2-py3-none-any.whl (14 kB)
Downloading python_multipart-0.0.20-py3-none-any.whl (24 kB)
Downloading ruff-0.11.10-py3-none-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (11.6 MB)
11.6/11.6 MB 64.4 MB/s eta 0:00:00
Downloading safehttpx-0.1.6-py3-none-any.whl (8.7 kB)
Downloading semantic_version-2.10.0-py2.py3-none-any.whl (15 kB)
Downloading tomlkit-0.13.2-py3-none-any.whl (37 kB)
Downloading ffmpeg-0.5.0-py3-none-any.whl (6.0 kB)
Downloading pydub-0.25.1-py2.py3-none-any.whl (32 kB)
Installing collected packages: pydub, tomlkit, semantic-version, ruff, python-multipart, groovy, ffmpeg, aiofiles, safehttpx, grad
Successfully installed aiofiles-24.1.0 ffmpeg-0.5.0 gradio-5.30.0 gradio-client-1.10.1 groovy-0.1.2 pydub-0.25.1 python-multipart-

```

```

# Changed import statement to correct the module path
from langchain.embeddings import HuggingFaceEmbeddings
from langchain.document_loaders import PyPDFLoader, DirectoryLoader
from langchain.vectorstores import Chroma
from langchain.chains import RetrievalQA
from langchain.prompts import PromptTemplate
from langchain.text_splitter import RecursiveCharacterTextSplitter
import os # Import the os module
import gradio as gr

```

```

def initialize_llm():
    llm = ChatGroq(
        temperature=0,
        groq_api_key = "gsk_DkIuZabDhYo1PL9x4SPA WGdyb3FYQsN2APDDKeGXT7dRxhVvXggT",
        model_name = "llama-3.3-70b-versatile"
    )

    return llm

```

```

def create_vector_db():
    loader = DirectoryLoader("/content/data", glob = '*.pdf', loader_cls = PyPDFLoader)
    documents = loader.load()
    text_splitter = RecursiveCharacterTextSplitter(chunk_size = 500, chunk_overlap = 50)
    texts = text_splitter.split_documents(documents)
    embeddings = HuggingFaceEmbeddings(model_name = 'sentence-transformers/all-MiniLM-L6-v2')
    vector_db = Chroma.from_documents(texts, embeddings, persist_directory = './chroma_db')
    vector_db.persist()

```

```

print("ChromaDB created and data saved")

return vector_db

def setup_qa_chain(vector_db, llm):
    retriever = vector_db.as_retriever()
    prompt_templates = """ You are a compassionate mental health chatbot. Respond thoughtfully to the following question:
    {context}
    User: {question}
    Chatbot: """
    PROMPT = PromptTemplate(template = prompt_templates, input_variables = ['context', 'question'])

    qa_chain = RetrievalQA.from_chain_type(
        llm = llm,
        chain_type = 'stuff',
        retriever = retriever,
        return_source_documents = True,
        chain_type_kwargs = {'prompt': PROMPT}
    )
    return qa_chain

print("Initializing Chatbot.....")
llm = initialize_llm()

db_path = "/content/chroma_db"

if not os.path.exists(db_path):
    vector_db = create_vector_db()
else:
    embeddings = HuggingFaceEmbeddings(model_name = 'sentence-transformers/all-MiniLM-L6-v2')
    vector_db = Chroma(persist_directory = db_path, embedding_function = embeddings)

qa_chain = setup_qa_chain(vector_db, llm)

def chatbot_response(user_input):
    try:
        if not user_input.strip():
            return "Please provide a valid input"

        # Use invoke instead of run and access the result properly
        response = qa_chain.invoke({"query": user_input})

        # Return just the string result for Gradio
        if isinstance(response, dict) and 'result' in response:
            return response['result']
        else:
            return str(response)

    except Exception as e:
        return f"An error occurred: {str(e)}"

with gr.Blocks(theme = 'Respair/Shiki@1.2.1') as app:
    gr.Markdown("### Mental Health Chatbot")
    chatbot = gr.Chatbot()
    msg = gr.Textbox(label="Type your message here...")
    clear = gr.Button("Clear")

    def respond(message, chat_history):
        bot_message = chatbot_response(message)
        chat_history.append((message, bot_message))
        return "", chat_history

    msg.submit(respond, [msg, chatbot], [msg, chatbot])
    clear.click(lambda: None, None, chatbot, queue=False)

app.launch()

```

↻ Initializing Chatbot.....
<ipython-input-13-538a60519976>:84: UserWarning: You have not specified a value for the `type` parameter. Defaulting to the 'tuples'
chatbot = gr.Chatbot()
It looks like you are running Gradio on a hosted Jupyter notebook. For the Gradio app to work, sharing must be enabled. Automatic
Colab notebook detected. To show errors in colab notebook, set debug=True in launch()
* Running on public URL: <https://dd6888feaa16a74cd9.gradio.live>
This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `gradio deploy` from the terminal in the working

Mental Health Chatbot

Chatbot

Write your message here

create_vector_db()

↻ <ipython-input-7-68c756942ea4>:25: LangChainDeprecationWarning: The class `HuggingFaceEmbeddings` was deprecated in LangChain 0.2.2
embeddings = HuggingFaceEmbeddings(model_name = 'sentence-transformers/all-MiniLM-L6-v2')
/usr/local/lib/python3.11/dist-packages/huggingface_hub/utils/_auth.py:94: UserWarning:
The secret `HF_TOKEN` does not exist in your Colab secrets.
To authenticate with the Hugging Face Hub, create a token in your settings tab (<https://huggingface.co/settings/tokens>), set it as :
You will be able to reuse this secret in all of your notebooks.
Please note that authentication is recommended but still optional to access public models or datasets.
warnings.warn(
modules.json: 100% 349/349 [00:00<00:00, 23.0kB/s]
config_sentence_transformers.json: 100% 116/116 [00:00<00:00, 10.4kB/s]
README.md: 100% 10.5k/10.5k [00:00<00:00, 795kB/s]
sentence_bert_config.json: 100% 53.0/53.0 [00:00<00:00, 4.37kB/s]
config.json: 100% 612/612 [00:00<00:00, 44.2kB/s]
Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back to regular HTTP download. For better p
WARNING:huggingface_hub.file_download:Xet Storage is enabled for this repo, but the 'hf_xet' package is not installed. Falling back
model.safetensors: 100% 90.9M/90.9M [00:00<00:00, 122MB/s]
tokenizer_config.json: 100% 350/350 [00:00<00:00, 13.8kB/s]
vocab.txt: 100% 232k/232k [00:00<00:00, 5.87MB/s]
tokenizer.json: 100% 466k/466k [00:00<00:00, 7.85MB/s]
special_tokens_map.json: 100% 112/112 [00:00<00:00, 5.20kB/s]
config.json: 100% 190/190 [00:00<00:00, 16.3kB/s]
ChromaDB created and data saved
<ipython-input-7-68c756942ea4>:27: LangChainDeprecationWarning: Since Chroma 0.4.x the manual persistence method is no longer support
vector_db.persist()
<langchain_community.vectorstores.chroma.Chroma at 0x7edb68ffcd90>

```
def main():  
    print("Initializing Chatbot.....")  
    llm = initialize_llm()  
  
    db_path = "/content/chroma_db"  
  
    if not os.path.exists(db_path):  
        vector_db = create_vector_db()
```

```

else:
    embeddings = HuggingFaceEmbeddings(model_name = 'sentence-transformers/all-MiniLM-L6-v2')
    vector_db = Chroma(persist_directory = db_path, embedding_function = embeddings)

qa_chain = setup_qa_chain(vector_db, llm)

while True:
    query = input("\nHuman: ")
    if query.lower() == "exit":
        print("Chatbot: Take Care of yourself, Goodbye!")
        break
    # Changed from .run(query) to .invoke({"query": query}) and accessing the 'result' key
    response = qa_chain.invoke({"query": query})
    print(f"Chatbot: {response['result']}")

if __name__ == "__main__":
    main()

```

➡ Initializing Chatbot.....

Chatbot: Hello. It's nice to meet you. I see you've been reading about the concept of mental health, particularly in the context of

I'd like to acknowledge that these definitions are indeed incomplete, as you've noted, because they don't fully account for the impa

What are your thoughts on this topic? How do you think we can better understand and promote mental health, especially in children ar

Human: Exit

Chatbot: Take Care of yourself, Goodbye!

```

def chatbot_response(user_input):
    try:
        if not user_input.strip():
            return "Please provide a valid input"

        # Use invoke instead of run and access the result properly
        response = qa_chain.invoke({"query": user_input})

        # Return just the string result for Gradio
        if isinstance(response, dict) and 'result' in response:
            return response['result']
        else:
            return str(response)

    except Exception as e:
        return f"An error occurred: {str(e)}"


with gr.Blocks(theme = 'Respair/Shiki@1.2.1') as app:
    gr.Markdown("## Mental Health Chatbot")
    chatbot = gr.Chatbot()
    msg = gr.Textbox(label="Type your message here...")
    clear = gr.Button("Clear")

    def respond(message, chat_history):
        bot_message = chatbot_response(message)
        chat_history.append((message, bot_message))
        return "", chat_history


    msg.submit(respond, [msg, chatbot], [msg, chatbot])
    clear.click(lambda: None, None, chatbot, queue=False)

app.launch()

```

 <ipython-input-11-90f199fa118b>:20: UserWarning: You have not specified a value for the `type` parameter. Defaulting to the 'tuples' chatbot = gr.Chatbot()
It looks like you are running Gradio on a hosted Jupyter notebook. For the Gradio app to work, sharing must be enabled. Automatic Colab notebook detected. To show errors in colab notebook, set debug=True in launch()
* Running on public URL: <https://3dac2d6f9db5c7929a.gradio.live>
This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `gradio deploy` from the terminal in the working

Mental Health Chatbot

 Chatbot