Open in Colab

Faiss Vector Store

If you're opening this Notebook on colab, you will probably need to install LlamaIndex 🦙.

```
%pip install llama-index-vector-stores-faiss
```

```
!pip install llama-index
```

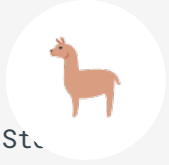
Creating a Faiss Index

```
import logging
import sys

logging.basicConfig(stream=sys.stdout, level=logging.INFO)
logging.getLogger().addHandler(logging.StreamHandler(stream=sys.st
```

```
import faiss

# dimensions of text-ada-embedding-002
d = 1536
faiss_index = faiss.IndexFlatL2(d)
```

Load documents, build the VectorStoreIndex

```
from llama_index.core import (
    SimpleDirectoryReader,
    load_index_from_storage,
    VectorStoreIndex,
    StorageContext,
)
from llama_index.vector_stores.faiss import FaissVectorSt
from IPython.display import Markdown, display
```



Download Data

```
!mkdir -p 'data/paul_graham/'
!wget 'https://raw.githubusercontent.com/run-llama/llama_index/
main/docs/docs/examples/data/paul_graham/paul_graham_essay.txt'
-O 'data/paul_graham/paul_graham_essay.txt'
```

```
# load documents
documents = SimpleDirectoryReader("./data/
paul_graham/").load_data()
```

```
vector_store = FaissVectorStore(faiss_index=faiss_index)
storage_context =
StorageContext.from_defaults(vector_store=vector_store)
index = VectorStoreIndex.from_documents(
    documents, storage_context=storage_context
)
```

```
# save index to disk
index.storage_context.persist()
```

```
# load index from disk
vector_store = FaissVectorStore.from_persist_dir("./storage")
storage_context = StorageContext.from_defaults(
    vector_store=vector_store, persist_dir="./storage"
)
index = load_index_from_storage(storage_context=storage_context)
```

Query Index

```
# set Logging to DEBUG for more detailed outputs
query_engine = index.as_query_engine()
response = query_engine.query("What did the author do growing
up?")
```

```
display(Markdown(f"<b>{response}</b>"))
```

```
# set Logging to DEBUG for more detailed outputs
query_engine = index.as_query_engine()
response = query_engine.query(
    "What did the author do after his time at Y Combinator?"
)
```

```
display(Markdown(f"<b>{response}</b>"))
```