KEYWORD AND SEMANTIC SEARCHES WITH RERANK

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If you should run the initial code you will get errors telling you to create a schema. But you don't know the structure of schema that fits your code. So using the Weaviate URL and API key as shown below helps you circumvent that issue.

```python
import os
from dotenv import load_dotenv, find_dotenv
_: bool = load_dotenv(find_dotenv()) # read local .env file


import cohere
co = cohere.Client(os.getenv('COHERE_API_KEY'))

import weaviate
auth_config = weaviate.auth.AuthApiKey(
    api_key=os.getenv('WEAVIATE_API_KEY'))

client = weaviate.Client(
    url="https://cohere-demo.weaviate.network/",
    auth_client_secret=auth_config,
    additional_headers={
        "X-Cohere-Api-Key": os.getenv('COHERE_API_KEY'),
    }
)
```

```
WEAVIATE_API_KEY='76320a90-53d8-42bc-b41d-678647c6672e'
```

```
melanie@Melanie:~$ cd Rerank
melanie@Melanie:~/Rerank$ python3 rerank.py
/home/melanie/.local/lib/python3.10/site-packages/weaviate/warnings.py:158: DeprecationWarning: Dep016: You are using th
e Weaviate v3 client, which is deprecated.
            Consider upgrading to the new and improved v4 client instead!
            See here for usage: https://weaviate.io/developers/weaviate/client-libraries/python

  warnings.warn(
Item 0: data


i:0
Monarchy of Canada
In his 1990 book, "Continental Divide: the Values and Institutions of the United States and Canada," Seymour Martin Lips
et argues that the presence of the monarchy in Canada helps distinguish Canadian identity from American identity. Since
at least the 1930s, supporters of the Crown have held the opinion that the Canadian monarch is also one of the rare unif
ied elements of Canadian society, focusing both "the historic consciousness of the nation" and various forms of patrioti
sm and national love "[on] the point around which coheres the nation's sense of a continuing personality". Former Govern
or General Vincent Massey articulated in 1967 that the monarchy "is part of ourselves. It is linked in a very special wa
y with our national life. It stands for qualities and institutions which mean Canada to every one of us and which for al
l our differences and all our variety have kept Canada Canadian." But, according to Arthur Bousfield and Gary Toffoli, C
anadians were, through the late 1960s to the 2000s, encouraged by the federal government to "neglect, ignore, forget, re
ject, debase, suppress, even hate, and certainly treat as foreign what their parents and grandparents, whether spiritual
 or blood, regarded as the basis of Canadian nationhood, autonomy, and history", including the monarchy. Former Governor
 General Roland Michener said in 1970 that anti-monarchists claimed the Canadian Crown is foreign and incompatible with
Canada's multicultural society, which the government promoted as a Canadian identifier, and Lawrence Martin called in 20
07 for Canada to become a republic in order to "re-brand the nation". However, Michener also stated, "[the monarchy] is
our own by inheritance and choice, and contributes much to our distinctive Canadian identity and our chances of independ
ent survival amongst the republics of North and South America." Journalist Christina Blizzard emphasized in 2009 that th
e monarchy "made [Canada] a haven of peace and justice for immigrants from around the world", while Michael Valpy conten
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Flag of Canada

By the Second World War, the Red Ensign was viewed as Canada's "de facto" national flag. A joint committee of the Senate and House of Commons was appointed on November 8, 1945, to recommend a national flag to officially adopt. It received 2,409 designs from the public and was addressed by the director of the Historical Section of the Canadian Army, Fortescue Duguid, who pointed out that red and white were Canada's official colours and there was already an emblem representing the country: three joined maple leaves seen on the escutcheon of the Canadian coat of arms. By May 9 the following year, the committee reported back with a recommendation "that the national flag of Canada should be the Canadian red ensign with a maple leaf in autumn golden colours in a bordered background of white". The Legislative Assembly of Quebec had urged the committee to not include any of what it deemed as "foreign symbols", including the Union Flag, and Mackenzie King, then still prime minister, declined to act on the report; fearing it may lead to political instability. As a result, the Union Flag was kept as a national flag, and the order to fly the Canadian Red Ensign at government buildings was maintained.

i:0
Monarchy of Canada
i:1
Early modern period
i:2
Flag of Canada
i:3
Flag of Canada
i:4
Prime Minister of Canada
i:5
Hamilton, Ontario
i:6
Liberal Party of Canada
i:7

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Prime Minister of Canada
i:498
Martin Short
i:499
Church of England
i:0
('id', 'bf84ed4b-4eeb-46d7-acab-ae981646b51c')

i:1
('results', [RerankResponseResultsItem(document=None, index=407, relevance_score=0.9875684), RerankResponseResultsItem(document=None, index=100, relevance_score=0.9795897), RerankResponseRe
sultsItem(document=None, index=202, relevance_score=0.9753901), RerankResponseResultsItem(document=None, index=496, relevance_score=0.9711838), RerankResponseResultsItem(document=None, inde
x=479, relevance_score=0.96653706), RerankResponseResultsItem(document=None, index=481, relevance_score=0.9421884), RerankResponseResultsItem(document=None, index=68, relevance_score=0.8656
7897), RerankResponseResultsItem(document=None, index=394, relevance_score=0.86153823), RerankResponseResultsItem(document=None, index=228, relevance_score=0.4989891), RerankResponseResults
Item(document=None, index=5, relevance_score=0.49455282)])
```