Final_Project (2)

April 7, 2025

1 DS8008 Final Project

1.1 Manav Patel - 500967756

```
[1]: # mount drive and setting working directory
     from google.colab import drive
     import os

     drive.mount('/content/drive', force_remount=True)
     source_folder = '/content/drive/MyDrive/Colab Notebooks/DS8008/FinalProject'
     target_folder = '/content/Final_Project'
     if os.path.islink(target_folder) or os.path.exists(target_folder):
         os.unlink(target_folder)
     os.symlink(source_folder, target_folder)
     os.chdir(target_folder)

     print("Working directory:", os.getcwd())
     print("Files:", os.listdir('.'))
```

```
Mounted at /content/drive
Working directory: /content/drive/MyDrive/Colab Notebooks/DS8008/FinalProject
Files: ['FinalProjectDocuments.txt', 'numbered_questions.txt',
'.ipynb_checkpoints', 'Final Project', 'documents_chunks.npy',
'document_embeddings.npy', 'faiss_index.idx', 'qa_results.csv']
```

```
[2]: # import data
     import pandas as pd
     import nltk
     import re # Import re for regular expressions
     from nltk.tokenize import sent_tokenize

     # Download NLTK punkt if not already available
     nltk.download('punkt_tab')

     # Load documents from FinalProjectDocuments.txt
     with open("FinalProjectDocuments.txt", "r", encoding="utf-8") as f:
         documents_text = f.read()
```

```python
# Display the first 2500 characters of the text
print('\n\nExample text from the document: ',documents_text[:2500])

document_length = len(documents_text)
print(f"\n\nFirst 10 characters: {documents_text[:10]}")
print(f"Last 10 characters: {documents_text[-10:]}")
print(f"Length of document: {document_length} characters")
```

[nltk_data] Downloading package punkt_tab to /root/nltk_data…
[nltk_data]   Package punkt_tab is already up-to-date!

Example text from the document: Beginners BBQ Class Taking Place in Missoula!
Do you want to get better at making delicious BBQ? You will have the
opportunity, put this on your calendar now. Thursday, September 22nd join World
Class BBQ Champion, Tony Balay from Lonestar Smoke Rangers. He will be teaching
a beginner level class for everyone who wants to get better with their culinary
skills.
He will teach you everything you need to know to compete in a KCBS BBQ
competition, including techniques, recipes, timelines, meat selection and
trimming, plus smoker and fire information.
The cost to be in the class is $35 per person, and for spectators it is free.
Included in the cost will be either a t-shirt or apron and you will be tasting
samples of each meat that is prepared.
Discussion in 'Mac OS X Lion (10.7)' started by axboi87, Jan 20, 2012.
I've got a 500gb internal drive and a 240gb SSD.
When trying to restore using disk utility i'm given the error "Not enough space
on disk ____ to restore"
But I shouldn't have to do that!!!
Any ideas or workarounds before resorting to the above?
Use Carbon Copy Cloner to copy one drive to the other. I've done this several
times going from larger HDD to smaller SSD and I wound up with a bootable SSD
drive. One step you have to remember not to skip is to use Disk Utility to
partition the SSD as GUID partition scheme HFS+ before doing the clone. If it
came Apple Partition Scheme, even if you let CCC do the clone, the resulting
drive won't be bootable. CCC usually works in "file mode" and it can easily copy
a larger drive (that's mostly empty) onto a smaller drive. If you tell CCC to
clone a drive you did NOT boot from, it can work in block copy mode where the
destination drive must be the same size or larger than the drive you are cloning
from (if I recall).
I've actually done this somehow on Disk Utility several times (booting from a
different drive (or even the dvd) so not running disk utility from the drive
your cloning) and had it work just fine from larger to smaller bootable clone.
Definitely format the drive cloning to first, as bootable Apple etc..
Thanks for pointing this out. My only experience using DU to go larger to
smaller was when I was trying to make a Lion install stick and I was unable to
restore InstallESD.dmg to a 4 GB USB stick but of course the reason that

wouldn't fit is there was slightly more than 4 GB of data.
Foil plaid lycra and spandex shortall with metallic slinky insets. Attached
metallic elastic belt with O-ring. Headband inc

First 10 characters: Beginners
Last 10 characters: d so much?
Length of document: 64522952 characters

```python
# Load questions from numbered_questions.csv
with open("numbered_questions.txt", "r") as f:
    questions_list = f.readlines()
questions_list = [re.sub(r'^\d+\.\s*', '', q.strip()) for q in questions_list]
questions_df = pd.DataFrame(questions_list, columns=["question"])

print("Loaded {} questions.".format(len(questions_list)))
print(questions_df)
```

Loaded 20 questions.

```
                                                question
0    How many scrolls were in the grand library of …
1              Where can the bluefire crystal be found?
2    In what year did Dr. Helena Carter win the Nob…
3                 What is the national bird of Veridonia?
4    What was the name of the first space station o…
5                     What is Lake Virelia famous for?
6       When was 'Echoes of Tomorrow' first published?
7    How long did it take the Zephyr-9 to fly aroun…
8    Who developed the first AI capable of composin…
9                    How many moons does Xyphora have?
10   What is the seating capacity of the Grand Arca…
11          Where is the silver-tailed lynx native to?
12               When was the ChronoGem discovered?
13                       How tall is Solaris Tower?
14                    What was Novaterra built on?
15                    When was Vortexium invented?
16         How long does the Luminara Festival last?
17                  How many people speak Nythrani?
18         Which cities does the HyperLoop-5 connect?
19                 Where is the Moonshade Rose found?
```

```
!pip install faiss-cpu
```

Requirement already satisfied: faiss-cpu in /usr/local/lib/python3.11/dist-
packages (1.10.0)
Requirement already satisfied: numpy<3.0,>=1.25.0 in
/usr/local/lib/python3.11/dist-packages (from faiss-cpu) (1.26.4)
Requirement already satisfied: packaging in /usr/local/lib/python3.11/dist-
packages (from faiss-cpu) (24.2)

```
[5]:  # Cell 2: FAISS Indexing with Sentence-BERT (150-word Chunks with 1 Sentence
      ↪Overlap)
      import numpy as np
      import faiss
      from sentence_transformers import SentenceTransformer
      from tqdm import tqdm
      from nltk.tokenize import sent_tokenize
      import os

      # Load model
      print("Loading SentenceTransformer model: all-MiniLM-L6-v2...")
      model = SentenceTransformer('all-MiniLM-L6-v2')
      print("Model loaded.\n")
```

Loading SentenceTransformer model: 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 secret in your Google Colab
and restart your session.
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(

Model loaded.

```
[6]:  from nltk.tokenize import sent_tokenize
      import numpy as np
      import os

      # chunking by sentence groups with overlap
      def chunk_by_sentences_with_overlap(text, max_words=150, overlap_sentences=1):
          print(f"Splitting into {max_words}-word chunks with {overlap_sentences}
      ↪sentence overlap\n")
          sentences = sent_tokenize(text)
          word_counts = [len(s.split()) for s in sentences]

          chunks = []
          i = 0
          total_sentences = len(sentences)
          chunk_counter = 0

          while i < total_sentences:
              current_chunk = []
```

```python
        current_word_count = 0
        j = i

        while j < total_sentences and current_word_count + word_counts[j] <=␣
 ↪max_words:
            current_chunk.append(sentences[j])
            current_word_count += word_counts[j]
            j += 1

        if current_chunk:
            chunks.append(" ".join(current_chunk))
            chunk_counter += 1

            if chunk_counter % 100 == 0:
                print(f"Chunks created: {chunk_counter} | Current sentence␣
 ↪index: {i}/{total_sentences}")

        if j == i:
            j += 1

        i = j - overlap_sentences if j - overlap_sentences > i else j

    print(f"\nChunking complete. Total chunks created: {len(chunks)}\n")
    return chunks

# Load or create document chunks
if os.path.exists("documents_chunks.npy"):
    print("Found 'documents_chunks.npy'. Loading from file...\n")
    documents_chunks = np.load("documents_chunks.npy", allow_pickle=True).
 ↪tolist()
else:
    print("Starting chunking process...")
    documents_chunks = chunk_by_sentences_with_overlap(documents_text,␣
 ↪max_words=150, overlap_sentences=1)
    np.save("documents_chunks.npy", np.array(documents_chunks))
    print("Chunks saved to 'documents_chunks.npy'.\n")

# Preview first few chunks
for i in range(min(5, len(documents_chunks))):
    print(f"Chunk {i + 1} Preview:\n{documents_chunks[i]}\n")
```

Found 'documents_chunks.npy'. Loading from file…

Chunk 1 Preview:
Beginners BBQ Class Taking Place in Missoula! Do you want to get better at
making delicious BBQ? You will have the opportunity, put this on your calendar
now. Thursday, September 22nd join World Class BBQ Champion, Tony Balay from

Lonestar Smoke Rangers. He will be teaching a beginner level class for everyone who wants to get better with their culinary skills. He will teach you everything you need to know to compete in a KCBS BBQ competition, including techniques, recipes, timelines, meat selection and trimming, plus smoker and fire information. The cost to be in the class is $35 per person, and for spectators it is free. Included in the cost will be either a t-shirt or apron and you will be tasting samples of each meat that is prepared. Discussion in 'Mac OS X Lion (10.7)' started by axboi87, Jan 20, 2012.

Chunk 2 Preview:
Discussion in 'Mac OS X Lion (10.7)' started by axboi87, Jan 20, 2012. I've got a 500gb internal drive and a 240gb SSD. When trying to restore using disk utility i'm given the error "Not enough space on disk ____ to restore"
But I shouldn't have to do that!!! Any ideas or workarounds before resorting to the above? Use Carbon Copy Cloner to copy one drive to the other. I've done this several times going from larger HDD to smaller SSD and I wound up with a bootable SSD drive. One step you have to remember not to skip is to use Disk Utility to partition the SSD as GUID partition scheme HFS+ before doing the clone. If it came Apple Partition Scheme, even if you let CCC do the clone, the resulting drive won't be bootable.

Chunk 3 Preview:
If it came Apple Partition Scheme, even if you let CCC do the clone, the resulting drive won't be bootable. CCC usually works in "file mode" and it can easily copy a larger drive (that's mostly empty) onto a smaller drive. If you tell CCC to clone a drive you did NOT boot from, it can work in block copy mode where the destination drive must be the same size or larger than the drive you are cloning from (if I recall). I've actually done this somehow on Disk Utility several times (booting from a different drive (or even the dvd) so not running disk utility from the drive your cloning) and had it work just fine from larger to smaller bootable clone. Definitely format the drive cloning to first, as bootable Apple etc.. Thanks for pointing this out.

Chunk 4 Preview:
Thanks for pointing this out. My only experience using DU to go larger to smaller was when I was trying to make a Lion install stick and I was unable to restore InstallESD.dmg to a 4 GB USB stick but of course the reason that wouldn't fit is there was slightly more than 4 GB of data. Foil plaid lycra and spandex shortall with metallic slinky insets. Attached metallic elastic belt with O-ring. Headband included. Great hip hop or jazz dance costume. Made in the USA. How many backlinks per day for new site? Discussion in 'Black Hat SEO' started by Omoplata, Dec 3, 2010. 1) for a newly created site, what's the max # backlinks per day I should do to be safe? 2) how long do I have to let my site age before I can start making more blinks?

Chunk 5 Preview:
2) how long do I have to let my site age before I can start making more blinks?
I did about 6000 forum profiles every 24 hours for 10 days for one of my sites

which had a brand new domain. There is three backlinks for every of these forum profile so thats 18 000 backlinks every 24 hours and nothing happened in terms of being penalized or sandboxed. This is now maybe 3 months ago and the site is ranking on first page for a lot of my targeted keywords. build more you can in starting but do manual submission and not spammy type means manual + relevant to the post.. then after 1 month you can make a big blast..

Wow, dude, you built 18k backlinks a day on a brand new site? How quickly did you rank up? What kind of competition/searches did those keywords have?

```python
[7]: # Compute Embeddings in Batches of 512
def embed_documents_in_batches(docs, batch_size=512):
    print(f"Embedding {len(docs)} chunks in batches of {batch_size}...")
    embeddings = []
    for i in tqdm(range(0, len(docs), batch_size), desc="Embedding chunks"):
        batch = docs[i:i + batch_size]
        batch_embeddings = model.encode(batch, convert_to_numpy=True)
        embeddings.append(batch_embeddings)
    print("Embedding complete.\n")
    return np.vstack(embeddings)


if os.path.exists("document_embeddings.npy"):
    print("Loading from 'document_embeddings.npy'...")
    embeddings = np.load("document_embeddings.npy")
else:
    print("No saved embeddings found. Starting embedding process...")
    embeddings = embed_documents_in_batches(documents_chunks)
    np.save("document_embeddings.npy", embeddings)
    print("Embeddings saved to 'document_embeddings.npy'.\n")
```

Loading from 'document_embeddings.npy'…

```python
[8]: # building FAISS Index
def build_faiss_index(embeddings):
    print(f"Building FAISS index with {len(embeddings)} vectors...")
    d = embeddings.shape[1]
    index = faiss.IndexFlatL2(d)
    index.add(embeddings)
    print("FAISS index built.\n")
    return index

print("Building and saving FAISS index...")
index = build_faiss_index(embeddings)
faiss.write_index(index, "faiss_index.idx")
print("FAISS index saved to 'faiss_index.idx'")
```

Building and saving FAISS index…
Building FAISS index with 91561 vectors…
FAISS index built.

```
FAISS index saved to 'faiss_index.idx'
```

```
[9]:  # Cell 3: FAISS Retrieval for Input Question(s)
      from sentence_transformers import SentenceTransformer
      import numpy as np
      import faiss

      # Load saved components
      print("Loading FAISS index from 'faiss_index.idx'...")
      index = faiss.read_index("faiss_index.idx")
      print("FAISS index loaded.")

      print("Loading document chunks from 'documents_chunks.npy'...")
      documents_chunks = np.load("documents_chunks.npy", allow_pickle=True).tolist()
      print(f"Loaded {len(documents_chunks)} document chunks.\n")
```

```
Loading FAISS index from 'faiss_index.idx'…
FAISS index loaded.
Loading document chunks from 'documents_chunks.npy'…
Loaded 91561 document chunks.
```

```
[10]:  def retrieve_top_k_chunks(question, k=3):
           """
           Encodes the input question, searches FAISS index for top-k most relevant
       ↪chunks.

           Args:
               question (str): Natural language question.
               k (int): Number of top chunks to retrieve.

           Returns:
               List of tuples: (chunk_text, score)
           """
           print(f"Encoding question: \"{question}\"")
           question_embedding = model.encode([question], convert_to_numpy=True)

           print(f"Querying FAISS index for top {k} relevant chunks...")
           distances, indices = index.search(question_embedding, k)

           top_chunks = [(documents_chunks[i], distances[0][rank]) for rank, i in
       ↪enumerate(indices[0])]
           print(f'top_chunks: {top_chunks[0]}')
           print("\nTop retrieved chunks:")
           for idx, (chunk, score) in enumerate(top_chunks):
               print(f"\n--- Chunk #{idx+1} (Score: {score:.4f}) ---")
               print(chunk)
```

```
    return top_chunks

# Test example
sample_question = questions_df.iloc[0]['question']  # same as Cell 2
print(sample_question)
top_chunks = retrieve_top_k_chunks(sample_question, k=50)
```

How many scrolls were in the grand library of Zandoria?
Encoding question: "How many scrolls were in the grand library of Zandoria?"
Querying FAISS index for top 50 relevant chunks…
top_chunks: ('The first is the Elene Akhvlediani ex libris, the second is the
Sergo Kobuladze ex libris. We did not have a separate collection of ex librises
until now. Of course there are such materials in archives and in books, but so
far we have not had such an amount of ex librises," he said. "Ex librises were
invented along with book printing and were an integral part of a book through
the ages. Today, some of them are considered works of art. That is why
participation in such a project is very important for ProCredit Bank, and we are
very pleased that this unique ex libris collection has been added to the
heritage of Georgian manuscripts," said Sascha Ternes, General Director of JSC
ProCredit Bank.', 1.1369743)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1370) ---
The first is the Elene Akhvlediani ex libris, the second is the Sergo Kobuladze
ex libris. We did not have a separate collection of ex librises until now. Of
course there are such materials in archives and in books, but so far we have not
had such an amount of ex librises," he said. "Ex librises were invented along
with book printing and were an integral part of a book through the ages. Today,
some of them are considered works of art. That is why participation in such a
project is very important for ProCredit Bank, and we are very pleased that this
unique ex libris collection has been added to the heritage of Georgian
manuscripts," said Sascha Ternes, General Director of JSC ProCredit Bank.

--- Chunk #2 (Score: 1.1679) ---
This new view on aspects of the Ghaznavid and Seljuk dynasties concentrates on
the relationship of the panegyric poets Farrukhi Sistani (c.995-1032) and
Mu'izzi (c.1045-1127) to the Ghaznavid and Seljuk rulers and dignitaries for
whom they wrote. Dr Tetley investigates the reliability of the historical
information which may be gathered from the poems, and draws comparisons with
other historical sources. A solid and impressive work of learning, of interest
to scholars in Oriental Studies, Medieval Literature, and History, The Ghaznavid
and Seljuk Turks: Poetry as a Source for Iranian History, is the first extended
English study of Mu'izzi it presents much new material concerning both this
little-studied poet and also the better-known Farrukhi. Additionally, there is a
valuable exploration of the relationship between Persians and Turks, a highly
significant factor during the rule of the two dynasties.

--- Chunk #3 (Score: 1.1700) ---
Zaria ("dawn") was both the name of one of the mission communications systems,
and used as callsigns for the ground stations. The Zaria communications system
was designed by NII-695, led by their Chief Designer Yuriy Sergeyevich Bykov,
who was present at the Zaria-1 ground station at the launch site. This Stunning
2 Pc. Sectional is shown in High Performance Fabric. Available in other Fabrics
and Leathers. Other Pieces Available. Water Repellent. High Wear and Tear
Resistance. High Rubbing Resistance. Everlasting Vibrant Colours. The following
designs encompass several years of experimenting with glass colors and shapes in
order to showcase a variety of bracelets. As in all of my other torch-fired
pieces, each bracelet is created by melting sticks of Murano glass then shaping
free-form with an oxygen/propane torch (please click the handcrafted process tab
to learn more).

--- Chunk #4 (Score: 1.2295) ---
During the latter years of his life, Seongcheol presided over many publications,
including eleven books of his lectures and 37 books that translated many Zen
classics not well known to the general public (see official website). The former
included the full transcriptions of the Hundred-Day Talk, lectures on Huineng's
sutra, Shin Sim Myung (Hangul: , Hanja:), Jeung Do Ga (Hangul: ,
Hanja:), Illumination of Sudden Enlightenment (Hangul: , Hanja:
   ), and his dharma talks. The latter was called Seon Lim Go Gyung Chong
Suh (Hangul: , Hanja:) and was a collection of Chinese and Korean
Zen classics that until publication was known mostly only to monks. These
publications helped to spread his teachings to the general public and raise the
general awareness and knowledge of Buddhism. English translations of Great
Master Seongcheol's work include "Echoes from Mt.

--- Chunk #5 (Score: 1.2449) ---
What was your conclusion? Do you recommend blog tours? Wholeheartedly. I've made
some new blogging friends and Visions of Zarua has received some great reviews
because of it. Fantastic. Give us places to see where you went and where you'll
be. Here are the links to all the blogs that were involved in my tour. Give us
the blurb and where can my readers get this intriguing book of yours. Smashwords
Has a 50% sale. Only $2.00 throughout July. Goodreads Giveaway ends 24th July.
Still time to win a signed paperback copy here. Okay, and what else can I bother
you for? How about a favorite passage from Visions of Zarua? Varnia took a step
towards the trees, but he grabbed her arm. 'Wait!

--- Chunk #6 (Score: 1.2533) ---
Key performers: St. Francis - Jack Petrando, 156 rushing yards, TD; Jeff
Rutkowski, 2 sacks; 41 rushing yards; Immaculate Conception - Demetrius Carr,
7-for-13, 77 yards. The ancient city of Zandoria was founded in 1200 BC and was
known for its grand library, which housed over 50,000 scrolls. Howard Gruber
(Rutgers, Geneva), Robert B. Davis (Illinois, Rutgers), Oliver G. Selfridge
(MIT, BBN), Wallace Feurzeig (Chicago, BBN). Sources of professional and
personal inspiration. See also Five Pioneers videos directory. A funeral Mass

has begun in Michigan for former Rep. John Dingell, the longest serving member of Congress in U.S. history. The service began late Tuesday morning in the Detroit suburb of Dearborn. Former Vice President Joe Biden is expected to speak at the service honoring Dingell, who died Thursday at age 92. The funeral began following a brief delay because of snow and icy roads in the region.

--- Chunk #7 (Score: 1.2552) ---
A famous anecdote serves to illustrate the daunting task of the 3000 prostrations and Seongcheol's strict adherence to his own rules. When Park Chung-hee, the president of Korea, was opening up the new highway between Seoul and Pusan, he happened to visit Haeinsa. Hearing that the president was visiting, the head administrative monk quickly sent word to Seongcheol to come down from his hermitage to greet the president. But true to form, Seongcheol demanded the president go to the main Buddha hall and perform the 3000 prostrations before meeting with him. Park refused and the two never met. During the latter years of his life, Seongcheol presided over many publications, including eleven books of his lectures and 37 books that translated many Zen classics not well known to the general public (see official website).

--- Chunk #8 (Score: 1.2598) ---
Books One, Two and Four of the Varia are dated 1585 on their colophons, while Book 3 is dated 1587. The first two books are occasionally found bound without Books 3 and 4, and it is surmised that the final two books appeared in 1587 (in spite of the 1585 date on Book 4), after an interruption in printing caused by a fire or a controversy about privileges, at which point the complete work was bound together as seen in the present copy (Fajardo, 72-2; Bonet Correa, 159). Juan de Arfe was the third in a line of renowned metalworkers originally hailing from Germany - following his grandfather, Enrique, and father, Antonio - and is known to have been active in Valladolid, Sevilla, and Madrid.

--- Chunk #9 (Score: 1.2667) ---
They shouldn't fall into someone else's hands, in some cases private collectors. Then the trace will be lost," Buba Kudava said. "We were searching over the internet with our colleagues for information of this sort, and we managed to connect with an individual in Thessaloniki, Greece. We asked them to send us information on a regular basis about Georgia-related materials. And indeed they sent us the ex libris collection and when we showed this material to experts, it turned out to be very interesting. There are many famous figures associated with these ex librises. On the one hand, one part of this collection was designed by well-known artists. The second part is known because it is created for famous statesmen, but by a lesser-known Georgian painter. The first is the Elene Akhvlediani ex libris, the second is the Sergo Kobuladze ex libris.

--- Chunk #10 (Score: 1.2796) ---
Divisi per gli 8. CAIGO with accent on letter i: Questo sito utilizza cookie. May I introduce mine? I transfughi a quel punto rientrarono in patria, ma le quote di mercato no: A masterpiece of blown glass by Maestro Gino Cenedese, entirely made in Murano:. Crea un sito o un blog gratuitamente presso Barenw. Do

you come from Padova? Certo, ma era semplicemente per tassarle meglio: For more information I recommend the official website of the gondola makers, where you can learn much more: On this page you will find some of them, in alphabetical order, with a short explanation. Pellestrina almost in its entirety and the western part of the Lido island where the Murazzi start shortly after the Excelsior Hotel.

--- Chunk #11 (Score: 1.2807) ---
It therefore has two façades with separate entrances. The rear façade, with two large windows on the first floor and a delicate roof covering the doorway, contains the entrance to the Popular Asturian Pottery Museum. Inside, it has three floors where the pottery is on display. The museum has three floors housing an important and interesting collection of popular Asturian pottery, all perfectly classified, documented and displayed. This floor displays all the black pottery, mainly from the potteries to be found in the borough of Piloña, in central Asturias. There is also a collection of period furniture. This floor is given over exclusively to Cerámica de Rayu pottery, from Vega de Poja (Siero). This comprises white-and-blue-glazed pottery. This floor houses the archives made up of museum documents as well as papers related to pottery and an interesting library from a regional perspective.

--- Chunk #12 (Score: 1.2842) ---
Where is the scribe? where is the receiver? where is he that counted the towers? Shaqal (h8254) shaw-kal'; a prim. root; to suspend or poise (espec. in trade): - pay, receive (-r), spend, * throughly, weigh. Gadal (h1431) gaw-dal'; a prim. root; prop. to twist [comp. 1434], i. e. to be (caus. make) large (in various senses, as in body, mind, estate or honor, also in pride): - advance, boast, bring up, exceed, excellent, be (-come, do, give, make, wax), great (-er, come to… estate, / things), grow (up), increase, lift up, magnify (-ifical), be much set by, nourish (up), pass, promote, proudly [spoken], tower. Teraphiym (h8655) ter-aw-feme'; plur. per. from 7495; a healer; Teraphim (sing. or plur.) a family idol: - idols (-atry), images, teraphim. Suzoopoieo (g4806) sood-zo-op-oy- eh'-o; from 4862 and 2227; to reanimate conjointly with (fig.): - quicken together with.

--- Chunk #13 (Score: 1.2845) ---
However it is notable that the manuscripts consistently arrange the structure within a width of five roundels, which is taken here as a basic.. If we assume a nine-row height as the other fixed constraint for this group, as necessitated by the Great Stemma design (row 0 is unavailable as it is taken by Eber), there will in fact only be room for 13 roundels (the father and 12 sons). The attribution of 13 or even 14 sons to Joktan is therefore unlikely to have been original, and 12 surely must be the adopted number. The G recension of the Liber Genealogus assigns just 12 sons to him, and is quite explicit about this, since it counts them out, apparently in dependence on a particular Septuagtint and Vetus Latina tradition which omitted Gabel, eighth in the canonical order.

--- Chunk #14 (Score: 1.2845) ---

Click the button below to add the Rare Mineralogy Book: Brard, Cyprien Prosper; Minéralogie appliquée aux arts ou histoire des minéraux..1821 to your wish list. Brard, Cyprien Prosper; Minéralogie appliquée aux arts ou histoire des minéraux qui sont employés dans l'agriculture, l'économie domestique, la médicine; la fabrication des sels, des combustibles et des métaux; l'architecture et la décoration; la peinture et le dessin; les arts mécaniques; la bijouterie et la joaillerie. 3 volumes, F.G. Levrault, Paris, 1821. Octavo, volume 1, pp. 5, viii, 696, 4 engraved folded plates. Volume 2, pp. 3, 491, 3 engraved plates. Volume 3, pp. 3, 524, 8 engraved plates (1 colored). In modern cloth, x-lib. with smudge mark on lower edge of spines, light to moderate foxing to first four pages of each volume, small discard stamp on end sheets. In very good condition. Brard; (1788-1838) was a French mineralogist, and economic geologist.

--- Chunk #15 (Score: 1.2858) ---
Facing Giudecca Channel, it is the best place to enjoy the sun and take a long walk afterwards. Its name comes from the zattere, a la the historic rafts that were docked here to store the city's timber. It is also the best place to enjoy an ice cream, maybe at Gelateria da Nico , loved by Penny Guggenheim and Angelina Jolie, and famous for its Gianduiotto. It's also the best starting point for an afternoon stroll among the best shops! Even if it's crowded with tourists, Accademia area in Sestiere Dorsoduro has always been one of my favorites. It is really filled with culture and art and has recently become a real art-walk, thanks to the Venice Museum Mile project.

--- Chunk #16 (Score: 1.2863) ---
The "Tower of Trongsa" tells the stories of the dzong and the valley that it has watched over for centuries. His Majesty the King inaugurates the Ta Dzong as a museum dedicated to the Wangchuk dynasty, land marking yet another significant event as the nation celebrates 100 years of the monarchy. It has been restored into a classy museum that represents a tasteful blend of tradition and modernity. There are 224 items on display, include a sacred image of Sung Joenma Dorji Chang (self spoken Vajradharna), a bronze statue of Pema Lingpa, made by himself and a number of centuries old treasures like dance and ritual costumes and objects, ancient prayer books, paintings and scrolls and textiles. The valley of Phobjikha is well known as the winter home of the Black necked crane (Grus Nigricollis).

--- Chunk #17 (Score: 1.2918) ---
(Octopus inclusion may vary.) The books will also have a bibliography and additional reading recommendations at the end. And then they'll be full of brightly colored, information-filled artwork (like this spread from Maris Wicks' Coral Reefs)! Or this spread from MK Reed and Joe Flood's Dinosaurs (complete with dinosaur digestion)! Also: skeletons! Really, how can you resist? Excited for more Science Comics? We are too! The end (with fun facts)! These two books will be in stores in April! And we'll have a special Free Comic Book Day Science Comics pamphlet comic for you as well - we can't wait! This new view on aspects of the Ghaznavid and Seljuk dynasties concentrates on the relationship of the panegyric poets Farrukhi Sistani (c.995-1032) and Mu'izzi (c.1045-1127) to the

Ghaznavid and Seljuk rulers and dignitaries for whom they wrote.

--- Chunk #18 (Score: 1.2927) ---
The links above include the first two guest posts by the author and a new
interview. Gudrun answers questions and reveals more about how her family
history helped choose the direction for her novel. If you have already read the
book, your honest review on Goodreads and Amazon can help others find From Ashes
Into Light. And it's quick and easy to join in the discussion. If you are going
on vacation for spring break and taking From Ashes Into Light along with you,
send us a photo of reading on vacation and we'll post them online! Happy travels
everyone. Great washi tape for scrapbooking layouts, card making and holding
dies in place while die cutting them. Roll size 15mm x 10m. Good for
scrapbooking layouts and making cards. Roll size 15mm x 10m. Creator: Unknown.
December 3, 1909. The Citizen. (LaKemp, Okla.), Vol. 1, No. 46, Ed.

--- Chunk #19 (Score: 1.2943) ---
Likewise, the town of Abonuteichos was petitioned to be renamed Ionopolis, and
the town is today known as Ineboli, a clear derivation. Even statues,
inscriptions, and other carvings survive, attesting to this Alexander and his
god Glycon and their ensuing cult (Culture and Society in Lucian, pp. 138, 143).
As for his influence, Lucian tells us that Severianus, the governor of
Cappadocia, was killed in Armenia because he believed an oracle of Alexander's
(27), and Rutilianus, the governor of Moesia and Asia, was also a devout
follower, and even married Alexander's daughter. Indeed, Alexander's "god" was
so popular that people rushed all the way from Rome to consult him (30), and
even the emperor Marcus Aurelius sought his prophecy (48).

--- Chunk #20 (Score: 1.3025) ---
Born on April 10, 1912 in Korea under the name of Yi Yeongju( ), Seongcheol
was the first of seven children of a Confucian scholar in Gyeongsang province.
He was rumored to have been an exceptionally bright child who read constantly,
having learned to read at the age of three, and being proficient enough to read
such Chinese classics as Romance of the Three Kingdoms and Journey to the West
by age ten. His enthusiasm for reading was such that he once traded a sack of
rice for Immanuel Kant's Critique of Pure Reason as a teenager. Having read
numerous books on philosophy and religion, both Western and Eastern, he
reportedly felt dissatisfied, being convinced that these could not lead him to
truth.

--- Chunk #21 (Score: 1.3031) ---
Google image search "Xerxes" and the first thing that pops up are images from
the comic book turned Hollywood blockbuster film 300. Cult author Frank Miller's
bizarre, distorted portrayal of the ancient Persian king Xerxes the Great and
his battles with the Greeks in 300 is a piece of self proclaimed stylized
"propaganda". Luckily for those of us who enjoy graphic novels and accurate
portrayals of history, author-illustrator Ramin Abhari has just come out with a
new comic called Xerxes Speaks based on events surrounding the Greco-Persian
battle of Thermopylae in 480 BC, as told from a Persian perspective. Students of

Middle Eastern history and geopolitics would do well to pick up a copy of Xerxes Speaks, which delves into the first 200 years of the Persian Empire and it's rapid expansion into a world superpower.

--- Chunk #22 (Score: 1.3062) ---
It s not about what you bring in, it s what you put into your pocket. The KGB reports that as a result of measures conducted in 1981 to combat smuggling and violations of rules on foreign currency transactions among a number of smugglers, foreigners and their criminal connections among Soviet citizens, it has seized, in the lawful manner, a large number of antiques and works of art, presenting, according to experts, historical and artistic value. With this in mind, antique ecclesiastical ornaments (icons, crosses, other items), works of 17-19th century art (201 items total), as well as 30 copies of books published in Russia in 1883-1916, have been transferred to the Directorate of the Moscow Kremlin State Museums. The above is reported for information. The Cylon Weekly World News! Vol. 1: Gaeta Eats Waffles! Vol. 2: We Demand a Rematch! Vol. 3: Wallace Gray Confesses! Vol. 4: Tom Zarek Responds! Vol.

--- Chunk #23 (Score: 1.3142) ---
The leftwards retroflection is notable, since it is against the classical reading direction. It is possible that medieval editors were surprised at the over-long lines swerving to the left in this way. A later Alpha version (here from the Cardena Beatus, at left) instead swings it to the right. The Foigny manuscript (second from left) suggests yet another attempt at a solution: compacting the line by squeezing it into a concertina shape. When one attempts to reconstruct the Great Stemma, it is plain that an ideal layout would allow a width of only four items for this group, because otherwise there is a large, papyrus-wasting gap alongside Shelah with most of a column left blank. However it is notable that the manuscripts consistently arrange the structure within a width of five roundels, which is taken here as a basic..

--- Chunk #24 (Score: 1.3155) ---
Throughout the various floors, park-goers are entertained by rollercoasters, flume rides, 3D IMAX theatres, simulations, bumper cars, and more. Magic Island also has a famous ride called Atlantis Adventure. For thrill seekers, Gyro Drop, a VR enhanced experience, is a must. Check out Seoul Lotte World tickets and packages that you can't miss. If you love taking photographs of architecture or consider yourself a history buff (or both), then the ornate Gyeongbokgung is going to have you snapping pictures left and right. The palace was originally built in A.D. 1395 and was a pivotal location for the Joseon Dynasty. Although the name translates into "Palace Greatly Blessed by Heaven," Gyeongbok Palace was actually destroyed during the Japanese invasion in the 1590s. However, after being rebuilt, another Japanese invasion in the early 1900s. Then in 1990, the second (and hopefully final) restoration was completed.

--- Chunk #25 (Score: 1.3179) ---
NOW LEAVING US WITH A FINAL GRAND TOTAL OF £8,152.49p raised for families caring for terminally ill children. This will allow us to help not one but 3 more CCF

families and we can't thank Barclays enough for helping us in making this outstanding total possible. We thank you all from the bottom of our hearts for making this day such a special and memorable event working with us to make such a difference. Today's Google Doodle is dedicate to great Philosopher and Mathematician Maria Gaetana Agnesi. Maria born on 16th May 1718, famous for writing book on integral and differential calculas, honored on 296th birthday, with this animated doodle. Depicting Maria Gaetana Agnesi in center of doodle, logo alphabets are included in both sides of the doodle in new style, say in a mathematical style.

--- Chunk #26 (Score: 1.3201) ---
For a time a pillar of fire, visible at a great distance, rose above the grave of the prophet, but it disappeared in consequence of the unseemly conduct of the pilgrims who resorted thither. 2- In the fifth year, and in the seventh day of the month, what time as the Chaldeans took Jerusalem, and burnt it with fire. 4- And in the hearing of the nobles, and of the king's sons, and in the hearing of the elders, and of all the people, from the lowest unto the highest, even of all them that dwelt at Babylon by the river Sud. 5- Whereupon they wept, fasted, and prayed before the Lord. 9- After that Nabuchodonosor king of Babylon had carried away Jechonias, and the princes, and the captives, and the mighty men, and the people of the land, from Jerusalem, and brought them unto Babylon.

--- Chunk #27 (Score: 1.3283) ---
The FINANCIAL (AD) -- ProCredit Bank has donated a unique ex libris collection to the National Centre of Manuscripts. This donation was part of a project jointly initiated by the National Centre of Manuscripts and ProCredit Bank, in which the Bank bought a unique collection of ex librises from a private individual living in Thessaloniki, Greece. Many of the graphic images on the ex librises were the work of Georgian painters, so their donation to the National Centre of Manuscripts is a very important contribution to preserving the heritage of Georgian manuscripts. They carry additional information about the life and creative work of Georgia's artists and important public figures. "From ProCredit Bank's side we are extremely delighted to have had the chance to support Georgia's culture and inheritance of manuscripts.

--- Chunk #28 (Score: 1.3288) ---
Process and Progression is a retrospective of Nahusenay's work over the last 16 years. Though wide-ranging in his choice of medium, Nahusenay's exploration of the Himeme Siqlet, a sacred Ethiopian Orthodox text, is what grounds his seemingly disparate pieces together, through its evocation of the world's opposing forces (light, dark; flesh, spirit; good, evil) and the futility of their reconciliation. Using the checkerboard motif that appears throughout his work, Nahusenay probes the Biblical passage, which illustrates the drunken gambling and revelry that took place underneath the cross during the Crucifixion. Using rows upon rows of black and white squares and etchings, he takes this meditation to a more secular context, as the alternating squares sinuously trace the calm repose of a woman seated behind a café table, clasping her mobile phone.

--- Chunk #29 (Score: 1.3302) ---
Each scholar was required to read one book from the Vassal Lane Faculty Book List and to return back to school in September ready to discuss the book in a small book group. On the first Friday of the school year, teachers and scholars met and discussed their books in more than forty small book groups. Book groups met outside on the field behind the school on a beautiful, sunny afternoon. One Vassal Lane scholar noted that students made their book selections both based on interest in the book and on their connections with particular teachers. Book groups had a mix of sixth, seventh, and eighth grade scholars, giving everyone a chance to get to know each other a little better outside of their regular classroom schedules and groupings.

--- Chunk #30 (Score: 1.3328) ---
ink, by hand. After about 10 pages he started spacing his lines a little more closely together so as to fit 42 lines of type per page, thus saving himself about 30 pages per Bible. Later when the print run was enlarged, the extra copies of these initial pages were made to match the rest of the Bible. So, there are versions with some printed rubrication and some without, there are versions with some 40-line pages and some without, there are versions printed on paper and some on vellum, and any hand rubrication and illumination done on each copy will be unique, meaning that no two copies of the Bible are identical, despite its being the first mass-produced book.

--- Chunk #31 (Score: 1.3340) ---
Selva – Caimari – Lluc: would be a shorter day-walk of couple of hours to the monastery starting either from small town of Selva (~12,5 km), or Caimari (~8 km with 5 % ascend). Cami De LLuc: recently created chain of routes to promote the pilgrimage as a slow way to travel the island. The seven routes (Ruta de Ses Salines, Ruta de Manacor, Ruta d'Arta, Ruta d'Alcudia, Ruta de Formentor, Ruta d'Andratx, Ruta de Palma) are marked with heart shaped stone signs and each of them goes through the historical and natural places of Mallorca to the monastery of Lluc. Each route has a short description on the Cami de Lluc project website (in Catalan, Spanish, English and German). You can also buy a more detailed books for each of the routes and some music created to listen while you walk there.

--- Chunk #32 (Score: 1.3368) ---
"From ProCredit Bank's side we are extremely delighted to have had the chance to support Georgia's culture and inheritance of manuscripts. It's extremely rewarding to have had the chance to hand over this unique and interesting collection of ex librises to the National Centre of Manuscripts; that we had the opportunity to obtain these very interesting examples of Georgian culture and history. By handing this collection today to the National Centre of Manuscripts we also, one more time, want to demonstrate our support for the development of Georgian culture. All in all I think it's a very promising beginning for a hopefully fruitful and long-lasting relationship with the National Centre of Manuscripts," said Sascha Ternes, General Director of JSC ProCredit Bank. "In

the National Centre of Manuscripts there are manuscripts, historical documents, archival materials and library collections. This is one of the largest collections across the country.

--- Chunk #33 (Score: 1.3371) ---
You can skip ahead to the stairs which will take you to the second floor which will break down modern cultures in central america by exhibiting large scale models, and tribal pieces and artifacts of all shapes, sizes and functions. However, most people find that they are just too eager to see what the Mayan and Aztec portions of the museum have to offer. After all, they were immense empires that were brought to their ends very suddenly. If there is one, or two, parts of the museum in which you´ll wish you´d of brought your camera, they are it. It´s really hard to do the stone and exquisite artifacts justice with words, but in short, they are epic. They say so much about the intelligence and devotion that the people who made them had.

--- Chunk #34 (Score: 1.3415) ---
A "well-off," "motivated" and "knowledgeable" man spent over 13,411 yuan (1,963 U.S. dollars) in the first half of the year on Ximalaya FM, a popular audiobook platform in China, with favorite books including "Harry Potter and the Order of the Phoenix" and "Poor Charlie's Almanack." Such is the portrait of the user with the largest spend on Ximalaya FM during the period, which was unveiled in a report released by the think tank TopKlout in late July. Riding high on the momentum of audiobooks and e-books, along with CITIC Press Group, the app epitomizes the ever-changing and evolving industry, as well as the way alternative reading methods are injecting new life into books and the way they are received. "We've accumulated 470 million users during the six years since founding," said Wu Ting, from the public relations department of Ximalaya FM.

--- Chunk #35 (Score: 1.3415) ---
Palazzo Leopardi at the southern edge of town, where he was born and brought up, holds memorabilia, manuscripts and his fascinating library. Around every corner, plaques mark spots referred to in his poems. The museum in Villa Colloredo-Mels, a splendid 18th century villa on the edge of the town centre, holds Recanati's greatest art treasure, a room with four of Lorenzo Lotto's finest pictures, including a most haunting Annunciation packed with almost breathless narrative detail - a high spot in any art-lover's tour of the central Marche. Recanati was also the home town of the great tenor, Beniamino Gigli and the Museo Gigli in the Palazzo Comunale, or town hall, on central Piazza Leopardi holds a collection of his costumes from some 30 operas, a mock-up of his dressing-room and some of the many presents he received, including a walking stick from Verdi.

--- Chunk #36 (Score: 1.3422) ---
40-96, 142-45). The De Varia Commensuracion para la Esculptura, y Architectura (1585-7) - which covers in its four books geometry, human anatomy, the proportions of quadrupeds & birds, as well as classical architecture & contemporary Spanish metalwork - was the "most frequently republished" and consulted treatise on artistic practice and theory in Spain up to the turn of

the 19th century (see Bonet Correa, p. 145), appearing in ten editions, the early ones being very rare. Its continuing influence has been recognized by its widespread inclusion in libraries of early Hispanic artists on both sides of the Atlantic, characterized by a "masiva presencia de Vitrubios, Vignolas, Serlios y Arfes" (Soler I Fabregat, p. 149 and passim). The painters Diego Velázquez and Alonso Cano are but a few known to have owned a copy of Arfe (Fajardo, 88-90).

--- Chunk #37 (Score: 1.3443) ---
The Shadows of Ghadames (Delacorte), by Joëlle Stolz, is set 800 years later in Libya, yet 12-year-old Malika finds herself in a similar situation. She longs to travel and study like her father and brother do, but as a Muslim female, she isn't allowed. When an injured man in trouble is taken into her home, however, her world broadens a bit more. A retelling of Miguel de Cervantes' Tales of Don Quixote (Tundra) packs the title character's deeds into 200-odd pages, just one-fifth of the original work. Barbara Nichol's treatment, however, captures the spirit of the aging knight-errant determined to right all the wrongs-some imagined, some not-that he comes across. The adventures of the orphaned Stephen Lansbury are, on the whole, less imaginary but just as bizarre.

--- Chunk #38 (Score: 1.3449) ---
Het nieuwe huishouden van Fran mag dan niet traditioneel zijn en soms heel lastig, toch weet ze zeker dat ze het niet anders zou willen doen. 'Living with Fran', vanaf zondag 11 juni, 17.00 - 17.30 uur, RTL 4. Today Fran arrived at my doormat, together with 2(!) other books…Which makes the count of ringbooks that arrived here in 3 days: 7…I think I'll need to ask my boss for a reading leave-of-absense. Anyway, although not all the stories were equally entertaining I enjoyed reading the book. It was really written in her voice, like Mirre said! I can't wait to read the other book! Thanks for re-opening the ring E-mile! I'll send it to Yinny asap! Found it in the mailbox yesterday! Thank you, E-mile for sharing this book and Enitnaj for sending this book!

--- Chunk #39 (Score: 1.3450) ---
That's just one reason why I love it and why it's here. When I was at primary school, my Mum was doing a course which involved going to the library a lot to use the computers; this was the 90s after all and we didn't have one at home yet. When I went with her after-school, I would have the entire run of the Kids' section, which was huge to a 7 year old. It was filled with squashy beanbags in reading nooks and was decorated with brightly painted animals on the walls. It really was a special place. Whilst there I read so many books, but one set that stood out was a set all about Wizziwig the Witch by Geraldine McCaughrean. I've mentioned them in a previous post but I never see these books anymore so they're probably out of print.

--- Chunk #40 (Score: 1.3453) ---
The intellectual pride of the Gnostics changed the gospel into a philosophy. The clue to the understanding of Gnosticism is found in the Greek word from which its name is derived - gnōsis, "knowledge." The Gnostics claimed to be the elite, the wise, the philosophers, to whom was revealed a secret knowledge which the

overwhelming mass of mankind could never know. [Renwick #2]. Until the middle of the twentieth century, most information concerning Gnosticism came from the church fathers who opposed it. However, in 1945 a collection of Gnostic scrolls were discovered at Nag Hammadi in Upper Egypt which shed more light on this teaching. This discovery confirmed the accuracy of the church fathers in addressing this subject.

--- Chunk #41 (Score: 1.3491) ---
The painters Diego Velázquez and Alonso Cano are but a few known to have owned a copy of Arfe (Fajardo, 88-90). "The success of the Varia in Spain and in Latin America was extraordinary, being a compendium in a single volume of distinct fields of artistic and scientific knowledge, the borders of which were not at the time established with the same categorical precision as they are today" (Bonet Correa, 157). Books Two and Four are the two most historically influential parts of the Varia. Book Two, on human anatomy, is divided into four subchapters on proportion, osteology, myology and foreshortening of the human figure. Arfe claims here a number of influences, including Dürer's treatise on proportion (1528) and Juan Valverde de Amusco's interpretations of Vesalius' Fabrica, but he also mentions the artists Pollaiuolo, Baccio Bandinelli, Raphael, Donatello, Mantegna, Michelangelo and the Spaniards Pedro Berruguete and Gaspar Bezerra (ff. 1v-2v).

--- Chunk #42 (Score: 1.3495) ---
City of art, architecture, handicrafts and sweets. We start to explore the city by visiting Khaju and Sio Se Pol Bridge over Zayande River. Then Menar Jonban (Shaking Minarets), Vank Cathedral and Atashgah Fire temple. Naghsh-e jahan Square, Sheikh lotfolah Mosque, Shah mosque Ali Qapu Palace are our today's destination (All in UNESCO World Heritage list). Gheysariyeh gate way would be last place to visit, where you can buy souvenirs. From Isfahan we set off to a desert called Varzaneh and a village with the same. We have lunch then start hiking on the sand hills. We will visit Ghoortan Castle and in the night we'll gaze at the stars and the sky of the desert. Driving to Meybod, Narrin Castle, oldest mudbrick structure in Iran.

--- Chunk #43 (Score: 1.3523) ---
8 Write you also for the Jews, as it likes you, in the king' name, and seal it with the king' ring: for the writing which is written in the king' name, and sealed with the king' ring, may no man reverse. 9 Then were the king' scribes called at that time in the third month, that is, the month Sivan, on the three and twentieth day thereof; and it was written according to all that Mordecai commanded to the Jews, and to the lieutenants, and the deputies and rulers of the provinces which are from India to Ethiopia, an hundred twenty and seven provinces, to every province according to the writing thereof, and to every people after their language, and to the Jews according to their writing, and according to their language.

--- Chunk #44 (Score: 1.3530) ---
Gehry's remarks perform a familiar refrain in contemporary architecture;

acknowledging the disappearance of women from the profession and their under-representation amongst leaders, yet without an accompanying discussion of the structural forces producing absence and loss. Zaha Hadid's unusual advancement is causally attributed to her own determination. Slipping between the roundtable on identity and the obituary pages I fell through a crack in time. Zaha Hadid has entered history, but the voice and beliefs of the profession that shimmers in these pages betrays an antiquated investment in mythic narratives.

--- Chunk #45 (Score: 1.3536) ---
Some of these illustrations depict surviving works by Arfe, while others are taken to be designs for lost or still unidentified pieces. It should be noted that while Arfe - despite the popularity of his treatise - perhaps was unable in his time to elevate his craft as a theoretically complex art alongside painting, sculpture and architecture, in recent times, art-historical research has vindicated his contention that metalwork of the highest quality should be prized not only for its pure material value and symbolic-liturgical importance, but also for its participation in the wider debates about the nature of representation, the supremacy of panting vs. sculpture vs. architecture, etc. Books One, Two and Four of the Varia are dated 1585 on their colophons, while Book 3 is dated 1587.

--- Chunk #46 (Score: 1.3537) ---
Having read numerous books on philosophy and religion, both Western and Eastern, he reportedly felt dissatisfied, being convinced that these could not lead him to truth. One day, a Seon monk gave Seongcheol a copy of The Song of Attainment of the Tao (Hangul: , Hanja:), a Seon text written by Yeongga Hyeon-gak ( ) in the Tang dynasty. Seongcheol felt as if "a bright light had suddenly been lit in complete darkness," and that he had finally found the way to the ultimate truth. Immediately, he started meditating on the "Mu" gong-an (Japanese: koan) and started ignoring all his responsibilities at home. Deciding that his parents' house had too many distractions, he promptly packed his bags and went to Daewonsa (Daewon temple). After obtaining permission to stay in the temple, the young Seongcheol started to meditate intensively.

--- Chunk #47 (Score: 1.3542) ---
What he had learned from his work on the cathedral of Cologne he used in designs of his own with the same fine skill and energy. His best building is probably the church of St. Apollinaris at Remagen, to which, however, the same objection of monotony of plan has been made. He also built a church at Mulheim on the Rhine, and one at Elberfeld. He restored the castle of Argenfels on the Rhine, built the castle of Herdringen in the style of the ancient fortress castles on the Rhine for Count von Fürstenberg, and also the castle of Moyland near Cleves. His last work was the synagogue at Cologne. MLA citation. Gietmann, Gerhard. "Ernst Friedrich Zwirner." The Catholic Encyclopedia. Vol. 15. New York: Robert Appleton Company, 1912. <http://www.newadvent.org/cathen/15775a.htm>. Fiction by Brenda Lozano translated from the Spanish by Alice Whitmore. There are thirty-three mosquito bites on his legs.

--- Chunk #48 (Score: 1.3584) ---
Arfe illustrates the classical Orders based on Serlio, adding a sixth 'Attic' order, and treats various aspects of architectural ornament. At the time of its publication, the Varia was only the second original architectural treatise composed in Spanish - following Diego de Sagredo's famed Medidas del Romano (1526) and derivative works of translation such as Villalpando's Tercero y Quarto libro de Serlio (1552), Zamorano's Diez Libros de Architectura of Alberti (1582), Miguel de Urrea's Vitruvio (1582) (Fajardo, 130; Bonet Correa, 158). "Arfe's treatise, with its more timeless character, transcended its own era" (Bonet Correa, 158). Although the Medidas del Romano of Diego Sagredo appeared in three Spanish editions and further French and Portuguese translations, its emphasis on the 'Plateresque' style of architecture contributed to the waning of its popularity during the 17th century, even as the popularity of Arfe's treatise increased.

--- Chunk #49 (Score: 1.3587) ---
It started with eleven galleries, and has been gradually enlarged in later renovation stages the 25th gallery was inaugurated in 1984. It contains a very big variety of coins from different countries. The collection, which covers the period from the 3rd century BC to the 7th century AD, is a fascinating record of civilization in the process of change as religions merged and society evolved. Also the museum contains hundreds of precious antiques. Then proceed to visit the catacomb of Kom El-Shuqafa which is one of Alexandria most memorable monuments. Kom El-Shuqafa meaning "Mound of Shards" or "Potsherds." Its actual ancient Egyptian name was Ra-Qedil. The catacombs are unique both for their plan and for its decoration which represents a melding and mixing of the cultures and traditions of the Egyptians, Greeks and Romans.

--- Chunk #50 (Score: 1.3593) ---
In addition to the Varia, Arfe published Quilatador de plata, oro y piedras (1572) and Descripción de la traça y ornato de la custodia de plata de la Sancta Yglesia de Sevilla (1587), both short tracts on metalwork. The present copy, intriguingly, carries the apparent signature of Arphe himself on the bottom margin of the title page. This exact signature is also present in the same location in copies now at the Biblioteca Nacional de España and the Biblioteca de Castilla y Léon (effaced), a detail which might shed further light on the early publication history of the Varia. * Palau 16055; Adams A2003; CCBE s. XVI A2101; Salvá 2556; L. Choulant, Anatomic Illustration, M. Frank, trans., pp. 218-21; J. L. C. Fajardo, Perceptiva gráfica de Juan de Arfe: Análisis y transcendecia de su Teoría Artística sobre la figura humana, esp. pp.

```python
# Cell 4: Run QA over top-k chunks and select the best answer
from transformers import pipeline

# Load QA model
print("Loading QA model: 'deepset/roberta-base-squad2'...")
```

```
qa_pipeline = pipeline("question-answering", model="deepset/
    ↪roberta-base-squad2", tokenizer="deepset/roberta-base-squad2")
print("QA model loaded.\n")
```

Loading QA model: 'deepset/roberta-base-squad2'…

Device set to use cuda:0

QA model loaded.

```
[12]: def get_best_answer_from_chunks(question, top_chunks):
          answers = []

          print(f"Evaluating QA over top {len(top_chunks)} chunks...\n")

          for i, (chunk, score) in enumerate(top_chunks):
              result = qa_pipeline(question=question, context=chunk)
              result["chunk_index"] = i
              result["retrieval_score"] = score  # similarity from FAISS
              answers.append(result)

              print(f"Chunk {i + 1} Answer: {result['answer']} | Score:␣
    ↪{result['score']:.4f}")

          # Choose the answer with the highest QA confidence score
          best_answer = max(answers, key=lambda x: x['score'])

          print("\nBest Answer Chosen:")
          print(f"Answer: {best_answer['answer']}")
          print(f"Confidence Score: {best_answer['score']:.4f}")
          print(f"From Chunk #{best_answer['chunk_index'] + 1}")
          return best_answer

      # Example usage:
      sample_question = questions_df.iloc[0]['question']  # same as Cell 2
      print(sample_question)
      best_answer_result = get_best_answer_from_chunks(sample_question, top_chunks)
```

You seem to be using the pipelines sequentially on GPU. In order to maximize efficiency please use a dataset

How many scrolls were in the grand library of Zandoria?
Evaluating QA over top 50 chunks…

Chunk 1 Answer: ex librises | Score: 0.0000
Chunk 2 Answer: 1032 | Score: 0.0000
Chunk 3 Answer: 2 | Score: 0.0000
Chunk 4 Answer: eleven | Score: 0.0041
Chunk 5 Answer: Fantastic | Score: 0.0001
```

Chunk 6 Answer: over 50,000 | Score: 0.4578
Chunk 7 Answer: 3000 | Score: 0.0069
Chunk 8 Answer: 72-2; Bonet Correa, 159 | Score: 0.0001
Chunk 9 Answer: ex librises | Score: 0.0000
Chunk 10 Answer: 8 | Score: 0.0002
Chunk 11 Answer: three floors where the pottery is on display. | Score: 0.0000
Chunk 12 Answer: 8254 | Score: 0.0000
Chunk 13 Answer: 13 | Score: 0.0170
Chunk 14 Answer: 3 | Score: 0.0000
Chunk 15 Answer: Venice Museum Mile project. | Score: 0.0000
Chunk 16 Answer: 224 | Score: 0.0015
Chunk 17 Answer: Octopus | Score: 0.0000
Chunk 18 Answer: From Ashes Into Light. | Score: 0.0000
Chunk 19 Answer: 30 | Score: 0.0000
Chunk 20 Answer:    | Score: 0.0000
Chunk 21 Answer: Xerxes | Score: 0.0000
Chunk 22 Answer: 201 | Score: 0.0000
Chunk 23 Answer: four | Score: 0.0038
Chunk 24 Answer: 1395 and was a pivotal location for the Joseon Dynasty. | Score: 0.0000
Chunk 25 Answer: 3 | Score: 0.0000
Chunk 26 Answer: 2 | Score: 0.0000
Chunk 27 Answer: Georgian manuscripts | Score: 0.0000
Chunk 28 Answer: rows upon rows | Score: 0.0000
Chunk 29 Answer: forty | Score: 0.0001
Chunk 30 Answer: 10 | Score: 0.0000
Chunk 31 Answer: seven | Score: 0.0000
Chunk 32 Answer: ex librises | Score: 0.0001
Chunk 33 Answer: one, or two | Score: 0.0000
Chunk 34 Answer: 13,411 | Score: 0.0000
Chunk 35 Answer: four | Score: 0.0000
Chunk 36 Answer: four | Score: 0.0119
Chunk 37 Answer: 200 | Score: 0.0000
Chunk 38 Answer: 7 | Score: 0.0010
Chunk 39 Answer: huge to a 7 year old. | Score: 0.0000
Chunk 40 Answer: Gnostic | Score: 0.0000
Chunk 41 Answer: 157 | Score: 0.0001
Chunk 42 Answer: lotfolah | Score: 0.0000
Chunk 43 Answer: twenty and seven | Score: 0.0000
Chunk 44 Answer: mythic narratives | Score: 0.0000
Chunk 45 Answer: 1585 on their colophons, while Book 3 | Score: 0.0000
Chunk 46 Answer:    | Score: 0.0000
Chunk 47 Answer: thirty-three | Score: 0.0000
Chunk 48 Answer: 130 | Score: 0.0000
Chunk 49 Answer: eleven | Score: 0.0009
Chunk 50 Answer: 16055 | Score: 0.0002

Best Answer Chosen:

```
Answer: over 50,000
Confidence Score: 0.4578
From Chunk #6
```

[13]:
```python
import re
from sklearn.metrics import precision_score, recall_score, f1_score

def compute_token_f1(predicted_answer, context):
    """
    Computes token-level F1 score by comparing predicted answer to all sentences
    in the retrieved context. Finds the sentence with the best token F1 overlap.

    Returns:
        (f1, best_matched_sentence)
    """
    if not predicted_answer.strip():
        return 0.0, "N/A"

    def tokenize(text):
        return re.findall(r'\w+', text.lower())

    pred_tokens = set(tokenize(predicted_answer))
    if not pred_tokens:
        return 0.0, "N/A"

    best_f1 = 0.0
    best_sentence = ""

    for sentence in sent_tokenize(context):
        sent_tokens = set(tokenize(sentence))
        if not sent_tokens:
            continue

        common = pred_tokens & sent_tokens
        if not common:
            continue

        precision = len(common) / len(pred_tokens)
        recall = len(common) / len(sent_tokens)
        if precision + recall == 0:
            continue
        f1 = 2 * precision * recall / (precision + recall)

        if f1 > best_f1:
            best_f1 = f1
            best_sentence = sentence
```

```python
        return best_f1, best_sentence if best_sentence else "N/A"
```

```python
[14]: import pandas as pd

      # Store results
      all_results = []

      # Loop over all questions
      for idx, row in tqdm(questions_df.iterrows(), total=len(questions_df),␣
        ↪desc="Evaluating all questions"):
          question_id = row['id'] if 'id' in row else idx
          question = row['question']

          # Step 1: Retrieve relevant chunks
          top_chunks = retrieve_top_k_chunks(question)

          # Step 2: Run QA and pick best answer
          best_answer_result = get_best_answer_from_chunks(question, top_chunks)

          # Step 3: Compute token-F1 against matched sentence in context
          context_text = top_chunks[best_answer_result['chunk_index']][0]
          f1_score, matched_sentence = compute_token_f1(best_answer_result['answer'],␣
        ↪context_text)

          # Step 4: Store results
          all_results.append({
              "Question ID": question_id,
              "Question": question,
              "Predicted Answer": best_answer_result['answer'],
              "Confidence Score": best_answer_result['score'],
              "Retrieval Similarity": best_answer_result['retrieval_score'],
              "Best-Matched Sentence": matched_sentence,
              "Token-Level F1": round(f1_score, 4)
          })

      # Convert to DataFrame
      results_df = pd.DataFrame(all_results)

      # Display first few results
      from IPython.display import display
      print("\n Final Results Table (first 10 rows):")
      display(results_df.head(10))

      # Optional: Save to CSV
      results_df.to_csv("qa_results.csv", index=False)
      print("\nResults saved to 'qa_results.csv'.")
```

```
Evaluating all questions:  10%|          | 2/20 [00:00<00:01, 13.89it/s]
```

Encoding question: "How many scrolls were in the grand library of Zandoria?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('The first is the Elene Akhvlediani ex libris, the second is the
Sergo Kobuladze ex libris. We did not have a separate collection of ex librises
until now. Of course there are such materials in archives and in books, but so
far we have not had such an amount of ex librises," he said. "Ex librises were
invented along with book printing and were an integral part of a book through
the ages. Today, some of them are considered works of art. That is why
participation in such a project is very important for ProCredit Bank, and we are
very pleased that this unique ex libris collection has been added to the
heritage of Georgian manuscripts," said Sascha Ternes, General Director of JSC
ProCredit Bank.', 1.1369743)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1370) ---
The first is the Elene Akhvlediani ex libris, the second is the Sergo Kobuladze
ex libris. We did not have a separate collection of ex librises until now. Of
course there are such materials in archives and in books, but so far we have not
had such an amount of ex librises," he said. "Ex librises were invented along
with book printing and were an integral part of a book through the ages. Today,
some of them are considered works of art. That is why participation in such a
project is very important for ProCredit Bank, and we are very pleased that this
unique ex libris collection has been added to the heritage of Georgian
manuscripts," said Sascha Ternes, General Director of JSC ProCredit Bank.

--- Chunk #2 (Score: 1.1679) ---
This new view on aspects of the Ghaznavid and Seljuk dynasties concentrates on
the relationship of the panegyric poets Farrukhi Sistani (c.995-1032) and
Mu'izzi (c.1045-1127) to the Ghaznavid and Seljuk rulers and dignitaries for
whom they wrote. Dr Tetley investigates the reliability of the historical
information which may be gathered from the poems, and draws comparisons with
other historical sources. A solid and impressive work of learning, of interest
to scholars in Oriental Studies, Medieval Literature, and History, The Ghaznavid
and Seljuk Turks: Poetry as a Source for Iranian History, is the first extended
English study of Mu'izzi it presents much new material concerning both this
little-studied poet and also the better-known Farrukhi. Additionally, there is a
valuable exploration of the relationship between Persians and Turks, a highly
significant factor during the rule of the two dynasties.

--- Chunk #3 (Score: 1.1700) ---
Zaria ("dawn") was both the name of one of the mission communications systems,
and used as callsigns for the ground stations. The Zaria communications system
was designed by NII-695, led by their Chief Designer Yuriy Sergeyevich Bykov,
who was present at the Zaria-1 ground station at the launch site. This Stunning
2 Pc. Sectional is shown in High Performance Fabric. Available in other Fabrics
and Leathers. Other Pieces Available. Water Repellent. High Wear and Tear
Resistance. High Rubbing Resistance. Everlasting Vibrant Colours. The following

designs encompass several years of experimenting with glass colors and shapes in order to showcase a variety of bracelets. As in all of my other torch-fired pieces, each bracelet is created by melting sticks of Murano glass then shaping free-form with an oxygen/propane torch (please click the handcrafted process tab to learn more).
Evaluating QA over top 3 chunks…

Chunk 1 Answer: ex librises | Score: 0.0000
Chunk 2 Answer: 1032 | Score: 0.0000
Chunk 3 Answer: 2 | Score: 0.0000

Best Answer Chosen:
Answer: ex librises
Confidence Score: 0.0000
From Chunk #1
Encoding question: "Where can the bluefire crystal be found?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('A similar inquiry is made by a non-profit statewide bar association. stated in 88-F-115, to its lawyer referral service program. This 17th day of January , 1989. The rare bluefire crystal can only be found in the caves of Mount Eldoria and emits a faint glow in the dark. UPVC double glazed obscured sash windows to front elevation, flat ceiling, stairs to first-floor, radiator. Pedestal wash hand basin, close coupled WC, tiling to half wall, radiator. Flat ceiling with inset spotlighting, UPVC double glazed sash window to side elevation, UPVC double glazed window and sliding door to rear garden. Fitted with a range of base cupboard and matching eye level units, wooden work surface and butler sink with mixer tap, plate rack, feature chimney breast and surround with recess for range style oven, space for fridge/ freezer, tiled flooring, larder cupboard.', 0.48827982)

Top retrieved chunks:

--- Chunk #1 (Score: 0.4883) ---
A similar inquiry is made by a non-profit statewide bar association. stated in 88-F-115, to its lawyer referral service program. This 17th day of January , 1989. The rare bluefire crystal can only be found in the caves of Mount Eldoria and emits a faint glow in the dark. UPVC double glazed obscured sash windows to front elevation, flat ceiling, stairs to first-floor, radiator. Pedestal wash hand basin, close coupled WC, tiling to half wall, radiator. Flat ceiling with inset spotlighting, UPVC double glazed sash window to side elevation, UPVC double glazed window and sliding door to rear garden. Fitted with a range of base cupboard and matching eye level units, wooden work surface and butler sink with mixer tap, plate rack, feature chimney breast and surround with recess for range style oven, space for fridge/ freezer, tiled flooring, larder cupboard.

--- Chunk #2 (Score: 0.8803) ---
Since you all were so helpful with my vanadinite, I was hoping you might help me identify this crystal. I'm interested in the tiny blue speck the size of a grain

of rice. I found it on the side of a mountain in Montana near Bozeman a bunch of years back. It was Ina large chunk of what I assumed to be granite. I chipped out the little piece you see here with the aid on another large rock and some significant luck. The blue crystal is somewhat faceted. I've always held out hope that I had found a Montana sapphire, but I was never sure. Since it's so tiny, I know it isn't worth anything, but I thought it was beautiful nonetheless. any ideas? Thanks! Definitely not sapphire, looks like a bit of mineral stain in the quartz (not sure what it is).

--- Chunk #3 (Score: 0.9737) ---
Definitely not sapphire, looks like a bit of mineral stain in the quartz (not sure what it is). Sapphires are going to be further north and northwest, up past Anaconda, by Philipsburg. Here's an example of rough sapphires from the area. Thanks for that. This crystal is a much brighter blue than what's in your link. I could see how you might think that the quartz is stained with my lousy picture. The blue piece seems to be its own crystal, and "separate" from the quartz, if that description makes any sense to you. The quartz is also very milky, and the blue crystal is actually kind of clear, although it is quite difficult to see. I live in Bozeman, and have buckets of rocks I've picked up. Evaluating QA over top 3 chunks…

Chunk 1 Answer: caves of Mount Eldoria | Score: 0.3747
Chunk 2 Answer: Montana | Score: 0.0018
Chunk 3 Answer: Bozeman | Score: 0.0057

Best Answer Chosen:
Answer: caves of Mount Eldoria
Confidence Score: 0.3747
From Chunk #1
Encoding question: "In what year did Dr. Helena Carter win the Nobel Prize?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('I am dying to go back! We swam along the secluded shores as wild horses roamed behind us. Also, fun fact: Cumberland Island is also home to the chapel where JFK Jr. and Carolyn Bessette Kennedy were wed! Have you visited any of these islands before? If so, what am I leaving out? Leave a comment below about your favorite inexpensive thing to do on vacation! Noble Prize winner Baruch Blumberg will present the 2009 Saxon Graham lecture on April 16. BUFFALO, N.Y. -- Baruch S. Blumberg, M.D., Ph.D., winner of the 1976 Nobel Prize in Medicine for discovery of the hepatitis B virus (HBV), will present a talk on "The Adventure of Science and Discovery," April 16 at 5 p.m. in Butler Auditorium in Farber Hall on the University at Buffalo\'s South (Main Street) Campus. Blumberg has had a major impact on worldwide public health throughout his career.', 1.1964982)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1965) ---
I am dying to go back! We swam along the secluded shores as wild horses roamed

behind us. Also, fun fact: Cumberland Island is also home to the chapel where JFK Jr. and Carolyn Bessette Kennedy were wed! Have you visited any of these islands before? If so, what am I leaving out? Leave a comment below about your favorite inexpensive thing to do on vacation! Noble Prize winner Baruch Blumberg will present the 2009 Saxon Graham lecture on April 16. BUFFALO, N.Y. -- Baruch S. Blumberg, M.D., Ph.D., winner of the 1976 Nobel Prize in Medicine for discovery of the hepatitis B virus (HBV), will present a talk on "The Adventure of Science and Discovery," April 16 at 5 p.m. in Butler Auditorium in Farber Hall on the University at Buffalo's South (Main Street) Campus. Blumberg has had a major impact on worldwide public health throughout his career.

--- Chunk #2 (Score: 1.2106) ---
Alumnus James Orbinski accepted the Nobel Peace Prize in 1992 on behalf of Doctors Without Borders as the organization's president. Prominent alumni in the field of science include Douglas L. Coleman, who discovered leptin; Richard Bader, noted for his work on the atoms in molecules theory; Harold E. Johns, who pioneered the use of cobalt-60 in the treatment of cancer, Karl Clark, who pioneered the separation method to extract bitumen from the oil sands; Steve Mann, a researcher and inventor in the field of computational photography; Peter R. Jennings, computer programmer and developer of Microchess; and Simon Sunatori, an engineer and inventor. Notable faculty members include chemist Ronald Gillespie, who helped shape VSEPR theory, as well as David Sackett and Gordon Guyatt, whose research team was credited for establishing the methodologies used in evidence-based medicine.

--- Chunk #3 (Score: 1.2205) ---
Her cells spawned unimaginable scientific oppurtunity. We decoded the human chromosome, developed gene mapping, better understood bacteria, hormones, viruses (like polio), help treat diseases (like Herpes, Parkinson's, AIDS), helped treat cancel, jumpstarted cloning, genetics and various forms of radiation treatments. Eleven thousand medical patents have been awarded as a direct consequence of HeLa cells. It was not long till HeLa cells caught the attention of the media. John Hopkins was questioned to which patient these cells originated from. He attempted to throw off the media by providing the misleading name of Helene Lane. Might I say, not a very creative cover. In 1976, after 25 years of deception and lies, Rolling Stone magazine published the true story. That is when Lacks' family found out about Henrietta Lacks' amazing contribution.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: 1976 | Score: 0.0000
Chunk 2 Answer: 1992 | Score: 0.0000

 Evaluating all questions: 20%| | 4/20 [00:00<00:01, 15.45it/s]

Chunk 3 Answer: 1976 | Score: 0.0000

Best Answer Chosen:
Answer: 1992

Confidence Score: 0.0000
From Chunk #2
Encoding question: "What is the national bird of Veridonia?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('However, unification is not something which should, or indeed could, be forced upon the public. It is a long-term endeavour which depends for its successful outcome upon a carefully planned law reform programme which seeks community participation and support. How customary is African customary law? The national bird of the fictional country of Veridonia is the emerald falcon, known for its vibrant green feathers. Doris and her late husband Buddy Williams co-founded Merrifield Garden Center in the spring of 1971 with their good friends and neighbors, Bob and Billie Jean Warhurst. Over the years, Doris has literally done it all, helping customers, purchasing products for the store, designing the store layout and even stocking the shelves.', 0.99093866)

Top retrieved chunks:

--- Chunk #1 (Score: 0.9909) ---
However, unification is not something which should, or indeed could, be forced upon the public. It is a long-term endeavour which depends for its successful outcome upon a carefully planned law reform programme which seeks community participation and support. How customary is African customary law? The national bird of the fictional country of Veridonia is the emerald falcon, known for its vibrant green feathers. Doris and her late husband Buddy Williams co-founded Merrifield Garden Center in the spring of 1971 with their good friends and neighbors, Bob and Billie Jean Warhurst. Over the years, Doris has literally done it all, helping customers, purchasing products for the store, designing the store layout and even stocking the shelves.

--- Chunk #2 (Score: 1.0550) ---
9. Recently, a team of Archaeologists have discovered 1,200 year old long-lost city in which of the following country? 10. Recently, the Wildlife Institute of India (WII), has been granted permission for satellite tracking of which of following bird species? The Great Indian Bustard, one of the endangered flying bird species in the world, will soon be tracked by satellite by the Wildlife Institute of India to understand the movement of this rare bird and its preferred habitat. The move is viewed as a major push towards saving the dwindling population of the species from hunting and loss of its habitat, primarily in Rajasthan and Gujarat, besides few other Indian states like Maharastra, Karnataka and Andhra Pradesh. nice & very good. but plz dont script any day. Explanation to answer 9 is incomplete. Pls do the needful.

--- Chunk #3 (Score: 1.1641) ---
This bird has been written off for a long while now and many have said it is only a matter of time before it becomes extinct, but due to conservation action things are slowly turning around for the condor and its numbers are rising. The Great Indian Bustard is extremely likely to become extinct sooner rather than later. Its favoured habitats are dry grasslands and scrublands, and the threats

to the bird are environmental degradation, habitat loss and hunting. Standing at up to 1.2m tall, and one of the world's heaviest natural flying machines, it is an easy target for hunters and poachers alike. The red-crowned crane is now legally protected across its range. International cooperation is being sought throughout its flyway to protect the birds' habitat - especially at breeding times. The crane is also an emblem for good fortune.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: emerald falcon | Score: 0.6662
Chunk 2 Answer: Great Indian Bustard | Score: 0.1867
Chunk 3 Answer: condor | Score: 0.0125

Best Answer Chosen:
Answer: emerald falcon
Confidence Score: 0.6662
From Chunk #1
Encoding question: "What was the name of the first space station of the Andromeda Federation?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ("The game starts out with a choice of warframe. You have 3 to choose from and a few options on starting weapons. Then you begin the tutorial which does a decently good job at teaching you the basics. After the starting quests you are then given access to travel about the solar system. Much like our own but with a few additions that color this fictionalized version. This is not an open space game but you do access navigation by walking to the front of your ship and making destination selections through a holographic version of the solar system. You pick a planet and it will show the mission types available. You start on the planet mercury and you've got to do missions to unlock other planets. Within your ship, there are a handful of items to interact with.", 1.2354631)

Top retrieved chunks:

--- Chunk #1 (Score: 1.2355) ---
The game starts out with a choice of warframe. You have 3 to choose from and a few options on starting weapons. Then you begin the tutorial which does a decently good job at teaching you the basics. After the starting quests you are then given access to travel about the solar system. Much like our own but with a few additions that color this fictionalized version. This is not an open space game but you do access navigation by walking to the front of your ship and making destination selections through a holographic version of the solar system. You pick a planet and it will show the mission types available. You start on the planet mercury and you've got to do missions to unlock other planets. Within your ship, there are a handful of items to interact with.

--- Chunk #2 (Score: 1.2743) ---
It's more like a business. Put in your 4-6 years and your $100K-$250K and if you've played your cards right, you have income for life. But the only way this

32

can work is if there is some entrance fee. Gotta keep it exclusive in some way. There aren't enough Camaros to go around. The first space station of the Andromeda Federation, called Nexus-1, was launched in 2142. First, install the dependencies. This is for Ubuntu Server 14.04. Create a new file (e.g. launch-spot.py) and give it exec permissions (chmod +x launch-spot.py). The script is less than 200 lines long and should be readable from top to bottom. Set your Amazon AWS access keys as environment variables. Or you can read the boto documentation to find out how to store the keys in configuration files. Waiting for launch . . . . . . Waiting for instance to boot . .

--- Chunk #3 (Score: 1.2781) ---
Now, Germany is standing strong and is calling the political shots in Europe - strengthened by its robust economy - to the point of pushing for a prolonged cure of austerity for the anemic European economy. Repeated calls for "pro growth" stimulus measures - by pausing the state debt reduction programs - by some leaders from France, Italy, Spain or, indeed, Greece are stifled by a comfortable cushion of conservative consent. Only the European Central Bank has managed to overcome German resistance to implement is expansionary monetary policies as a way of providing breathing space in the economy while the national coffers remain shut. For example, 1990-037A is the Space Shuttle Discovery on mission STS-31, which carried the Hubble Space Telescope (1990-037B) into space. This launch was the 37th known successful launch worldwide in 1990.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: mercury | Score: 0.0000
Chunk 2 Answer: Nexus-1 | Score: 0.9778
Chunk 3 Answer: Hubble | Score: 0.0000

Best Answer Chosen:
Answer: Nexus-1
Confidence Score: 0.9778
From Chunk #2
Encoding question: "What is Lake Virelia famous for?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('"The greater part of the vast area contained in the bed of this immense lake, is certainly dry on the surface, and consists of a mixture of sand and mud, of so soft and yielding a character, as to render perfectly ineffective all attempts either to cross it, or reach the edge of the water, which appears to exist at a distance of some miles from the outer margin. On one occasion only was I able to taste of its waters; in a small arm of the lake near the most north-westerly part of it, which I visited, and here the water was as salt as the sea. The lake on its eastern and southern sides, is bounded by a high sandy ridge, with salsolae and some brushwood growing upon it, but without any other vegetation.', 0.98754555)

Top retrieved chunks:

--- Chunk #1 (Score: 0.9875) ---

"The greater part of the vast area contained in the bed of this immense lake, is certainly dry on the surface, and consists of a mixture of sand and mud, of so soft and yielding a character, as to render perfectly ineffective all attempts either to cross it, or reach the edge of the water, which appears to exist at a distance of some miles from the outer margin. On one occasion only was I able to taste of its waters; in a small arm of the lake near the most north-westerly part of it, which I visited, and here the water was as salt as the sea. The lake on its eastern and southern sides, is bounded by a high sandy ridge, with salsolae and some brushwood growing upon it, but without any other vegetation.

--- Chunk #2 (Score: 1.0567) ---
Among the imported objects held was a special place of vases of faience and copper. In the region of Halkida in Anthidona lies the Tomb of Salganea. The wetland of Psachna, otherwise, said, the Kolovrechtis, a coastal wetland created by a small river at the beginning of the valley looking at central Evia, which flows into the North Evian. Located 12 km north of Halkida, the Kolovrechtis Wetlands should be famed for the natural utopia it provides to hundreds of different plant and animal species. Amarynthos the natural harbor in the southern Gulf of Evia inhabited throughout the prehistoric and classical times until the Roman period (3000 BC - 1st century AD). The name of Amarinthos mentioned in Linear B tablets. ·Paleochora, evidence of Neolithic human activity. ·Macedonian tomb facade typousto way for Upper deeply. ·Roman Baths of Aliveri.

--- Chunk #3 (Score: 1.0789) ---
We did the 18km hike with one of my colleagues and it was just as impressive as everyone raved it was! The hike itself is a bit of a slog - you start with about 6km of steady uphill through the trees before you really get to any scenery. We stopped for a snack at the 6km mark and encountered one of our favourite birds, Gray Jays (or as they're known in BC, Whiskey Jacks), which don't need much enticing to eat straight out of your hand! The scenery improves a little after that and we hiked through some peaceful meadows before finally reaching gorgeous Garibaldi Lake. It's a glacial lake and has some of the clearest, blue-green water I've ever seen. It's surrounded by snow capped mountains with the Sphinx and Sentinel Glaciers on the far side of the lake.
Evaluating QA over top 3 chunks…

 Evaluating all questions: 30%| | 6/20 [00:00<00:00, 16.30it/s]

Chunk 1 Answer: The greater part of the vast area contained in the bed of this immense lake | Score: 0.0001
Chunk 2 Answer: natural utopia it provides to hundreds of different plant and animal species | Score: 0.0000
Chunk 3 Answer: glacial lake and has some of the clearest, blue-green water | Score: 0.0003

Best Answer Chosen:
Answer: glacial lake and has some of the clearest, blue-green water

Confidence Score: 0.0003
From Chunk #3
Encoding question: "When was 'Echoes of Tomorrow' first published?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ("He will be sharing how he got started, where he finds his
inspiration and what it's like to be a part of the Project Nursery Team. Next to
join the ladies will be Rachel Cedar from You Plus 2. Rachel coaches moms on
time management and how to juggle their busy lives while still remaining sane,
and she will be sharing her tips with us. She will also be sharing how she
manages to run a business and her household all while living in the city that
never sleeps. Have questions for Pam and Melisa or either of our guests but
can't join us live? Post your question below or on our Facebook page, and we'll
do our best to answer it during the broadcast. The novel 'Echoes of Tomorrow' by
Julian Spence was first published in 2035 and became an instant bestseller.",
0.965056)

Top retrieved chunks:

--- Chunk #1 (Score: 0.9651) ---
He will be sharing how he got started, where he finds his inspiration and what
it's like to be a part of the Project Nursery Team. Next to join the ladies will
be Rachel Cedar from You Plus 2. Rachel coaches moms on time management and how
to juggle their busy lives while still remaining sane, and she will be sharing
her tips with us. She will also be sharing how she manages to run a business and
her household all while living in the city that never sleeps. Have questions for
Pam and Melisa or either of our guests but can't join us live? Post your
question below or on our Facebook page, and we'll do our best to answer it
during the broadcast. The novel 'Echoes of Tomorrow' by Julian Spence was first
published in 2035 and became an instant bestseller.

--- Chunk #2 (Score: 1.1043) ---
"An emotional roller coaster…the story accelerates towards an inevitable, but
somehow unpredictable crescendo. It is gut wrenching and engrossing." Caroline
Leavitt is the New York Times and USA Today bestselling author of Is this
Tomorrow, Pictures of You, and 8 other novels. Pictures of You was a best Book
of the Year from the San Francisco Chronicle, the Providence Journal, Bookmarks
and Kirkus magazine. Is This Tomorrow was a Best Book of the Year from January
magazine, an Indie Next Pick, a San Francisco Chronicle Lit Pick, A Jewish
Bookcouncil Bookclub pick, and the winner of an Audiophile Earphones Award. A
Sundance Screenwriter's Lab finalist, she is also a 1990 recipient of a New York
Foundation of the Arts Fellowship and is a National Magazine Award nominee.
Chana Roberts is a mom and a product tester for Parenting Pod.

--- Chunk #3 (Score: 1.1225) ---
"Golden Silents." Nov. 21 at 7: "The Docks of New York" (1928, Joseph von
Sternberg; silent). A Tribute to Pierre Clémenti. Nov. 25 at 6:15: "Les Idoles"
(1968, Marc'o; in French). READINGS AND TALKS MCNAllY JACKSON BOOKS The sixties
vets Ed McClanhan, the author of the newly published autobiographical short

-story collec- tion "O the Clear Moment," and the novelist Robert Stone take a
look back at the consequential decade. (52 Prince St. No tickets necessary. Nov.
19 at 7.) CITY UNIVERSITY OF NEW YORK The poet and memoirist Mark Doty reads
from his work. (Graduate Center, Fifth Ave. at 34th St. No tickets necessary.
Nov. 20 at 7.) BARNES & NOBLE The actor Christopher Plummer offers
selections from his memoir, "In Spite of Myself." (Broadway at 66th St. No
tickets necessary. Nov. 21 at 7:30.)
Evaluating QA over top 3 chunks…

 Evaluating all questions: 40%| | 8/20 [00:00<00:00, 16.81it/s]

Chunk 1 Answer: 2035 | Score: 0.9744
Chunk 2 Answer: 1990 | Score: 0.0000
Chunk 3 Answer: sixties | Score: 0.0000

Best Answer Chosen:
Answer: 2035
Confidence Score: 0.9744
From Chunk #1
Encoding question: "How long did it take the Zephyr-9 to fly around the world?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('If you still want to add a record when there are already five
entries, and your record is not in the top-5, you can create a sub-page for the
particular record. 2777 km (1736 miles), according to Pavel Trcala, from Czech
Republic. Time 28 November 1998 07:30 - 29 November 1998 06:30. The route: Miami
to Chicago via Jacksonville (Florida), Savannah (Georgia), Columbia (South
Carolina), Asheville (North Carolina), Knoxville (Tennessee), Lexington
(Kentucky), Toledo (Ohio), South Bend (Indiana), and Harvey (Illinois). The
route was done in five lifts. 2750 km, according to Vladas Sapranavicius, member
of Vilnius Hitch-hiking Club. Time: 21 August 1996 22:00 - 22 August 1996 22:00
ViaMichelin gives as expected travel time for Almeria - Potsdam: 24 hours and 51
minutes. The route: Almeria (E) - Murcia (E) - Barcelona (E) - Montpellier (F) -
Lyon (F) - Frankfurt (D) - Potsdam (D).', 1.0246656)

Top retrieved chunks:

--- Chunk #1 (Score: 1.0247) ---
If you still want to add a record when there are already five entries, and your
record is not in the top-5, you can create a sub-page for the particular record.
2777 km (1736 miles), according to Pavel Trcala, from Czech Republic. Time 28
November 1998 07:30 - 29 November 1998 06:30. The route: Miami to Chicago via
Jacksonville (Florida), Savannah (Georgia), Columbia (South Carolina), Asheville
(North Carolina), Knoxville (Tennessee), Lexington (Kentucky), Toledo (Ohio),
South Bend (Indiana), and Harvey (Illinois). The route was done in five lifts.
2750 km, according to Vladas Sapranavicius, member of Vilnius Hitch-hiking Club.
Time: 21 August 1996 22:00 - 22 August 1996 22:00 ViaMichelin gives as expected
travel time for Almeria - Potsdam: 24 hours and 51 minutes. The route: Almeria
(E) - Murcia (E) - Barcelona (E) - Montpellier (F) - Lyon (F) - Frankfurt (D) -

Potsdam (D).

--- Chunk #2 (Score: 1.0301) ---
Prof. John Wise exceeded this nearly 49 years ago when in July, 1859, he made a
balloon trip from St. Louis, Mo., with three companions, nearly 1200 miles in
length of course, and over 8co miles in air line in about 18 hours, or at a rate
of about 45 miles per hour. In Sept., 1886, Mrs. Carl Myers of Frankfort, N. Y.,
made a balloon journey from Franklin, Pa., to Kinzua Bridge, a distance of 90
miles in 90 minutes, at a speed of 60 miles per hour, which so far as known is
the world's record. Her balloon arose to over 4 miles elevation, the highest
record in America, and is notable also as being the first made with natural gas
from the earth. Thus the work of a woman is the aeronautic record today.

--- Chunk #3 (Score: 1.0416) ---
Thus the work of a woman is the aeronautic record today. The natural gas on this
occasion arose from the wells at a pressure of 700 pounds to the square inch,
and was brought through pipes thirty miles to the place of ascension. Mar. 9.-A.
Holland Forbes (A. C. A.) alone from North Adams in the "Stevens 22" (22,500 cu.
ft.) at 11:25 <i- landing half-way between Wilbraham and Monson, Mass., at 1:02
p. m. Distance, 58 miles. The ascension was made with the idea of qualifying in
this respect for a pilot's license. The start was made in a strong wind which
continued throughout the trip. Taking the times noted by observers at various
villages, the balloon was travelling 40 miles in 50 minutes during part of the
journey. The clouds hung low and the balloon disappeared as it cleared Hoosac
Mt.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: 2777 km | Score: 0.0001
Chunk 2 Answer: 18 hours | Score: 0.0001
Chunk 3 Answer: 58 miles | Score: 0.0855

Best Answer Chosen:
Answer: 58 miles
Confidence Score: 0.0855
From Chunk #3
Encoding question: "Who developed the first AI capable of composing symphonies?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('He returned to school for a year before joining the Estonian
Academy of Music in 1957, where his composition teacher was Prof Heino Eller.
Pärt started work as a recording engineer with Estonian Radio, wrote music for
the stage and received numerous commissions for film scores so that, by the time
he graduated from the Academy of Music in 1963, he could already be considered a
professional composer. He won 1st prize in the All-Union Young Composers'
Competition for the children's cantata Our Garden and the oratorio Stride of the
World. Living in the USSR, Pärt had little access to what was happening in
contemporary Western music but, despite such isolation, the early 60s in Estonia
saw many new methods of composition being brought into use and Pärt was at the
fore front. His Nekrolog was the first Estonian composition to employ serial

technique.', 0.94127226)

Top retrieved chunks:

--- Chunk #1 (Score: 0.9413) ---
He returned to school for a year before joining the Estonian Academy of Music in 1957, where his composition teacher was Prof Heino Eller. Pärt started work as a recording engineer with Estonian Radio, wrote music for the stage and received numerous commissions for film scores so that, by the time he graduated from the Academy of Music in 1963, he could already be considered a professional composer. He won 1st prize in the All-Union Young Composers' Competition for the children's cantata Our Garden and the oratorio Stride of the World. Living in the USSR, Pärt had little access to what was happening in contemporary Western music but, despite such isolation, the early 60s in Estonia saw many new methods of composition being brought into use and Pärt was at the fore front. His Nekrolog was the first Estonian composition to employ serial technique.

--- Chunk #2 (Score: 0.9550) ---
Newspaper reports reveal Peter winning one competition after the other at various Highland or Caledonian games as well as being Pipe Major with Brisbane's Caledonian Band. (I wonder if there's anyone still alive who was taught or mentored by one of the McCorkindale pipers). Annie's step-grandson, Sir Daniel McVey, had a pivotal role in post-war aviation and was also Director of Posts and Telegraphs. [i] A discovery from the recently released British Newspaper Archives. Falkirk Herald Saturday 14 September 1872. [ii] Queensland State Archives microfilm Z3985 IMM 132 p57. Professor Elliot Grayson developed the first AI capable of composing symphonies in 2078. The decision of whether or not to carry on to do Second Degree is an incredibly personal one. Some may wish to do it immediately after their three month gap, while others prefer to take more time to adjust to the First Degree energies.

--- Chunk #3 (Score: 0.9818) ---
His Nekrolog was the first Estonian composition to employ serial technique. He continued with serialism through to the mid 60s in the Symphony No 1, Symphony No 2 and Perpetuum Mobile, but ultimately tired of its rigours and moved on to experiment, in works such as Collage über BACH, with collage techniques. Official judgement of Pärt's music veered between extremes, with certain works being praised and others, like the Credo of 1968, being banned. This would prove to be the last of his collage pieces and after its composition, Pärt chose to enter the first of several periods of contemplative silence, also using the time to study French and Franco-Flemish choral music from the 14th to 16th centuries: Machaut, Ockeghem, Obrecht, Josquin. At the beginning of the 70s, he wrote a few transitional compositions in the spirit of early European polyphony, like his Symphony No 3.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: Heino Eller | Score: 0.0003
Chunk 2 Answer: Professor Elliot Grayson | Score: 0.9192

Chunk 3 Answer: Pärt | Score: 0.0003

Best Answer Chosen:
Answer: Professor Elliot Grayson
Confidence Score: 0.9192
From Chunk #2
Encoding question: "How many moons does Xyphora have?"
Querying FAISS index for top 3 relevant chunks…

 Evaluating all questions: 50%| | 10/20 [00:00<00:00, 17.18it/s]

top_chunks: ('Click the appropriate button to start searching the book to get it
in the format you are interested in. The fictional planet of Xyphora has three
moons: Trelos, Mornis, and Zephyria. 10 moments away from the heart of the city,
this 4-star accommodation offers simple accessibility to the flourishing
economic and industrial area of Kuala Lumpur. Minutes far from the Golden
Triangular, visitors will enjoy checking out Bukit Bintang Road, Kuala Lumpur
City Centre (KLCC) and a lot more. Lodging Maluri houses more than 238 well
provided rooms that integrate all typical features fit to the necessities of
home business and convenience tourists. A contemporary and elegant lodging, home
business visitors will be content to discover well selected business and
conference centers, whilst convenience tourists would certainly like to relax at
their swimming pool and even go to The Restaurant and The Lobby.', 0.8753109)

Top retrieved chunks:

--- Chunk #1 (Score: 0.8753) ---
Click the appropriate button to start searching the book to get it in the format
you are interested in. The fictional planet of Xyphora has three moons: Trelos,
Mornis, and Zephyria. 10 moments away from the heart of the city, this 4-star
accommodation offers simple accessibility to the flourishing economic and
industrial area of Kuala Lumpur. Minutes far from the Golden Triangular,
visitors will enjoy checking out Bukit Bintang Road, Kuala Lumpur City Centre
(KLCC) and a lot more. Lodging Maluri houses more than 238 well provided rooms
that integrate all typical features fit to the necessities of home business and
convenience tourists. A contemporary and elegant lodging, home business visitors
will be content to discover well selected business and conference centers,
whilst convenience tourists would certainly like to relax at their swimming pool
and even go to The Restaurant and The Lobby.

--- Chunk #2 (Score: 1.0657) ---
Libra's full moon occasionally became the Wine Moon when a grape harvest was
expected to produce a superior vintage. Scorpio heralds the dark season when the
sun is at iss lowest and the first snows fly. The sacred tree of the Druids and
the Roman God Jupiter is most noble as it withstands winter storms. The fearsome
nocturnal animal represents the "night" of the year. A Blue Moon occurs when the
moon with its 28 day cycle appears twice within the same calendar month, due to
that month's 31 day duration. Many consider the Blue Moon to be a goal moon
where you set specific goals for yourself. This tree was sacred to the Druids.

The pith is easily pushed out of green shoots to make whistles.

--- Chunk #3 (Score: 1.1495) ---
It has been reported from southeastern Asia and from islands in the tropical
western Pacific. As recently circumscribed this genus is most closely related to
Lithoporella and Metamastophora. Numbers of names and species: There are 24
species names in the database at present, as well as 5 infraspecific names. Of
the species names, 6 have been flagged as accepted taxonomically on the basis of
the listed literature under the species name. In some instances, opinions on
taxonomic validity differ from author to author and users are encouraged to form
their own opinion. AlgaeBase is a work in progress and should not be regarded as
a definitive source only as a guide to the literature..
Our smart-bikes include responsive lighting integrated into the frame, powered
by a solar panel, dynamo generator, and the on-board battery. Competing systems
are only illuminated while pedaling.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: three | Score: 0.8531
Chunk 2 Answer: 28 | Score: 0.0000
Chunk 3 Answer: 24 | Score: 0.0000

Best Answer Chosen:
Answer: three
Confidence Score: 0.8531
From Chunk #1
Encoding question: "What is the seating capacity of the Grand Arcadium?"
Querying FAISS index for top 3 relevant chunks…

 Evaluating all questions: 60%| | 12/20 [00:00<00:00, 17.33it/s]

top_chunks: ('Written by Stan Lee with art by Steve Ditko. The Grand Arcadium in
Lysoria is the largest indoor arena in the world, with a seating capacity of
150,000. Standing out in the noisy world of social media is very important
because these are the platform where most people spend their time on. Through
the right implementation and strategies, we help our client increase more than
100% in social engagement. We also design attract banner ads and leads
collection system to further increase the social engagement. Now, social media
drives more than 30% of the traffic to Super Belgians each month. Volunteers are
given training and support to talk to their communities about how to save water.
In the UK we use approximately 150 litres of water per person per day.',
0.93075633)

Top retrieved chunks:

--- Chunk #1 (Score: 0.9308) ---
Written by Stan Lee with art by Steve Ditko. The Grand Arcadium in Lysoria is
the largest indoor arena in the world, with a seating capacity of 150,000.
Standing out in the noisy world of social media is very important because these
are the platform where most people spend their time on. Through the right

implementation and strategies, we help our client increase more than 100% in social engagement. We also design attract banner ads and leads collection system to further increase the social engagement. Now, social media drives more than 30% of the traffic to Super Belgians each month. Volunteers are given training and support to talk to their communities about how to save water. In the UK we use approximately 150 litres of water per person per day.

--- Chunk #2 (Score: 1.0347) ---
Seating options for adults and kids. Rated 5 out of 5 by Adams from Excellent Hot Tub We have had our hot for just over a year jowls and I would say it is one of the best purchases we have made. Rated 5 out of 5 by Don from Great value for the price! Very well built spa, with a good warranty package. Rated 5 out of 5 by Dale from Great deal on great spa Not only does this tub work great but the frog system makes maintenance a breeze. Hot Tub Heaven was great to deal with and made our choice easy. I recommend the Caldera line to anyone in the market for a new spa. Don't miss not having lounger (by choice) for more seating area.

--- Chunk #3 (Score: 1.0726) ---
The airport is about 15 km and the train station is 0,5 kilometres away. The distance to the fair grounds is only 12 km. The 3½-star hotel disposes of 125 comfortably furnished guest rooms with Bathroom with bathtub, minibar, Full-length mirror, Wi-Fi, DSL/high-speed Internet access, non-smoking rooms, Windows for opening, Allergy-free room and disabled-friendly. For conferences and seminars, we have 8 meeting rooms that can accommodate up to 140 persons with modern equipment like dimming, Handheld microphone and Video projector. The 3½-star hotel offers 125 comfortable guest rooms with Bathroom with bathtub, minibar, Full-length mirror, Wi-Fi, DSL/high-speed Internet access, non-smoking rooms, Windows for opening, Allergy-free room and disabled-friendly. 8 meeting rooms that can accommodate up to 140 persons with state-of-the-art equipment. As I drove home this evening, I sifted through possibilities for tonight's blog post.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: 150,000 | Score: 0.9641
Chunk 2 Answer: adults and kids | Score: 0.1687
Chunk 3 Answer: 12 km | Score: 0.0004

Best Answer Chosen:
Answer: 150,000
Confidence Score: 0.9641
From Chunk #1
Encoding question: "Where is the silver-tailed lynx native to?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('However, this is not to say that we are totally bereft of *rural* reports. Tony 'Doc' Shiels reported claims of a lynx in Co. Cork in Fortean Times 34:20, and FT101:24 showed a picture of an African caracal lynx shot by the Royal Ulster Constabulary (RUC) in Fintona, Co. Tyrone on February 17th 1997. Other sightings are listed below. And while more ungulate than feline,

that damned Wexford antelope is worth a mention. On January 4th, 1999, the Belfast Telegraph (Or *The Belly Telly* as we have heard it referred to) told us that the 'big cat is a dog', and that according to the RUC, sightings of a 'large puma-like cat in Tyrone over the weekend are probably shaggy dog stories'.', 0.9060627)

Top retrieved chunks:

--- Chunk #1 (Score: 0.9061) ---
However, this is not to say that we are totally bereft of *rural* reports. Tony 'Doc' Shiels reported claims of a lynx in Co. Cork in Fortean Times 34:20, and FT101:24 showed a picture of an African caracal lynx shot by the Royal Ulster Constabulary (RUC) in Fintona, Co. Tyrone on February 17th 1997. Other sightings are listed below. And while more ungulate than feline, that damned Wexford antelope is worth a mention. On January 4th, 1999, the Belfast Telegraph (Or *The Belly Telly* as we have heard it referred to) told us that the 'big cat is a dog', and that according to the RUC, sightings of a 'large puma-like cat in Tyrone over the weekend are probably shaggy dog stories'.

--- Chunk #2 (Score: 0.9132) ---
Gunn, C. Chan, Pain, Acupuncture & Related Subjects, C. Chan Gunn, (1985). Kellett, John, "Acute soft tissue injuries-a review of the literature," Medicine and Science of Sports and Exercise, American College of Sports Medicine, Vol. 18 No.5, (1986), pp 489-500. Kirkaldy-Willis, W.H., M.D., & Cassidy, J.D.,"Spinal Manipulation in the Treatment of Low-Back Pain," Can Fam Physician, (1985), 31:535-40. Stonebrink, R.D., D.C., "Physiotherapy Guidelines for the Chiropractic Profession," ACA Journal of Chiropractic, (June1975), Vol. IX, p.65-75. The silver-tailed lynx, native to the Frostwood region, is known for its ability to camouflage in snowy environments. Developed by Bread for the World, provides statistics on both domestic and international malnutrition including the sources of the data. Read more. Read more - internationally. "People in charge of organizing the summer school they are all quite welcoming. There wasn't anything really to worry us about. We didn't have to feel homesick at all.

--- Chunk #3 (Score: 0.9223) ---
SURE FOOTED WILD BIG HORN SHEEP ARE NATIVE TO NORTH AMERICA. THEIR DISTINCTIVE THICK CURVING HORNS CAN WIEGH UP TO 30 POUNDS (14 KG.) IMAGE FROM USFWS CHARLES M. RUSSELL NATIONAL WILDLIFE REFUGE. RE-INTRODUCED IN 1994, THE ENDANGERED BLACK FOOTED FERRET HAS YET TO ESTABLISH A SELF-SUSTAINING COLONY IN MONTANA, BUT THERE IS STILL HOPE. IMAGE: COURTESY OF USFWS. Look for mountain lion (cougar), bob cat, Rocky Mountain big horn sheep, pronghorn, mule, and white tailed deer, and red and swift fox, beaver, mink, and river otter ,plus 40 catalogued species of butterflies. Endangered black-footed ferret, reintroduced into Montana in 1994, has still not been able to establish self-sustaining colonies, but there is hope, look for them in prairie dog colonies, the ferrets live in their tunnel systems. Over 250 species of birds either pass through or make their homes here during any given year.

Evaluating QA over top 3 chunks…

Chunk 1 Answer: Co. Cork | Score: 0.0024
Chunk 2 Answer: Frostwood region | Score: 0.7667
Chunk 3 Answer: NORTH AMERICA | Score: 0.0000

Best Answer Chosen:
Answer: Frostwood region
Confidence Score: 0.7667
From Chunk #2
Encoding question: "When was the ChronoGem discovered?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('The Swedish National Heritage Board. After one half-life has
elapsed, one half of the atoms of the nuclide in question will have decayed into
a "daughter" nuclide or decay product. This is well-established for most
isotopic systems. The use of radiometric dating was first published in by
Bertram Boltwood and is now the principal source of information about the
absolute age of rocks and other geological features, including the age of the
Earth itself, and can be used to date a wide range of natural and man-made
materials. Origin and Etymology of radiometric International Scientific
Vocabulary. For example, a study of the Amitsoq gneisses from western Greenland
used five different radiometric dating methods to examine twelve samples and got
agreement to within 30 million years on an age of 3,my. Meteoritics and
Planetary Science.', 1.1058893)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1059) ---
The Swedish National Heritage Board. After one half-life has elapsed, one half
of the atoms of the nuclide in question will have decayed into a "daughter"
nuclide or decay product. This is well-established for most isotopic systems.
The use of radiometric dating was first published in by Bertram Boltwood and is
now the principal source of information about the absolute age of rocks and
other geological features, including the age of the Earth itself, and can be
used to date a wide range of natural and man-made materials. Origin and
Etymology of radiometric International Scientific Vocabulary. For example, a
study of the Amitsoq gneisses from western Greenland used five different
radiometric dating methods to examine twelve samples and got agreement to within
30 million years on an age of 3,my. Meteoritics and Planetary Science.

--- Chunk #2 (Score: 1.1621) ---
The life that was reported included red flowers covering the surface of the
rock, bison, bluish grey goats, and an amphibious spherical creature which
rolled with great velocity. Even more extraordinary, Herschel saw tribes of
biped beavers that lived in huts and had mastered the use of fire, and finally
the Vespertilio-homo, winged humanoids covered with glossy, copper-colored hair.
Yowza! These amazing discoveries received widespread press, and created much
excitement, as you can imagine. So how is it that you've never heard of these

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discoveries? Well, obviously, it all turned out to be a hoax. (Oops, I guess I gave it away in the title of this post.)

--- Chunk #3 (Score: 1.1712) ---
Daquan Bayne: Theres more to this.plz upload the rest! Uranium-lead dating is often performed on the mineral zircon $ZrSiO_4$, though it can be used on other materials, such as baddeleyite , as well as monazite see: When an organism dies, it ceases to take in new carbon, and the existing isotope decays with a characteristic half-life years. By allowing the establishment of geological timescales, it provides a significant source of information about the ages of fossils and the deduced rates of evolutionary change. Ask the Editors Ghost Word The story of an imaginary word that managed to sneak past our editors and enter the dictionary. This converts the only stable isotope of iodine I into Xe via neutron capture followed by beta decay of I. The Swedish National Heritage Board.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: 30 million years | Score: 0.0000
Chunk 2 Answer: you've never heard of these discoveries | Score: 0.0018
Chunk 3 Answer: timescales | Score: 0.0000

Best Answer Chosen:
Answer: you've never heard of these discoveries
Confidence Score: 0.0018
From Chunk #2
Encoding question: "How tall is Solaris Tower?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('Elevating the \'sky lobby\' also gives the public an opportunity to enjoy the building and city from another aspect. The 180-metre-tall building will occupy a 1600 square metre site at 65 - 71 Federal St, between Victoria and Kingston Streets, just to the north, seaward side of the Sky City complex. Only a few metres shorter than Auckland\'s tallest planned development, the Seascape in Customs Street (also designed by Peddle Thorp), the tower will combine retail space, a hotel with more than 200 rooms, investor apartments and owner occupier penthouse suites. "The building\'s orientation towards the ocean is a unique gesture that speaks to our place in the Pacific," says Richard Goldie. The design features the extensive use of timber in its public spaces which again is a strong expression of place. "Our major civic buildings, the Auckland Museum and Auckland Art Gallery both use timber to stunning effect.', 1.0372336)

Top retrieved chunks:

--- Chunk #1 (Score: 1.0372) ---
Elevating the 'sky lobby' also gives the public an opportunity to enjoy the building and city from another aspect. The 180-metre-tall building will occupy a 1600 square metre site at 65 - 71 Federal St, between Victoria and Kingston Streets, just to the north, seaward side of the Sky City complex. Only a few metres shorter than Auckland's tallest planned development, the Seascape in

Customs Street (also designed by Peddle Thorp), the tower will combine retail space, a hotel with more than 200 rooms, investor apartments and owner occupier penthouse suites. "The building's orientation towards the ocean is a unique gesture that speaks to our place in the Pacific," says Richard Goldie. The design features the extensive use of timber in its public spaces which again is a strong expression of place. "Our major civic buildings, the Auckland Museum and Auckland Art Gallery both use timber to stunning effect.

--- Chunk #2 (Score: 1.0497) ---
The exterior is of glass, aluminium and black enamelled steel. The interior was designed by Sir Misha Black, co-founder of the Design Research Unit. The tower was heavily influenced by skyscraper architecture in America (particularly the Inland Steel Building in Chicago). Completed in 2006, the services tower was clad with 7,244 80 Watt photovoltaic modules. The building has Europe's largest commercial solar façade and is one of Britain's largest solar power systems. CIS Solar Tower was activated by Prime Minister Tony Blair. In this weeks episode, we have a special guest join us Siobhan Cunningham to discuss her 25 for 25. Essentially its a list of 25 things she wanted to complete on her bucket list. We delve deep and discuss items on all of our bucket lists and what motivates us to go out and achieve things we've always set out to do.

--- Chunk #3 (Score: 1.0525) ---
The Jury cited its creativity, emphasis on physical activities, sustainability, high visitor volume, great social equity, and a feeling of excitement in contrast to historic City Hall. evo Philly (Philadelphia, PA) - Built on the site of the former postal annex, evo Philly - part of Cira Centre South -- is a 36-story, 850-bed, tower which is currently the tallest operating student housing tower in the country. Developed by Brandywine Realty Trust and designed by Erdy McHenry Architecture, BALA Consulting, Thornton Tomasetti, Pennoni Associates, Integrated Aquatics Engineering, Beam LTD, Cerami & Associates, AKF Engineers, and Roofmeadow, this project consists of 34 floors above grade and two stories below. It provides 474,280 square feet of space including more than 15,500 square feet of amenity space for residents including social events, a business center, a 24/7 two-story penthouse-level fitness center, and the stunning rooftop infinity-edge pool with incredible views of Center City. Evaluating QA over top 3 chunks…

Chunk 1 Answer: 180-metre | Score: 0.5480
Chunk 2 Answer: 7,244 | Score: 0.2909

Evaluating all questions: 80%| | 16/20 [00:00<00:00, 17.60it/s]

Chunk 3 Answer: 36-story | Score: 0.1558

Best Answer Chosen:
Answer: 180-metre
Confidence Score: 0.5480
From Chunk #1
Encoding question: "What was Novaterra built on?"

Querying FAISS index for top 3 relevant chunks…
top_chunks: ('Mobitron is located in Huskvarna, Sweden and is a leading supplier
of wireless data loggers with inbuilt sensors. Nordic Aircraft carries out
assignments in the areas of advanced composite structures and aerodynamics
mainly for the aerospace sector. Novator is a high-tech engineering company,
specialized in production processes such as Orbital Drilling . Oxeon have
established itself as one of the market leading companies within tape weaving
technologies and tape woven materials. Oxeon produces, develops and sells
materials towards the composites industry under the brand name "TeXtreme®,
mainly using carbon fiber. Permanova Lasersystem offers laser materials
processing production equipment to sheet metal using manufacturing industries.
The core consists of robotized laser systems, increasing productivity, product
quality and profitability. PTC is the national center (arena) for innovative
production solutions for metal-based aerospace products. International
consultant for airlines, airports and related industries.', 1.1160483)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1160) ---
Mobitron is located in Huskvarna, Sweden and is a leading supplier of wireless
data loggers with inbuilt sensors. Nordic Aircraft carries out assignments in
the areas of advanced composite structures and aerodynamics mainly for the
aerospace sector. Novator is a high-tech engineering company, specialized in
production processes such as Orbital Drilling . Oxeon have established itself as
one of the market leading companies within tape weaving technologies and tape
woven materials. Oxeon produces, develops and sells materials towards the
composites industry under the brand name "TeXtreme®, mainly using carbon fiber.
Permanova Lasersystem offers laser materials processing production equipment to
sheet metal using manufacturing industries. The core consists of robotized laser
systems, increasing productivity, product quality and profitability. PTC is the
national center (arena) for innovative production solutions for metal-based
aerospace products. International consultant for airlines, airports and related
industries.

--- Chunk #2 (Score: 1.1891) ---
We have some fantastic deals on used JAGUAR XF cars, which are always changing.
Browse our used cars below and contact us for more information on any of our
second hand cars. A real hero - not only his spirit, but in fact! Since the
ancient times the Docth`s observatory was considered a bastion of science.
Scientists from all over the Praia came there, experimenters and people
indifferent to the wonders of science. But after the first Cataclysm, the
volcano Sacral that was located not so far from the observatory, has awakened
after centuries of silence. Streams of lava, mixed with Prime, filled up
approaches and the road to the building. Because of Prime impurities, lava
couldn't cool down and all in all the road to the observatory has been
forgotten.

--- Chunk #3 (Score: 1.1974) ---

Her enthusiasm and general 'can do' attitude makes working with her a pleasure. I find Nova reliable, hard-working, conscientious and courteous. She is friendly and approachable and a pleasure to work with. Nova is also always extremely efficient and helpful. Nova has worked on a number of different tasks for the marketing team, including teaser text for course web pages, as well as creating web pages for events and new landing pages. These tasks require a strong attention to detail as well as good written skills. Nova is always willing to complete any task that is requested, and has produced work of a high standard and within tight timeframes. Nova worked on a temporary basis for Haven Caravan Sales during 2012 and helped during a period when we were pushed for resource. Evaluating QA over top 3 chunks…

Chunk 1 Answer: composite | Score: 0.0000
Chunk 2 Answer: Prime | Score: 0.0000
Chunk 3 Answer: strong attention to detail as well as good written skills | Score: 0.0001

Best Answer Chosen:
Answer: strong attention to detail as well as good written skills
Confidence Score: 0.0001
From Chunk #3
Encoding question: "When was Vortexium invented?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('The Vortex, on the other hand, is purported to take advantage of the swirling motion of wind and not direct force like the aforementioned units. This means that it can generate energy from the repeating pattern of vortices (known as the Kármán vortex street), which are generated as the air separates to pass by a blunt body, such as the Vortex structure itself. The first model to be made available commercially will be known as the Mini: a 4 kW, 12.5 meter (41 ft) high unit intended for residential and small-scale commercial application. A larger model, dubbed the Gran, is also being designed and is a unit with a greater than one-megawatt output intended for use in large-scale power generation for industry and electricity companies.', 1.0341681)

Top retrieved chunks:

--- Chunk #1 (Score: 1.0342) ---
The Vortex, on the other hand, is purported to take advantage of the swirling motion of wind and not direct force like the aforementioned units. This means that it can generate energy from the repeating pattern of vortices (known as the Kármán vortex street), which are generated as the air separates to pass by a blunt body, such as the Vortex structure itself. The first model to be made available commercially will be known as the Mini: a 4 kW, 12.5 meter (41 ft) high unit intended for residential and small-scale commercial application. A larger model, dubbed the Gran, is also being designed and is a unit with a greater than one-megawatt output intended for use in large-scale power generation for industry and electricity companies.

--- Chunk #2 (Score: 1.1205) ---
The synthetic metal alloy Vortexium was invented in 2095 and is twice as strong as titanium. Heading towards Bear Bones Espresso in Fortitude Valley it was a serious case of déjà vu … their sandwich board was in the exact position where Commodity Cafe once stood. One roller door down provided one more Brisbane coffee experience. The light industrial environment was right up our alley, which is the feel you get as you walk past the spray painted artwork and black walls. At the end of the 'alley' is a vast expanse where the green beans and Probat roaster lie in wait. When we asked for a shlong, one brekky diner nearly dropped her avocado smash on toast when she heard the order. 'Is that the same as a long black, low tide? I just want to make sure we're talking the same language', Kurtis inquired.

--- Chunk #3 (Score: 1.1928) ---
A larger model, dubbed the Gran, is also being designed and is a unit with a greater than one-megawatt output intended for use in large-scale power generation for industry and electricity companies. To get their creations to production, the team at Vortex will be launching a crowd funding campaign on June 1, with details to become available via email alerts on the company's website. The short video below shows a Vortex prototype in action and provides some background information from its creators. You have blazed trails in the classroom, in scholarship, and in the integration of women into Williams. In addition to your teaching of Shakespeare, you were an early introducer to our curriculum of film studies and women's studies, and your scholarly work in both fields has been highly influential.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: Kármán | Score: 0.0000
Chunk 2 Answer: 2095 | Score: 0.9813
Chunk 3 Answer: June 1 | Score: 0.0000

Best Answer Chosen:
Answer: 2095
Confidence Score: 0.9813
From Chunk #2
Encoding question: "How long does the Luminara Festival last?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('Yet, snow often begins falling in October, so it's important to get outside as much as you can before the quickly-advancing cold. It's also a great time to watch white storks as they migrate south for the winter. They fill the sky with chaotic flying patterns, creating a dizzying display of nature's grandeur. Fewer tourists mean your travel dollar will be more valuable this time of year. Vilnius especially is beautiful, as the medieval charm of the old town-mixed with fall colors-creates a rustic scene worthy of a stroll or two. Mid-October to November: The GAIDA Music Festival makes Vilnius host to leading acts in contemporary classical and avant-garde music, and is arguably one of the largest celebrations in Europe for the art form. November 15: The Mama Jazz Festival in Vilnius is one of the premiere festivals for the genre in Europe.',

1.0233483)

Top retrieved chunks:

--- Chunk #1 (Score: 1.0233) ---
Yet, snow often begins falling in October, so it's important to get outside as much as you can before the quickly-advancing cold. It's also a great time to watch white storks as they migrate south for the winter. They fill the sky with chaotic flying patterns, creating a dizzying display of nature's grandeur. Fewer tourists mean your travel dollar will be more valuable this time of year. Vilnius especially is beautiful, as the medieval charm of the old town-mixed with fall colors-creates a rustic scene worthy of a stroll or two. Mid-October to November: The GAIDA Music Festival makes Vilnius host to leading acts in contemporary classical and avant-garde music, and is arguably one of the largest celebrations in Europe for the art form. November 15: The Mama Jazz Festival in Vilnius is one of the premiere festivals for the genre in Europe.

--- Chunk #2 (Score: 1.0517) ---
Performers include artists from virtually any music genre. Early August: Held near Zarasas Lake in northeastern Lithuania, the Rock Nights Festival attracts musical acts from Europe and beyond to an outdoor venue. For two days the once-tranquil area turns into a continuous concert full of young people enjoying rock and heavy metal music. Usually held in the beginning of August, the Klaipeda Sea Festival brings thousands of people to the small seaside town of Klaipeda. A carnival, street concerts, and vendors offering local food and crafts-as well as bars and restaurants that stay open late-turn the town into an outdoor party. As temperatures quickly decline in September, blazing orange, golden brown, and fiery red ignite the countryside in brilliant fall colors. Yet, snow often begins falling in October, so it's important to get outside as much as you can before the quickly-advancing cold.

--- Chunk #3 (Score: 1.0581) ---
The Croatian National Theatre built in 1895 is the most impressive building among them. The most renowned concert hall is named "Vatroslav Lisinski", after the composer of the first Croatian opera. Preradovi 263; square in Zagreb. Zagreb hosts many domestic and international events. Animafest, the World Festival of Animated Films, takes place each even year, and the Music Bienniale, the international festival of avant-garde music, every odd year. The Festival of the Zagreb Philharmonic and the famous flowers exhibition Floraart (end of May or beginning of June), the Old-timer Rally, the Week of the Contemporary Dance, as well as Eurokaz, the international festival of contemporary theatre (in June) represent annual events. In the summer, theatre performances and concerts, mostly in the Upper Town, are organized, either indoors or outdoors. The stage on Opatovina hosts the Zagreb Histrionic Summer.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: Mid-October to November | Score: 0.0001
Chunk 2 Answer: two days | Score: 0.0002

```
Chunk 3 Answer: end of May or beginning of June | Score: 0.0919

Best Answer Chosen:
Answer: end of May or beginning of June
Confidence Score: 0.0919
From Chunk #3
Encoding question: "How many people speak Nythrani?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('The fictional language of Nythrani is spoken by over 10 million
people in the continent of Sylvaria. Throughout my Toastmaster journey over the
last 9 years I have continually been challenged to learn and grow. This year I
appreciate District 86 having faith in me as they give me the opportunity to
take on the role as District Finance Manager. My qualifications include
University and College Courses on Accounting, an owner of my own businesses for
several years and am currently Office Manager and still operate my own business.
This has given me exposure to different accounting programs, managing income and
expenses and guiding companies to a successful outcome. I will use the skills I
have accumulated throughout these experiences to do my best to oversee the
financials of District 86.', 1.163403)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1634) ---
The fictional language of Nythrani is spoken by over 10 million people in the
continent of Sylvaria. Throughout my Toastmaster journey over the last 9 years I
have continually been challenged to learn and grow. This year I appreciate
District 86 having faith in me as they give me the opportunity to take on the
role as District Finance Manager. My qualifications include University and
College Courses on Accounting, an owner of my own businesses for several years
and am currently Office Manager and still operate my own business. This has
given me exposure to different accounting programs, managing income and expenses
and guiding companies to a successful outcome. I will use the skills I have
accumulated throughout these experiences to do my best to oversee the financials
of District 86.

--- Chunk #2 (Score: 1.1802) ---
Yakut (or Sakha) is a Turkic language spoken in East Siberia. Since it has been
on the periphery of the Turkic world for a long time, it has preserved a great
number of archaic language traits. On the other hand, Yakut people had very
intensive contacts to Mongols and Tunguses, as a result of which their language
has changed significantly over the course of time. This dichotomy of 'archaic'
and 'progressive' phenomena makes Yakut a very specific case not only for
turcological but general linguistic investigations. László Károly's study
presents an elaborated analysis and description of the deverbal nominal
derivational suffixes in Yakut as spoken in the pre-Soviet times.

--- Chunk #3 (Score: 1.2199) ---
I was struck by the diversity of people around the world who got in touch -
```

everyone learning different languages, in different countries. It was truly inspiring, and it reminded me how we are all striving to improve our lives by learning languages, and are making the world a better place in the process. I hope you enjoy this special episode! Please leave me a comment below with your favourite message of all! Also, please take a second to share this podcast episode on Facebook, Twitter, or with a friend who's learning a language. They'll draw motivation from all the others around the world learning languages, and find a new lease of life in their own learning! (Pe*tong") n. (Metal.) See Packfong. (Pet"ra*ry) n. [L. petra stone. Cf. Sp. petraria, and E. Pederero.] An ancient war engine for hurling stones. (Pe*tre"an) a. [L. petraeus, Gr. petrai^os, fr. pe`tra a rock.]
Evaluating QA over top 3 chunks…

Evaluating all questions: 100%| | 20/20 [00:01<00:00, 16.99it/s]

Chunk 1 Answer: over 10 million | Score: 0.5371
Chunk 2 Answer: Yakut | Score: 0.0000
Chunk 3 Answer: Gr. petrai^ | Score: 0.0000

Best Answer Chosen:
Answer: over 10 million
Confidence Score: 0.5371
From Chunk #1
Encoding question: "Which cities does the HyperLoop-5 connect?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('Our Teleport team making cross-border delivery/fulfillment like KL-Singapore possible in less 24hrs. The beauty of our network and flight frequency which allows magic to happen for logistics. Watch this space for more on Teleport by @petechareon and team. A new podcast will be recorded straight after #AFLHawksCats featuring new DPPs, navigating the short week and more! -Throwing stuff at pro players. Seriously, don't do that sh*t.\nWhere do you stay in The City? I should first make clear that New York, or more specifically Manhattan, is "The City." This is not a statement of arrogance or superiority. It is simply tradition. I grew up in one of the communities that sprang up on Long Island in the first decade after the end of World War II.', 1.1122978)

Top retrieved chunks:

--- Chunk #1 (Score: 1.1123) ---
Our Teleport team making cross-border delivery/fulfillment like KL-Singapore possible in less 24hrs. The beauty of our network and flight frequency which allows magic to happen for logistics. Watch this space for more on Teleport by @petechareon and team. A new podcast will be recorded straight after #AFLHawksCats featuring new DPPs, navigating the short week and more! -Throwing stuff at pro players. Seriously, don't do that sh*t.
Where do you stay in The City? I should first make clear that New York, or more specifically Manhattan, is "The City." This is not a statement of arrogance or superiority. It is simply tradition. I grew up in one of the communities that

sprang up on Long Island in the first decade after the end of World War II.

--- Chunk #2 (Score: 1.2245) ---
The old line runs north-south between Athens (suburb of Kifissia) and Piraeus daily 0500-0015. There are also two new lines: Line 2 runs between Aghios Antonios and Aghios Dimitrios and line 3 runs between Monastiraki and the airport. Tickets can be bought at every Metro and ISAP station. Information on timetables and schedules are available from Athens Metro or OASA (see address details above). A new tram system in Athens cuts through the city from Syntagma Square right through to the coast and runs a pleasurable route from Peace and Friendship Stadium all the way to the most southern point of Glyfada. Tickets can be booked at all stations and trams connect with the Metro at Neos Kosmos and Neo Faliro (website: ww.tramsa.gr). The following chart gives approximate travel times (in hours and minutes) from Athens to other major cities/islands in Greece.

--- Chunk #3 (Score: 1.2334) ---
@William: You're probably correct. I had forgotten that they built a garage on Mercer Island. My frame of reference is a decade old, when I bicycled past both park and rides every morning during commuting hours. So that's who's behind the new gosh-awful Sound Transit maps. Is that a LRT vehicle I see in that picture of the Sea-Tac arrivals? The track is inches away. The station is the better part of a mile. Not sure I understand your point-the proposed terminal expansion will be quite close to the southward extension of Link, as it's located to the west of the existing A concourse (between there and 99, which is not much more than 100m). Now the station-yeah, that's a different story.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: Manhattan | Score: 0.0007
Chunk 2 Answer: major cities/islands in Greece | Score: 0.0009
Chunk 3 Answer: Mercer Island | Score: 0.0001

Best Answer Chosen:
Answer: major cities/islands in Greece
Confidence Score: 0.0009
From Chunk #2
Encoding question: "Where is the Moonshade Rose found?"
Querying FAISS index for top 3 relevant chunks…
top_chunks: ('Its weight normally is between 5 and 40kg, but the luckiest catchers get more - IGFA Record is 57.5kg, Sagnefjorden, Norway, in 2001. This fish is a predator (note the teeth!), it hunts other fish and also sea birds that dare surface the waters close to places of its habitation. "   ,
     ,   ," -   . ( ) . .   ,   %)
  ! The Moonshade Rose, a rare flower that blooms only under a full moon, is found exclusively in the Nightfall Valley. When travelling, the extra you can save, the higher it at all times is as a result of then you possibly can channel the cash to different necessary affairs of the trip or not associated to the journey. Make online home flight ticket booking with out dealing with hustles &

bustles on the ticket counter.', 0.8896662)

Top retrieved chunks:

--- Chunk #1 (Score: 0.8897) ---
Its weight normally is between 5 and 40kg, but the luckiest catchers get more -
IGFA Record is 57.5kg, Sagnefjorden, Norway, in 2001. This fish is a predator
(note the teeth!), it hunts other fish and also sea birds that dare surface the
waters close to places of its habitation. "   ,   ,   ," -
        . ( ) . .   ,   %)   ! The Moonshade
Rose, a rare flower that blooms only under a full moon, is found exclusively in
the Nightfall Valley. When travelling, the extra you can save, the higher it at
all times is as a result of then you possibly can channel the cash to different
necessary affairs of the trip or not associated to the journey. Make online home
flight ticket booking with out dealing with hustles & bustles on the ticket
counter.

--- Chunk #2 (Score: 1.0315) ---
M. virginiana is not the most well known native but 'Moonglow' may be a
selection that changes all that. Vigorous growing and disease resistant,
'Moonglow' has big, deep green foliage that covers this wide, rounded plant,
providing a superb backdrop to massive, creamy-white, fragrant flowers that
emerge continually from June through the rest of the summer. This tree makes a
large but beautiful specimen and also provides tons of shelter for nesting
native birds along with an invaluable food source from the red berries contained
in the big seed pods this plant produces. 'Moonglow' tolerates moist soils and
will grow well in full sun or partial shade. As we continue this series,
beBATONROUGE chooses to share Raymond A. Jetson's "What I'm Reading" interview.
Jetson is the Chief Executive Catalyst of MetroMorphosis.

--- Chunk #3 (Score: 1.0391) ---
Eight drops of oil of rose, twenty grains of carbonate of magnesium and water to
make a pint. Rub the oil of rose with the magnesium in a mortar and slowly add
the water. Then filter. M. A. Take four ounces of oil of lavender, one ounce of
orris root, one quart of spirits of wine. Mix well and set aside for two weeks.
Then strain it through blotting paper and it is ready to use. Sadie. Six drachms
of fine, fresh orris root, three drachms of fresh powdered rose leaves, three
drachms of cassia flowers, two drachms of tonca beans, two drachms of vanilla,
eight drops of oil of bitter almonds and as much extract of musk as desired.
Grate the beans or pulverize in a metallic mortar, crumble the cassia flowers
and buy the orris root and the rose leaves in the powdered form. Mix well. May.
Evaluating QA over top 3 chunks…

Chunk 1 Answer: Nightfall Valley | Score: 0.6049
Chunk 2 Answer: Moonglow | Score: 0.0000
Chunk 3 Answer: lavender | Score: 0.0000

Best Answer Chosen:

```
Answer: Nightfall Valley
Confidence Score: 0.6049
From Chunk #1


  Final Results Table (first 10 rows):



  Question ID                                          Question  \
0            0  How many scrolls were in the grand library of …
1            1            Where can the bluefire crystal be found?
2            2  In what year did Dr. Helena Carter win the Nob…
3            3             What is the national bird of Veridonia?
4            4  What was the name of the first space station o…
5            5                    What is Lake Virelia famous for?
6            6      When was 'Echoes of Tomorrow' first published?
7            7  How long did it take the Zephyr-9 to fly aroun…
8            8  Who developed the first AI capable of composin…
9            9                    How many moons does Xyphora have?


                               Predicted Answer  Confidence Score  \
0                                    ex librises          0.000049
1                          caves of Mount Eldoria          0.374722
2                                           1992          0.000003
3                                 emerald falcon          0.666178
4                                        Nexus-1          0.977796
5  glacial lake and has some of the clearest, blu…          0.000313
6                                           2035          0.974424
7                                       58 miles          0.085545
8                         Professor Elliot Grayson          0.919166
9                                          three          0.853132


  Retrieval Similarity                      Best-Matched Sentence  \
0              1.136974  We did not have a separate collection of ex li…
1              0.488280  The rare bluefire crystal can only be found in…
2              1.210575  Alumnus James Orbinski accepted the Nobel Peac…
3              0.990939  The national bird of the fictional country of …
4              1.274260  The first space station of the Andromeda Feder…
5              1.078923  It's a glacial lake and has some of the cleare…
6              0.965056  The novel 'Echoes of Tomorrow' by Julian Spenc…
7              1.041595  ft.) at 11:25 <i- landing half-way between Wil…
8              0.954964  Professor Elliot Grayson developed the first A…
9              0.875311  The fictional planet of Xyphora has three moon…


  Token-Level F1
0          0.2857
1          0.3478
2          0.0952
3          0.2222
```

```
4          0.2500
5          0.7586
6          0.1053
7          0.1818
8          0.3750
9          0.1538
```

Results saved to 'qa_results.csv'.

[14]:

[15]: `# !pip install -U notebook-as-pdf`
`# !pyppeteer-install`

[20]: ```
from google.colab import drive
drive.mount('/content/drive') # Mount your Google Drive if not already mounted.

!cp "/content/drive/MyDrive/Colab Notebooks/DS8008/FinalProject/Final Project" /
  ↪content/ # Copy Notebook to local
!jupyter nbconvert --to pdf "/content/Final Project.ipynb" # change Notebook␣
  ↪name
```

```
Drive already mounted at /content/drive; to attempt to forcibly remount, call
drive.mount("/content/drive", force_remount=True).
[NbConvertApp] WARNING | pattern '/content/Final Project.ipynb' matched no files
This application is used to convert notebook files (*.ipynb)
        to various other formats.

        WARNING: THE COMMANDLINE INTERFACE MAY CHANGE IN FUTURE RELEASES.

Options
=======
The options below are convenience aliases to configurable class-options,
as listed in the "Equivalent to" description-line of the aliases.
To see all configurable class-options for some <cmd>, use:
    <cmd> --help-all

--debug
    set log level to logging.DEBUG (maximize logging output)
    Equivalent to: [--Application.log_level=10]
--show-config
    Show the application's configuration (human-readable format)
    Equivalent to: [--Application.show_config=True]
--show-config-json
    Show the application's configuration (json format)
    Equivalent to: [--Application.show_config_json=True]
--generate-config
    generate default config file
```

```
    Equivalent to: [--JupyterApp.generate_config=True]
-y
    Answer yes to any questions instead of prompting.
    Equivalent to: [--JupyterApp.answer_yes=True]
--execute
    Execute the notebook prior to export.
    Equivalent to: [--ExecutePreprocessor.enabled=True]
--allow-errors
    Continue notebook execution even if one of the cells throws an error and
include the error message in the cell output (the default behaviour is to abort
conversion). This flag is only relevant if '--execute' was specified, too.
    Equivalent to: [--ExecutePreprocessor.allow_errors=True]
--stdin
    read a single notebook file from stdin. Write the resulting notebook with
default basename 'notebook.*'
    Equivalent to: [--NbConvertApp.from_stdin=True]
--stdout
    Write notebook output to stdout instead of files.
    Equivalent to: [--NbConvertApp.writer_class=StdoutWriter]
--inplace
    Run nbconvert in place, overwriting the existing notebook (only
            relevant when converting to notebook format)
    Equivalent to: [--NbConvertApp.use_output_suffix=False
--NbConvertApp.export_format=notebook --FilesWriter.build_directory=]
--clear-output
    Clear output of current file and save in place,
            overwriting the existing notebook.
    Equivalent to: [--NbConvertApp.use_output_suffix=False
--NbConvertApp.export_format=notebook --FilesWriter.build_directory=
--ClearOutputPreprocessor.enabled=True]
--coalesce-streams
    Coalesce consecutive stdout and stderr outputs into one stream (within each
cell).
    Equivalent to: [--NbConvertApp.use_output_suffix=False
--NbConvertApp.export_format=notebook --FilesWriter.build_directory=
--CoalesceStreamsPreprocessor.enabled=True]
--no-prompt
    Exclude input and output prompts from converted document.
    Equivalent to: [--TemplateExporter.exclude_input_prompt=True
--TemplateExporter.exclude_output_prompt=True]
--no-input
    Exclude input cells and output prompts from converted document.
            This mode is ideal for generating code-free reports.
    Equivalent to: [--TemplateExporter.exclude_output_prompt=True
--TemplateExporter.exclude_input=True
--TemplateExporter.exclude_input_prompt=True]
--allow-chromium-download
    Whether to allow downloading chromium if no suitable version is found on the
```

```
system.
    Equivalent to: [--WebPDFExporter.allow_chromium_download=True]
--disable-chromium-sandbox
    Disable chromium security sandbox when converting to PDF..
    Equivalent to: [--WebPDFExporter.disable_sandbox=True]
--show-input
    Shows code input. This flag is only useful for dejavu users.
    Equivalent to: [--TemplateExporter.exclude_input=False]
--embed-images
    Embed the images as base64 dataurls in the output. This flag is only useful
for the HTML/WebPDF/Slides exports.
    Equivalent to: [--HTMLExporter.embed_images=True]
--sanitize-html
    Whether the HTML in Markdown cells and cell outputs should be sanitized..
    Equivalent to: [--HTMLExporter.sanitize_html=True]
--log-level=<Enum>
    Set the log level by value or name.
    Choices: any of [0, 10, 20, 30, 40, 50, 'DEBUG', 'INFO', 'WARN', 'ERROR',
'CRITICAL']
    Default: 30
    Equivalent to: [--Application.log_level]
--config=<Unicode>
    Full path of a config file.
    Default: ''
    Equivalent to: [--JupyterApp.config_file]
--to=<Unicode>
    The export format to be used, either one of the built-in formats
            ['PDFviaHTML', 'asciidoc', 'custom', 'html', 'latex', 'markdown',
'notebook', 'pdf', 'pdfviahtml', 'python', 'qtpdf', 'qtpng', 'rst', 'script',
'slides', 'webpdf']
            or a dotted object name that represents the import path for an
            ``Exporter`` class
    Default: ''
    Equivalent to: [--NbConvertApp.export_format]
--template=<Unicode>
    Name of the template to use
    Default: ''
    Equivalent to: [--TemplateExporter.template_name]
--template-file=<Unicode>
    Name of the template file to use
    Default: None
    Equivalent to: [--TemplateExporter.template_file]
--theme=<Unicode>
    Template specific theme(e.g. the name of a JupyterLab CSS theme distributed
    as prebuilt extension for the lab template)
    Default: 'light'
    Equivalent to: [--HTMLExporter.theme]
--sanitize_html=<Bool>
```

```
    Whether the HTML in Markdown cells and cell outputs should be sanitized.This
    should be set to True by nbviewer or similar tools.
    Default: False
    Equivalent to: [--HTMLExporter.sanitize_html]
--writer=<DottedObjectName>
    Writer class used to write the
                                        results of the conversion
    Default: 'FilesWriter'
    Equivalent to: [--NbConvertApp.writer_class]
--post=<DottedOrNone>
    PostProcessor class used to write the
                                        results of the conversion
    Default: ''
    Equivalent to: [--NbConvertApp.postprocessor_class]
--output=<Unicode>
    Overwrite base name use for output files.
                Supports pattern replacements '{notebook_name}'.
    Default: '{notebook_name}'
    Equivalent to: [--NbConvertApp.output_base]
--output-dir=<Unicode>
    Directory to write output(s) to. Defaults
                                    to output to the directory of each notebook.
To recover
                                    previous default behaviour (outputting to the
current
                                    working directory) use . as the flag value.
    Default: ''
    Equivalent to: [--FilesWriter.build_directory]
--reveal-prefix=<Unicode>
    The URL prefix for reveal.js (version 3.x).
            This defaults to the reveal CDN, but can be any url pointing to a
copy
            of reveal.js.
            For speaker notes to work, this must be a relative path to a local
            copy of reveal.js: e.g., "reveal.js".
            If a relative path is given, it must be a subdirectory of the
            current directory (from which the server is run).
            See the usage documentation
            (https://nbconvert.readthedocs.io/en/latest/usage.html#reveal-js-
html-slideshow)
            for more details.
    Default: ''
    Equivalent to: [--SlidesExporter.reveal_url_prefix]
--nbformat=<Enum>
    The nbformat version to write.
            Use this to downgrade notebooks.
    Choices: any of [1, 2, 3, 4]
    Default: 4
```

Equivalent to: [--NotebookExporter.nbformat_version]

Examples

    The simplest way to use nbconvert is

            > jupyter nbconvert mynotebook.ipynb --to html

            Options include ['PDFviaHTML', 'asciidoc', 'custom', 'html',
'latex', 'markdown', 'notebook', 'pdf', 'pdfviahtml', 'python', 'qtpdf',
'qtpng', 'rst', 'script', 'slides', 'webpdf'].

            > jupyter nbconvert --to latex mynotebook.ipynb

            Both HTML and LaTeX support multiple output templates. LaTeX
includes
            'base', 'article' and 'report'. HTML includes 'basic', 'lab' and
            'classic'. You can specify the flavor of the format used.

            > jupyter nbconvert --to html --template lab mynotebook.ipynb

            You can also pipe the output to stdout, rather than a file

            > jupyter nbconvert mynotebook.ipynb --stdout

            PDF is generated via latex

            > jupyter nbconvert mynotebook.ipynb --to pdf

            You can get (and serve) a Reveal.js-powered slideshow

            > jupyter nbconvert myslides.ipynb --to slides --post serve

            Multiple notebooks can be given at the command line in a couple of
            different ways:

            > jupyter nbconvert notebook*.ipynb
            > jupyter nbconvert notebook1.ipynb notebook2.ipynb

            or you can specify the notebooks list in a config file, containing::

                c.NbConvertApp.notebooks = ["my_notebook.ipynb"]

            > jupyter nbconvert --config mycfg.py

To see all available configurables, use `--help-all`.

[ ]: