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CART451: Networked Media Studio

Assignment 01

The chosen dataset is the *Youtube Videos Dataset (~3400 videos)*. This dataset contains around 3400 videos divided into four categories: Travel vlogs, Food, Art and Music, and History. The things that were scraped for this video dataset are their Video ID links, title, description, and category. I decided to use this dataset for the assignment because it is one of the datasets I want to use and explore in my final project. I want to test the water with this dataset to see the potential of my project and if I'll need to adjust and make some changes accordingly in this artistic process.

I faced several issues during the package installation and data importation process. I decided to install the *mongoshell/atlas* commandline and the *mongoimport* tool. It was a bit difficult to follow through all the installation steps. There were a lot of precise steps to follow, and I was a bit nervous while doing it for fear of messing things up on my computer. I had to re-install *Chocolatey* because I forgot a step, but in the end, I was able to install everything correctly. The second challenge was importing the data; it took me a while to understand the *Mongoimport* function; the handshake was not happening. Ultimately, I understood how to write the path for importing my CSV file. It required my connection string at the beginning of the code line to make the handshake happen. The third struggle was to connect my *MongoDB* profile with my code. It took me a while to realize I forgot to add my URI to the env file.

I made eight functioning queries with this dataset. The first one was to count the number of documents in the collection. I used the *.estimatedDocumentCount()* function for this query. I discovered there were 3599 documents in this collection. The creator of this dataset did not lie about the number mentioned in the description and title of this dataset, which was around 3400 videos collected.

In the second query, I asked to display all the collected data in the terminal. I used the *.find({})* and *.toArray()* functions for this query. Only the first 100 documents are displayed in the terminal. The other 3499 documents were just mentioned at the end of the result. It has shown how heavy this dataset is.

The third query served to retrieve the data from the history category and only displayed their videos' titles. I used the *.distinct()* function for this query. I discovered 587 historical videos in this dataset, many of which were not in English. I have noticed some of them had their titles in Hindi or Mandarin. It shows the variety of this dataset.

The fourth query was to find documents of videos with over 100 subscribers on their channel. I used the *.find()* and *.countDocuments()* functions for this query. I found some issues with the dataset through this query. Because the number of subscribers is written in the description (i.e., everything is written as a string in this input) and does not have a subcollection, I needed to pull the numbers as a string from the description. Because of that, the results of the query were inaccurate. I did not receive an accurate number range when using comparison operators. Sometimes, the numbers do not match my request. For example, I found a lot of decimal numbers between 1 and 100, but those that were not in decimals were over 100.

I asked for a video with a specific ID for the fifth query. I used the *.findOne()* function for this query I looked through the data collection in the *MongoDB Atlas*, took an ID randomly, and asked for it in the code. It worked because I verified that the pulled data matched the document in my *MongoDB Atlas*.

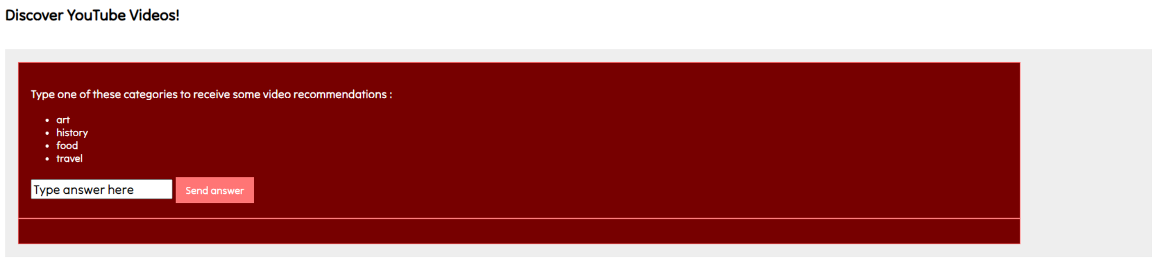
For the sixth query, I filtered the art and music category by displaying only the videos with less than 400 subscribers on the channel, then giving only the title and its description in the results. I used the *.aggregate()* function for this query. As mentioned in the fourth query, the results were again inaccurate because the subscribers' numbers are in a string and do not have their subcollection. Plus, the numbers are written with letters too, such as 90K or 1.1M, so it messes up the accuracy of the results. However, I discovered popular videos in this collection by seeing *NSYNC*'s *Pop* Music video as part of the results, which creates more variety in this dataset.

The seventh query was finding the food category videos, sorting them alphabetically, and limiting the results to five videos. I9 used the *.find()*, *.sort()*, and *.limit()* functions for this query. It worked, and again, Japanese writings and the *BuzzFeed Video* channel appeared in the results.

The last query was finding one video according to the input categories. I used the *.findOne()* function for this query. I mixed categories that were not part of this dataset and some existing categories, and it could still pull one document that matched one of the existing categories.

The thumbnail images of each video visualized the data the query pulled, accompanied by their video links. I used the aggregation query where only videos coming from the arts and music category with a number of subscribers below 400 are pulled. Because of the format of this dataset, my options for queries and search criteria were minimal. So, I decided to create a search engine where the user can discover YouTube videos by searching through these four categories: food, travel, history and art. It took me a while to figure out how to add multiple categories in this search engine because *res.send()* could not handle more than one variable. With the help of Sabine, I was able to create four different queries for each category. I then assigned each thumbnail to its associated video description.

The user must type the video category they want to discover.



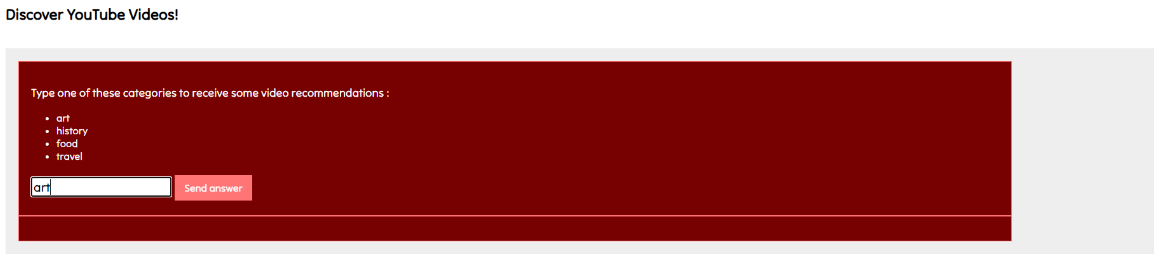
Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

Type answer here

If they type ‘art,’ they receive the videos in the art category.

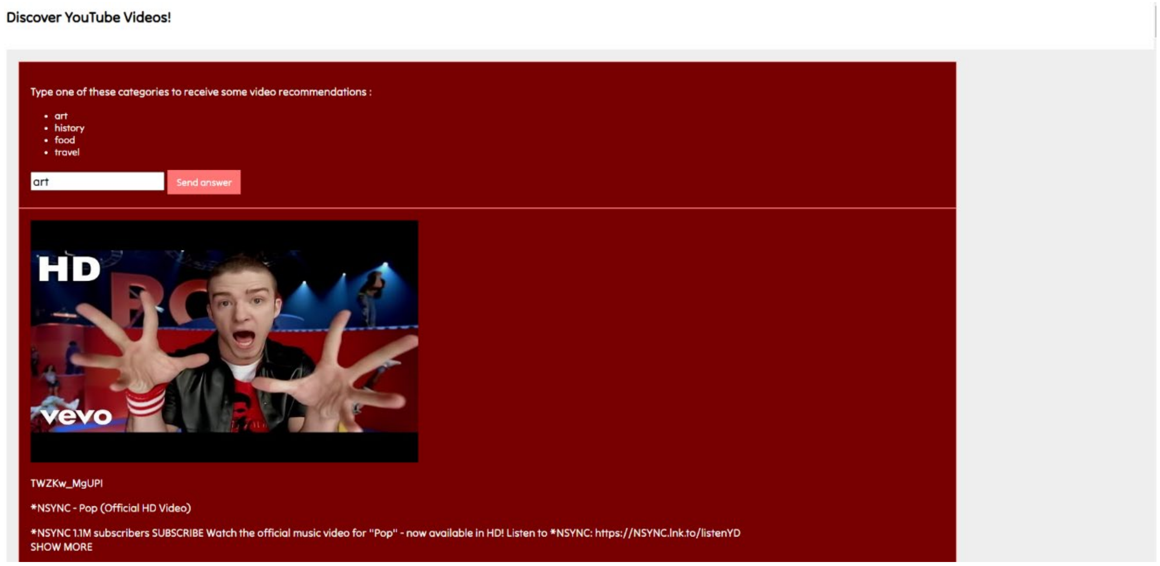


Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

art



Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

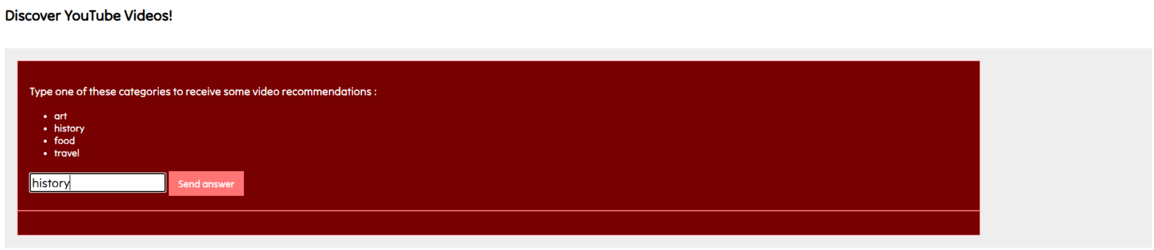
art

TWZKw_MgUPI

*NSYNC - Pop (Official HD Video)

*NSYNC 1.1M subscribers SUBSCRIBE Watch the official music video for "Pop" - now available in HD! Listen to *NSYNC: https://NSYNC.lnk.to/listenYD
SHOW MORE

If they type ‘history,’ they receive the videos in the history category.

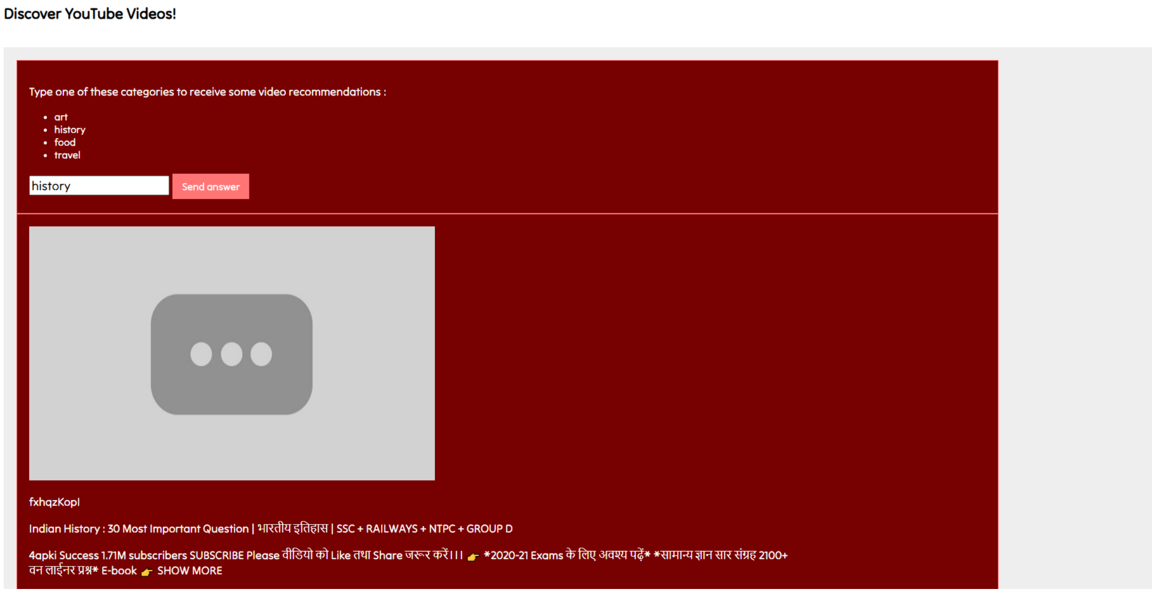


Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

history



Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

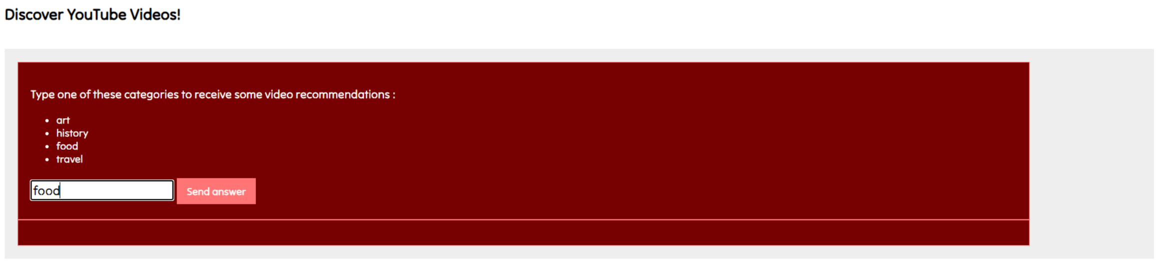
history

fxhqzKopI

Indian History : 30 Most Important Question | भारतीय इतिहास | SSC + RAILWAYS + NTPC + GROUP D

4apki Success 1.71M subscribers SUBSCRIBE Please वीडियो को Like तथा Share जरूर करें।।। 👉 *2020-21 Exams के लिए अवश्य पढ़ें* *सामान्य ज्ञान सार संग्रह 2100+ वन लाईनर प्रश्न* E-book 👉 SHOW MORE

If they type ‘food,’ they receive the videos in the food category.

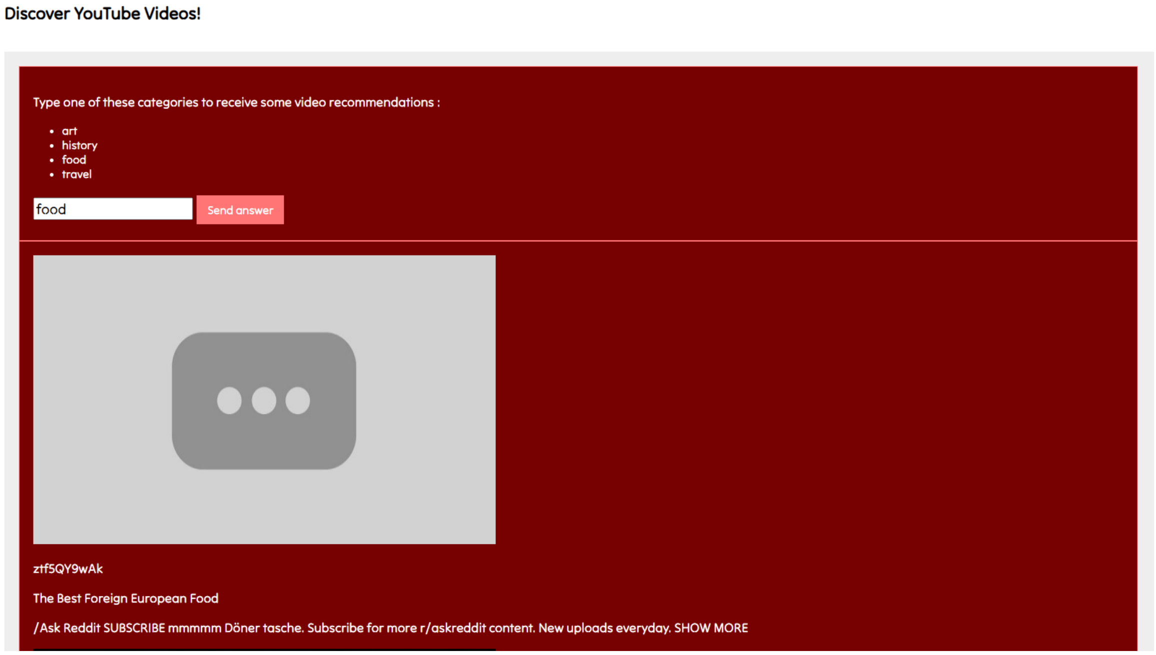


Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

food



Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

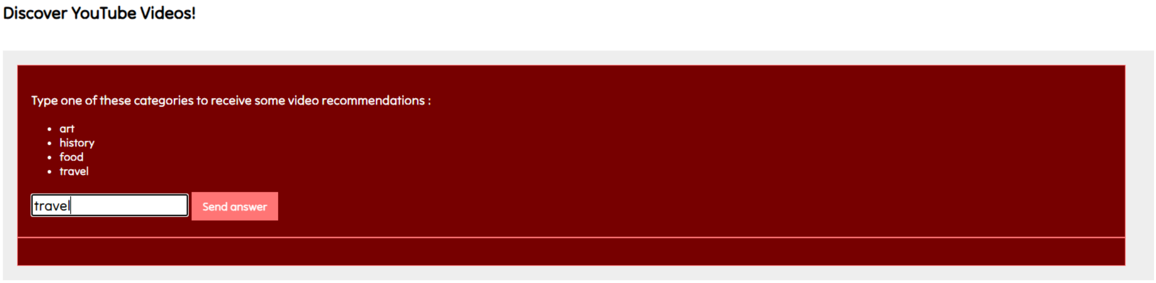
food

ztf5QY9wAk

The Best Foreign European Food

/Ask Reddit SUBSCRIBE mmmmm Döner tasche. Subscribe for more r/askreddit content. New uploads everyday. SHOW MORE

If they type ‘travel,’ they receive the videos in the travel category.

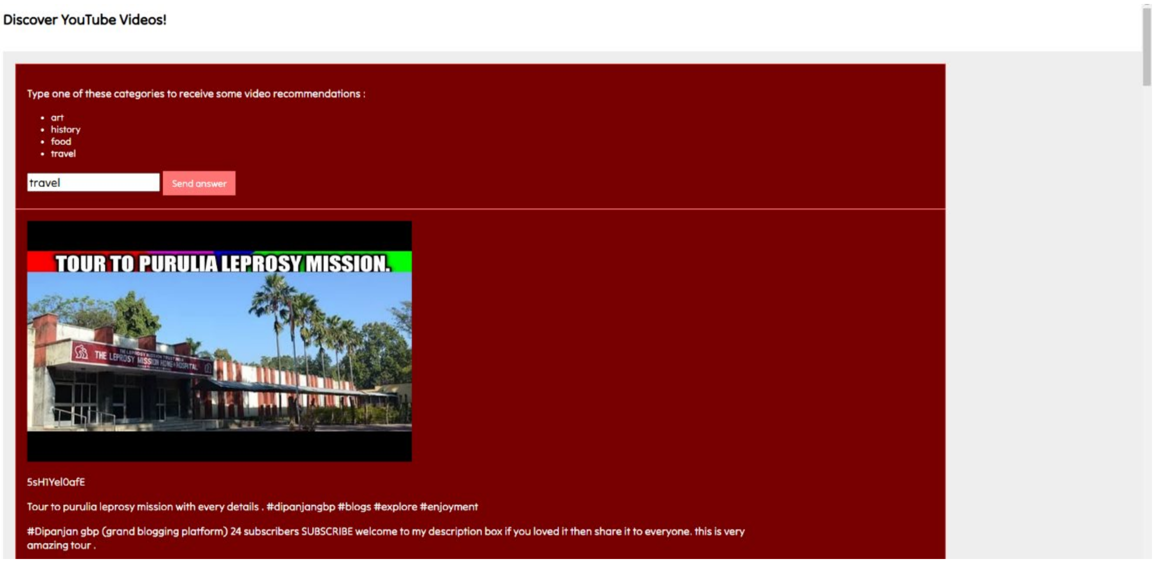


Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

travel



Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

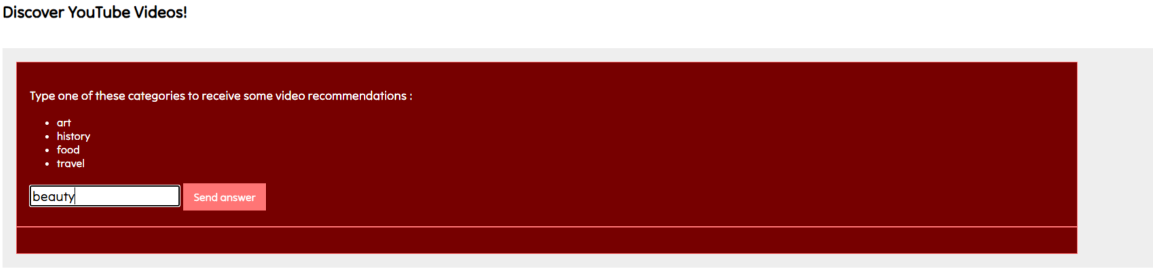
travel

5sH1Yel0afE

Tour to purulia leprosy mission with every details . #dipanjangbp #blogs #explore #enjoyment

#Dipanjan gbp (grand blogging platform) 24 subscribers SUBSCRIBE welcome to my description box if you loved it then share it to everyone. this is very amazing tour .

And if they provide a word that is not part of the categories, they will receive an error message.

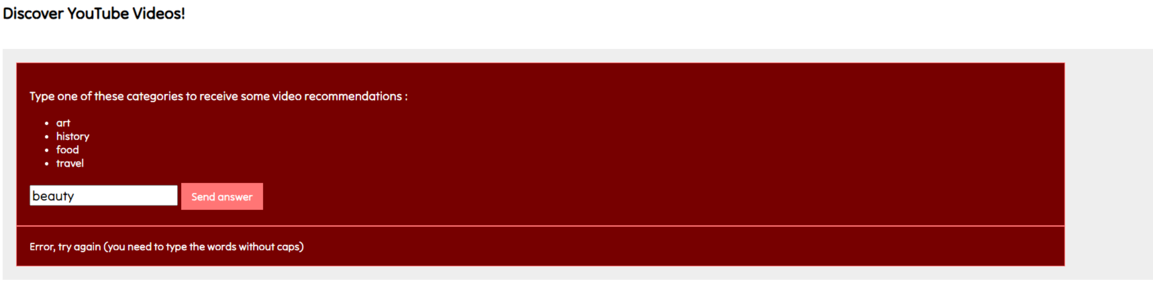


Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

beauty



Discover YouTube Videos!

Type one of these categories to receive some video recommendations :

- art
- history
- food
- travel

beauty

Error, try again (you need to type the words without caps)

The dataset format was badly written because some videos have over 400 subscribers (e.g., *NSYNC YouTube* channel). I also used different thumbnails for the inaccessible videos (i.e., which I discovered while searching for the thumbnails), one for those now private and another for those whose channels or videos are now deleted. I found it very interesting that the dataset still has videos unavailable to the public; it shows that the data was not cleaned recently.

Overall, I discovered that the dataset used for this assignment might not be a good fit for my final project or is at least very limited in its options. I tried various MongoDB functions, and only a few could pull data from this dataset. Plus, some document fields were too descriptive, so it was hard to pull data from them. I always received empty arrays or null if I couldn't find a document by searching for a specific word within a string in the title or description fields. For example, if I want to search all the documents containing the word "India" in their titles, it is impossible because the query is not precise enough. I would need to give the full title or description to receive something in the terminal. I think it is in how things were categorized; there are only a few categories and no subcollections in this dataset, limiting the possibilities of pulling out data. I also looked at the CSV file and noticed that some elements in the categories could have been categorized. For example, in the description category, many elements written in it could have been divided, such as the content creators' names or the total of subscribers. The only category working well in this dataset is "category" because it is the only category that requires few keyword inputs for the MongoDB functions. All the other categories are too descriptive. For obscure reasons, I cannot insert the request alone in the *.find()* function; I need to pass them into a variable and use that variable to make it work. If I want to use this dataset, I must edit it by creating subcollections in its categories to pull data effectively. However, I see that this dataset has a variety of collected videos, from the language to the popularity of the channels they're coming from. It is very disappointing that the dataset does not have many divisions between its elements because the diversity in its collections had a lot of potential for my final project.