## Sentiment Process Flow Remove stop words Sentiment Total TICKER Collect Conference Tokenize TYPE OF DOC - CC Call Transcript the text PERIOD - Q123 DATE OF CALL 5-11-23 OVERALL SCORE AVERAGE Score OVERALL SCORE BY PERCENTAGE OF TOP Paragraph number of occurrence of each topic Sentence Google Drive Share Sentiment Detail CC\_WSP.TO\_Q123\_5-11-23 TYPE OF DOC - CC TICKER TICKER - WSP.TO TYPE OF DOC PERIOD OF DOC - Q123 PERIOD DATE OF CC - 5-11-23 KEY WORD PARAGRAPH PARAGRAPH SENTIMENT SCORE STATE STREET n GLOBAL ADVISOBS cation: General

We need the layout of the 4 tables.

- 1. Sentiment Detail table
- 2. Summary table
- 3. Company table
- 4. Topics table.

Company info table that holds all stocks we are looking at send daily price code to bruno tickers are wrong

## Pull document

Store it in format that can be searched and retrieved text file on cloud storage - naming convention eg WBS\_NEWS\_2-14-25-12:30

Score document and store by ticker date/time type article number if pulling more than one story couter

Use C US

For example GO to API and pull historical call for Q22023

Store that data on cloud storage

Access key word table datastore
Access company info table
Leverage sector from company info table

Search document for key works from sector Score and store each paragraph of entire earnings call

Run code that will summarize the scores for that call.

using those run thur code

Python CRUD needs to be understood

Send out docs again - highlight charlies

App engine

- 1. Company Info Set up new company info table
- 2. Good to practice on your own project leveraging Python CRUD example

**Andrew** 

Keyword entry

Same as company info - need to have front end to load keywords into table

Datastore organization - need to understand and document all datastore tables and identify which ones are used in live app engine code need fields- William

Daily prices - use yahoo API to build in cron job that scans company info table and loads prices daily. Bruno team - **Devarshee Roy** 

Need to back fill prices

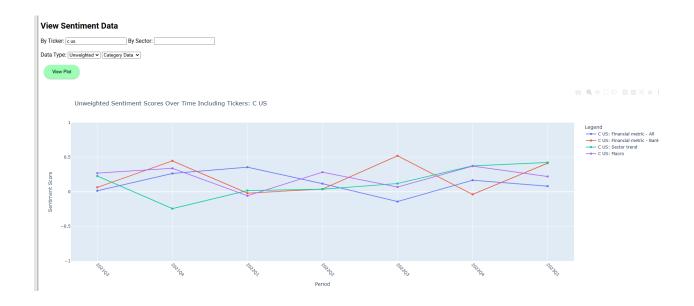
Angello/Joe

Datastore Cloud Storage Compute engine

- 1. Need to allow other projects to access the resources in sentiment analysis project
- 2. Need to be able to export data in datastore table to a cloud storage bucket as a csv or comma delimited file

Graph - Nazmus / Akhil

Work on one graph which takes the sentiment summary table and plots it



## Earnings call

## **API - GET CALL**

Store entire call on cloud storage identified by quarter, year, ticker and date of call

Score thru model on compute engine

Summarize

Plot

To do

Future state

How to train model Identify entities Machine learning

Category	Task	Pri orit y	Description	Status
Application front end	Company Info Table	hig h	Flask process to store data in Company Info	Rebuild code in new project
	Company Data	low	Load companies into Company Info table custom key	
Application front end	Topics Table	hig h	Flask process to store data in Topics	
	Load Topics	hig h	Load all keywords, classifications, sector and importance into table	
	Graph Average Scores	hig h	Graph to plot average scores for one company over periods selected	
	Graph to plot average scores for sector		Graph to plot the average scores for each company in a selected sector for a selected period	
	Sentiment scoring		Program to take a conference call, identify each paragraph where a keyword appears, store the paragraph keyword and a sentiment score for that paragraph	
	Sentiment score loading	low	Need load program to load existing scored data into sentiment detail table.	

	Sentiment Detail		Program to take a scored conference call and summary each classification by average score, weighted score and number of times keyword is mentioned	
	Sentiment Total	hig h	Need to be able to summarize scoring detail into total table to drive graphs	
Data loads	Load conference calls	hig h	Flask to upload CC transcripts and execute scoring module	pull cc from capital IQ
	Daily prices	hig h	Process to get all prices for current day based upon companyinfo table	Yahoo API'S for prices. daily prices bucket, check instance for code. cron
	Historical prices	low	Back fill prices of companies on table	
	Load Topics	me d	Load all keywords, classifications, sector and importance into table	
	Load Companies	me d	Batch program to load companies to Company Info tabler custom key	
	Load exiting scores	low	Need load program to load existing scored data into sentiment detail table. Program needs to add Ticker	NEED OLD DATA

Environme nt Setup	Linux	hig h	https://cloud.google.com/pyt hon/docs/getting-started/getti ng-started-on-compute-engin e	
			Prepare for Python	
			access table from other project	
	login interface		security setup	
	Test environment		SETTING UP NEW PROJECT	
	branding UCONN			
	Earnings call load	hig h	Get SSGA cc MSFT call scored	
	load companies	hig h	MSFT, NOW, CRM, ADBE, ORCL and INTU.	
	Add keywords	hig h	Key words: - AI - Monetization of AI - LLM - Training of LLM - GPU - AI software functionality	