Project Outline

This project includes downloading loan contracts from an online website, SEC EDGAR
https://www.sec.gov/edgar/searchedgar/companysearch.html, into txt files and extracting information
from those downloaded txt files using Python.

Required Deliverables for Project Completion

Read below very carefully.

Please make sure that you agree with below terms before applying for this project. If you are not
willing to follow the steps below, please do **NOT** apply for this project.

- Upon the completion of Step 1, you need to provide the following:
    - All txt files downloaded from an online website
    - As you download those files, save the file name and URL in a separate excel file
    - If any issue is found from text files, I will provide feedback
    - You will need to resolve the issue before moving on to the Step 2
- Upon the completion of Step 2, you need to provide the following:
    - A csv file that contains information extracted from all txt files
    - If any issue is found, I will provide feedback
    - You will need to resolve the issue before delivering the csv file and your python codes
- Upon completion of Steps 1 and 2, you need to provide the following:
    - The final version of the csv file that contains all the required information extracted from
      txt files obtained from Step 1.
    - Your python code from Steps 1 and 2 (The python code must have adequate comments
      for each sequence of commands so an independent programmer can understand the
      code and replicate the results)
    - Once it is confirmed that I can run your python codes on my computer without any
      issues and also generate the same outputs of txt files in Step 1 and the csv file from Step
      2, the project completion will be announced and your payment will be processed
    - Successful completion of both Steps 1 and 2 is required.

Step 1 Download the Actual Loan Contract from EDGAR

Use Python to complete the following process.

- You will be given an excel file that contains observations with **CIK** and **DATE**
    - CIK is a company identifier
    - DATE is loan contract origination/inception date
- Go to https://www.sec.gov/edgar/searchedgar/companysearch.html
- Enter the provided **CIK** in "**Company and Person Lookup**"
- Restrict **Filing Type** to **8-K**, **10-K**, or **10-Q**.
- Restrict **Filing Dates** from **DATE** to **DATE plus 18 months**

- o Filing Date is the date on which a document (i.e., 8-K, 10-K, or 10-Q) containing the loan contract is filed to the EDGAR system and it can be different from DATE (i.e., loan contract origination/inception date).
- The above search will give you potential candidates for files that you need to download.
- Among the candidates, keep the one that satisfies below requirements.
    - o Include one or more of the following 10 terms in **CAPITAL** letters: ''credit agreement'', ''loan agreement'', ''credit facility'', ''loan and security agreement'', ''loan & security agreement'', ''revolving credit'', ''financing and security agreement'', ''financing & security agreement'', ''credit and guarantee agreement'', and 'credit & guarantee agreement''.
    - o If one or more of these 10 terms are found, then it should also contain the capitalized search term ''table of contents'' within 60 lines after the initial search term.
- Among those candidates that qualify the search term requirements, keep the one that contains **contract date** that equals to **DATE** that is provided with CIK.
    - o **contract date** is the first date that follows "Date as of", "dated as of", or "date as of".
- Finally, download the contract portion of the filing (see below examples for more details).
    - o Name it as "CIK_DATE"
    - o For each downloaded file, save the URL using the provided excel file.
- You should be aware that there are variations in the format. You need to code accordingly. Please see below for a few examples we provide.

First Example (CIK = 0000007536 and DATE = 2/22/2001)

- For example, suppose that you are given CIK as **0000007536** and DATE as **2/22/2001**
- If you enter **0000007536** as CIK at https://www.sec.gov/edgar/searchedgar/companysearch.html you will then see the company name is "ARROW ELECTRONICS INC"
- Restrict Filing Type to 8-K, 10-K, or 10-Q
- Restrict Filing Date from 2/22/2001 to 2/22/2002
- You need to search if any of those filing meet the following requirements
    - o Include one or more of the following 10 terms in capital letters: ''credit agreement'', ''loan agreement'', ''credit facility'', ''loan and security agreement'', ''loan & security agreement'', ''revolving credit'', ''financing and security agreement'', ''financing & security agreement'', ''credit and guarantee agreement'', and 'credit & guarantee agreement''.
    - o If one or more of these 10 terms are found, then it should also contain the capitalized search term ''table of contents'' within 60 lines after the initial search term.
- In this example, **10-K405 filed on 3/30/2001** contains the search term "CREDIT AGREEMENT".
    - o Within the filing, you will see multiple files. Again check for files that qualify the above two criteria or 10 search terms and "table of contents" within 60 lines.
    - o "ex10hcredit3year.txt" satisfies the search term requirements and also contains a contract date **2/22/2001.** Make sure that this date matches with DATE.
        - ▪ Note that "ex10icreditagreement.txt" also includes the search term "CREDIT AGREEMENT". However, the contract date for it is **12/18/2000**.

- o If you click on the document name, you will be directed to the following URL https://www.sec.gov/Archives/edgar/data/7536/000000753601500006/ex10hcredit3year.txt
- o Save it as a text file named "0000007536_02222001.txt", which is CIK_DATE.
  - ▪ Within the same 10-K405 filing, note that there is another debt contract with origination date as 12/18/2000. Then it means that you need to also download "ex10icreditagreement.txt", which includes **12/18/2000** as contract date, in a separate text file and name it as "0000007536_12182000.txt". URL for this txt file is https://www.sec.gov/Archives/edgar/data/7536/000000753601500006/ex10icreditagreement.txt.
- o Add the text file name and URL to the provided excel file.

Second Example (CIK = 0000006885 and DATE = 8/21/2003)

- For example, suppose that you are given CIK as **0000006885** and DATE as **8/21/2003**
- If you enter **0000006885** as CIK at https://www.sec.gov/edgar/search/, you will be told that it is "STAGE STORES INC"
- Restrict Filing Type to 8-K, 10-K, or 10-Q
- Restrict Filing Date from 8/21/2003 to 8/21/2004
- You need to search if any of those filing meet the following requirements
  - o Include one or more of the following 10 terms in capital letters: ''credit agreement'', ''loan agreement'', ''credit facility'', ''loan and security agreement'', ''loan & security agreement'', ''revolving credit'', ''financing and security agreement'', ''financing & security agreement'', ''credit and guarantee agreement'', and 'credit & guarantee agreement''.
  - o If one or more of these 10 terms are found, then it should also contain the capitalized search term ''table of contents'' within 60 lines after the initial search term.
- In this example, **10-Q filed on 8/29/2003** contains the keyword "CREDIT AGREEMENT".
  - o Within the filing, you will see multiple files. Again check for files that qualify the above two criteria or 10 search terms and "table of contents" within 60 lines.
  - o "ex10_1.htm" satisfies the search term requirements and also contains a contract date **8/21/2003**. Make sure that this date matches with DATE.
  - o If you click on the document name, you will be directed to the following URL https://www.sec.gov/Archives/edgar/data/6885/000000688503000053/ex10_1.htm
  - o Save the text file as "0000006885_08212003.txt", which is CIK_DATE.
  - o Add the text file name and URL to the provided excel file.

Third Example (CIK = 0000005907 and DATE = 10/6/2004)

- For example, suppose that you are given CIK as **0000005907** and DATE as **10/6/2004**
- If you enter **0000005907** as CIK at https://www.sec.gov/edgar/search/, it will be told that it is "AT&T CORP"
- Restrict Filing Type to 8-K, 10-K, or 10-Q
- Restrict Filing Date from 10/6/2004 to 10/6/2005
- You need to search if any of those filing meet the following requirements

- o Include one or more of the following 10 terms in capital letters: ''credit agreement'', ''loan agreement'', ''credit facility'', ''loan and security agreement'', ''loan & security agreement'', ''revolving credit'', ''financing and security agreement'', ''financing & security agreement'', ''credit and guarantee agreement'', and 'credit & guarantee agreement''.
  - o If one or more of these 10 terms are found, then it should also contain the capitalized search term ''table of contents'' within 60 lines after the initial search term
- In this example, **8-K filed on 10/7/2004** contains the keyword "CREDIT AGREEMENT".
  - o Within the filing, "eightk100604exh10i38.txt" document contains a contract that was signed on **10/6/2004.** Make sure that this date matches with DATE.
  - o If you click on the document name, you will be directed to the following URL https://www.sec.gov/Archives/edgar/data/5907/000000590704000156/eightk100604exh10i38.txt
  - o Save the text file as "0000005907_10062004.txt", which is CIK_DATE.
  - o Add the text file name and URL to the provided excel file.

Fourth Example (CIK = 0000003333 and DATE = 3/30/1999)

- For example, suppose that you are given CIK as **0000003333** and DATE as **3/30/1999**
- If you enter **0000003333** as CIK at https://www.sec.gov/edgar/search/, it will be told that it is "ALBERTSONS INC"
- Restrict Filing Type to 8-K, 10-K, or 10-Q
- Restrict Filing Date from 3/30/1999 to 3/30/2000
- You need to search if any of those filing meet the following requirements
  - o Include one or more of the following 10 terms in capital letters: ''credit agreement'', ''loan agreement'', ''credit facility'', ''loan and security agreement'', ''loan & security agreement'', ''revolving credit'', ''financing and security agreement'', ''financing & security agreement'', ''credit and guarantee agreement'', and 'credit & guarantee agreement''.
  - o If one or more of these 10 terms are found, then it should also contain the capitalized search term ''table of contents'' within 60 lines after the initial search term
- In this example, **8-K filed on 4/6/1999** contains the keyword "CREDIT AGREEMENT".
  - o Within the filing, "0000003333-99-000006.txt" document contains a contract that was signed on **3/30/1999.** Make sure that this date matches with DATE.
  - o If you click on the document name, you will be directed to the following URL https://www.sec.gov/Archives/edgar/data/3333/0000003333-99-000006.txt
  - o Save the text file as "0000003333_03301999.txt", which is CIK_DATE.
  - o Add the text file name and URL to the provided excel file.

Below are the links to webpages that explains how to use python to download txt files from EDGAR.

- https://www.codeproject.com/Articles/1227268/Accessing-Financial-Reports-in-the-EDGAR-Database
- http://kaichen.work/?p=59
- https://pypi.org/project/sec-edgar-downloader/
- https://pypi.org/project/edgar/

Step 2 Extract Information into a CSV File

Using all the txt files that you downloaded from EDGAR in Step 1, you need to extract information to fill in the template in the provided CSV file.

- For each txt file, you need to extract the following information.
    - Contract Date
      You can find the contract start date of each contract through the keyword search "Date as of", "date as of", "dated as of".
    - Renegotiated
      If within the first 60 lines of the contract contains one or more of the following keywords, then code Renegotiated as one, else zero.
        - In capital letters: "AMENDED", "RESTATED"
        - If these terms are found and Renegotiated is coded as one, scrape the line that includes those keywords into Renegotiated_Phrase column for the verification purpose
    - Existing Agreement Date
      If Renegotiated is coded as one, then you need to find the Existing Agreement Date. This date is reported before the discussion of items that appears on the table of contents. In most cases, these dates are labeled as "Existing" credit facility. It also follows the phrase "Date as of".
        - After adding the date to the Existing Agreement Date column, scrape the line where you obtained the date information and add it into the Existing Agreement Date Phrase column.
    - Covenant Categories
      From the table of contents, scrape section names that include the word "Covenant"
    - Covenant Names and Descriptions
      Go to the Covenant section, scrape all the covenant names and descriptions.
- You should be aware that there are variation in the format. You need to code accordingly. Please see below form a few example we provide.

First Example (contract file name "0000002969_09161999.txt")

- Contract Date scraped from
  dated as of
  September 16, 1999
- Renegotiated scraped from
  AMENDED AND RESTATED CREDIT AGREEMENT
  Thus, Renegotiated is coded as one and the above phrase is added as Renegotiated_Phrase
- Existing Agreement Date scraped from
  WHEREAS, in order to finance the Stock Acquisition, to refinance
  existing indebtedness, to pay fees and expenses in connection with the
  Acquisitions and the financing thereof, to support commercial paper issued by
  the Parent, and to provide for the working capital and general corporate needs
  of the Parent and its subsidiaries prior to and following the Stock Acquisition,
  the Parent entered into a Credit Agreement, dated as of July 6, 1999 (the

"Existing Credit Agreement");

Thus, 7/6/1999 is added as Existing Agreement Date and **the Parent entered into a Credit Agreement, dated as of July 6, 1999 (the "Existing Credit Agreement");** is added as Existing Agreement Date Phrase

- Covenant Categories scraped from **TABLE OF CONTENTS**
  ARTICLE V Affirmative Covenants
  ARTICLE VI Negative Covenants
  that include the term "covenant"
- Go to ARTICLE V and ARTICLE VI to scrape Covenant Names and Descriptions
  See the provided excel file for the example

Second Example (contract file name "0000006951_03121999.txt")

- Contract Date scraped from
  Dated as of March 12, 1999
- Renegotiated is coded as zero because the keywords do not appear within the first 60 lines
- Skip Existing Agreement Date and Existing Agreement Date Phrase
- Covenant Categories scraped from **TABLE OF CONTENTS**
  ARTICLE V COVENANTS OF THE BORROWER
  SECTION 5.01. Affirmative Covenants
  SECTION 5.02. Negative Covenants
  SECTION 5.03. Financial Covenants
  that include the term "covenant"
- Go to ARTICLE V SECTION 5.01, 5.02, 5.03 to scrape Covenant Names and Descriptions
- See the provided excel file for the example

Third Example (contract file name "0000007536_02222001.txt")

- Contract Date scraped from
  Dated as of February 22, 2001
- Renegotiated scraped from
  AMENDED AND RESTATED THREE YEAR CREDIT AGREEMENT
  Thus, Renegotiated is coded as one and the above phrase is added as Renegotiated_Phrase
- Existing Agreement Date scraped from
  WHEREAS, the Company has requested the Banks to make available a three year revolving credit facility that amends and restates the Second Amended and Restated Credit Agreement, dated as of August 16, 1995, among the Company, certain of its subsidiaries, certain financial institutions, Chase Securities Inc., as arranger, Bankers Trust Company, as collateral agent, and The Chase Manhattan Bank, as administrative agent (as in effect on the date hereof, the "Existing Credit Agreement");
  Thus, 8/16/1995 is added as Existing Agreement Date and **the Company has requested the Banks to make available a three year revolving credit facility that amends and restates the Second Amended and Restated Credit Agreement, dated as of August 16, 1995,** is added as Existing Agreement Date Phrase
- Covenant Categories scraped from **TABLE OF CONTENTS**

SECTION 10. AFFIRMATIVE COVENANTS
SECTION 11. NEGATIVE COVENANTS
that include the term "covenant"

- Go to SECTION 10 and SECTION 11 to scrape Covenant Names and Descriptions
See the provided excel file for the example

Fourth Example (contract file name "0000007332_07172000.txt")

- Contract Date scraped from
DATED AS OF JULY 17, 2000
- Renegotiated is coded as zero because the keywords do not appear within the first 60 lines
- Skip Existing Agreement Date and Existing Agreement Date Phrase
- Covenant Categories scraped from **TABLE OF CONTENTS**
ARTICLE VI COVENANTS
6.1 Information
6.2 Affirmative Covenants
6.3 Negative Covenants
6.4 Financial Covenants
that include the term "covenant".
Note that 6.1 is included although it does not include the term "covenant".
- Go to ARTICLE VI to scrape Covenant Names and Descriptions
- See the provided excel file for the example

Fifth Example (contract file name "0000003000_07272000.txt")

- Contract Date scraped from
dates as of
July 27, 2000
- Renegotiated is coded as zero because the keywords do not appear within the first 60 lines
- Skip Existing Agreement Date and Existing Agreement Date Phrase
- Covenant Categories scraped from **TABLE OF CONTENTS**
ARTICLE V COVENANTS
that include the term "covenant".
- Go to ARTICLE V to scrape Covenant Names and Descriptions
- See the provided excel file for the example