

# Text Classification

## PROBLEM STATEMENT

Credit Agreements are legal contracts agreed and signed between different parties involved in a transaction, some are Borrower who borrows money, Lenders are one or more parties who come together to fund the borrower's request, Agents are legal bodies who mediate this transaction.

Provided below are some of the legal clauses extracted from Credit Agreements. It also provides what type of legal clause they belong to. Your mission is to come up with a model that will help classify the given passages into its legal clause type.



# GOALS

1. Build a model to classify the text snippets from Credit Agreements
2. A WORKING CODE that covers the following:
  - a. Data prep - The snippets are given below in a table, feel free to move it into an input form that suits your design. Please make sure it's dynamically read from any storage of your choice (json, csv etc.) so we can supply new training dataset easily
  - b. Training a model of your choice to classify the snippets
  - c. Model inference for the test data given below for prediction. Please make sure it's dynamically read from a data store, so we can run them on newer dataset
3. A Presentation containing the following:
  - a. Solution options considered
  - b. The approach that you have chosen and it's detailed description
  - c. Model accuracy with precision and recall statistics including a confusion matrix for the data points that you set aside for your validation
  - d. How can you improve the accuracy and generalization of this solution?

# Considerations

1. While the given dataset is small and a simple keyword based approach might seem sufficient; You are encouraged to think about the solution in a generic way. A simple heuristic approach will have a negative impact in scoring.
2. You can use any library for your solution and code it as a script or a python notebook

# Training Data

## Class type

1. This CREDIT AGREEMENT is entered into as of November 23, 2010, among Dkin' Finance Corp., a Delaware corporation (Borrower) and, upon the effectiveness of its joinder to this Agreement, DKN Brands Holdings, Inc., a Delaware corporation and, upon the Assumption, DKN Brands, Inc., a Delaware corporation, each lender from time to time party hereto, and Clays Bank PLC, as Administrative Agent, Swingline Lender and L/C Issuer.

Preamble

2. This agreement is dated 22 December 2014 and made between Parties XYZ Gold Mining Company Limited, The Subsidiaries of the Borrower listed in Part I of Schedule 1 as original guarantors, Absa Bank Limited and Nedbank Limited as coordinators, The Financial Institutions listed in Part II of Schedule 1 as mandated lead arrangers and lenders and Nedbank Limited as agent of the other Finance Parties

Preamble

3.	This Agreement and shall be governed by and interpreted in accordance with the laws of the State of New York	Governing Law
4.	The choice of South African law as the governing law of the Finance Documents expressed to be governed by South African law will be recognised and enforced in its jurisdiction of incorporation	Governing Law
5.	This agreement and other loan documents shall be governed by and in adherence with the law of the United Kingdom.	Governing Law
6.	Eligible receivables are not subject to any limitation on assignment or other restriction which would, under the local governing law of the contract creating such receivable, have the effect of restricting the assignment for or by way of security or the creation of security over such receivable generally;	Other

7.	“Acceptance Condition” means the condition with respect to the number of acceptances to the Offer which must be secured to declare the Offer unconditional as to acceptances which shall not be less than 90% of the Target Shares to which the Offer relates.	Other
8.	Borrowers will indemnify each Lender against any and all loss or expense which it may sustain or incur	Indemnification
9.	The Borrower shall indemnify all parties, and each Related Party of any of the foregoing Persons (each such Person being called an “Indemnatee”) against, and hold each Indemnatee harmless from, any and all losses, claims, damages, liabilities and related expenses	Indemnification
10.	Administrative Agent shall be entitled to reimbursement of its reasonable out-of-pocket expenses incurred hereunder and indemnity for its actions	Indemnification

11.	Syndication Agent shall be entitled to reimbursement of its reasonable expenses incurred on legal charges and indemnity for its actions	Indemnification
12.	Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in the definition of "Required Lenders"	Lender Defaulting
13.	Lender during the defaulting Period with respect to such Defaulting Lender, such Defaulting Lender shall be deemed not to be a "Lender" for purposes of voting on any matters	Lender Defaulting
14.	This TERM LOAN AGREEMENT, dated as of April 24, 2020, is by and among Pepco Holdings, Inc. ("Borrower"), the Lenders (defined herein), JPC Bank, N.A., as administrative agent, and The Bank of Scotia, as documentation agent.	Preamble

15.	“Applicable Rate” means, the following percentages per annum, based upon the Consolidated Leverage Ratio as set forth in the most recent Compliance Certificate received by the Administrative Agent	Other
16.	This Agreement shall be governed by the laws of the State of New York. If any term of this Agreement or the application thereof to any person or circumstances shall to any extent be invalid or unenforceable, the remainder of this Agreement or the application of such terms to any person or circumstances other than those as to which it is invalid or unenforceable shall not be affected thereby, and each term of this Agreement shall be valid and enforceable to the fullest extent permitted by law.	Governing Law



17.	The Lenders agree to indemnify the Administrative Agent and the Collateral Agent, each in its capacity as such (to the extent not reimbursed by the Borrowers and without limiting the obligation of the Borrowers to do so), ratably according to their respective portions of the total Term Loans and Incremental Revolving Facility Commitments.	Indemnification
18.	This CREDIT AGREEMENT is entered into as of December 11, 2016 among TD TECHNOLOGIES INCORPORATED, a Delaware corporation (the “Borrower”), the Guarantors (defined herein), the Lenders (defined herein) and BANK OF RICO, N.A., as Administrative Agent.	Preamble

19.	THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS AND ANY CLAIMS, CONTROVERSY, DISPUTE OR CAUSE OF ACTION BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY AND THEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF INDIA.	Governing Law
20.	The Loan Parties shall indemnify the Administrative Agent against, and hold each Indemnitee harmless from, any and all losses, claims, damages, liabilities and related expenses ...	Indemnification
21.	This CREDIT AGREEMENT is made and entered into as of March 6, 2018, by and among XYZ Corp, a Wisconsin corporation as Borrower and SSB BANK USA, in its capacity as collateral agent and BSB BANK PLC, in its capacity as administrative agent for and on behalf of the Lenders ...	Preamble

22.	Any Lender defaulting, as reasonably determined by the Administrative Agent and the Borrower, has failed to fund any portion of its Revolving Loans or participations in Letters of Credit or Swingline Loans within three Business Days of the date are subject to legal proceedings	Lender Defaulting
23.	Lender shall be deemed to be a Defaulting Lender as of the date established therefore by the Administrative Agent is subject to debtor relief law terms	Lender Defaulting
24.	Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in the definition of "Required Lenders"	Lender Defaulting

25.	“Disinterested Director” shall mean, with respect to any person and transaction, a member of the Board of Directors of such person who does not have any material direct or indirect financial interest in or with respect to such transaction.	Other
26.	The Borrower and certain lenders and agents are parties to the Credit Agreement, dated as of May 18, 2012 (as amended and restated as of July 14, 2015 and as amended, supplemented or otherwise modified prior to the Effective Date, the “Existing Credit Agreement”)	Other

# Test Data

1. Amendment No. 1 dated as of February 4, 2016 (this “Amendment No. 1”), to the Amendment and Restatement Agreement dated as of January 10, 2016 (the “Existing Restatement Agreement”), among GGG HOLDING (U.S.) INC., (the “Borrower”), CGG, a societe anonyme incorporated under the laws of France (“Parent”), the LENDERS from time to time party thereto and SUISSE AG, as Administrative Agent for the Lenders (in such capacity, “Administrative Agent”) and as Collateral Agent (“Collateral Agent”) for the Lenders.
2. Subject to the Legal Reservations, (a) the choice of law specified in each Finance Document as the governing law of such Finance Document will be recognized and enforced in its Relevant Jurisdictions and (b) any judgment obtained in New York (or in the jurisdiction of the governing law of such Finance Document) in relation to a Finance Document will be recognized and enforced in its Relevant Jurisdictions.
3. This Agreement, and any non-contractual obligations arising out of or in connection with it, shall be governed by, and construed in accordance with, English law.

4.	Each Lender agrees to indemnify the Administrative Agent and hold it harmless, rateably according to its Applicable Percentage from and against any and all losses, claims, damages, liabilities and related expenses, including the fees, charges and disbursements of any counsel, which may be incurred by or asserted against the Administrative Agent in any way relating to or arising out of the Loan Documents or the transactions therein contemplated.
5.	Any Lender that (a) has failed to (i) fund all or any portion of its Loans within two Business Days of the date such Loans were required to be funded hereunder (b) has notified any Borrower or the Administrative Agent in writing that it does not intend to comply with its funding obligations hereunder or (c) has failed, within three Business Days after written request by the Administrative Agent or the Company.
6.	This Assignment and Assumption shall be governed by, and construed in accordance with, the law governing the Credit Agreement.

7.	As soon as practicable after any payment of Indemnified Taxes or Other Taxes by an Obligor to a Governmental Authority, the Obligor shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.
8.	Non-Defaulting Lender means, at any time, each Lender that is not a Defaulting Lender at such time.
9.	Fundco Facility Agreement means the facility agreement dated on or about the date of this Agreement and made between Fundco and the Initial Lenders (as defined in the Fundco Facility Agreement and including the Borrower) and Devco;
10...	Notwithstanding any provision of this Agreement to the contrary, if any Lender becomes a Defaulting Lender, then, to the fullest extent permitted by applicable law, the following provisions shall apply for so long as such Lender is a Defaulting Lender.

# Deliverables

1. Code + proper README file with steps to run. Script files or python notebook is acceptable
2. Predicted output for the test dataset in a json format along with confidence score
3. A Presentation that follows the given template. Please stick to the slide numbers recommended
4. 3 min video explaining the solution and execution of the code that shows the predicted output for the test dataset. Participants are requested to explain their solution in the same flow as suggested in the presentation. It's expected to be available on video, audio, and screen record while narrating the presentation. [Suggested tool - Loom]



# Judgment Criteria:

- The jury evaluates each submission by means of the automated scoring function of the competition platform and/or manual inspection.
- A participant's final score for a problem statement round is based on the overall submission of the code file, presentation, and video summary.
- The quality of the code will be considered in scoring, the jury will review the code to verify that the solution is original.
- The jury may determine the originality of code based on a review of the code alone and/or comparison against other code submissions.