ADS-505 Team Project Form & Business Brief Templates Team Project Form

Fill out this form and business brief and submit it by the end of Module 3 in Blackboard (2 pages max for each). Reference the file, "Final Project Business Brief Requirements.doc."

Team Number: 1

Team Leader/Representative: Ryan Dunn

Full Names of Team Members:

1. Uyen Pham
2. Aaron Carr
3. Ryan Dunn

Title of Your Project: Bankruptcy Forecasting for Business Loan Applicants

Short Description of Your Project and Objectives: Our project aims to develop and automated means to evaluate financial statements of various businesses and predict whether they are likely to soon become bankrupt. Our model is to be used as supplemental support to lending and lender finance companies who specialize in lending to business customers.

Name of Your Selected Dataset and Programming Language: Polish companies bankruptcy data Data Set , Python

Description of Your Selected Dataset (source, number of variables, size of the dataset, etc.):

The dataset is about bankruptcy predictions of Polish companies that were analyzed in 2000-2012, and comes from the UCI Machine Learning Repository, contains 10,503 instances, and 64 attributes. The data has missing values and is a classification problem.

Provide your team GitHub link here: https://github.com/amcarr-ds/ads505_business_proj

How many times have your team members met so far? 2 sessions via Zoom and various communications over Slack.

What was the agreed-upon method of communication? Are you using any teamwork project management software, such as [Deepnote](#), [Trello](#), or [Asana](#)? If not, explain why? Weekly Zoom meetings and Slack Team Channel.

Comments/ Roadblocks: No roadblocks

Team Project Business Brief

Purpose:
To provide for an automated , non-bias evaluation of a company's current financial position and mitigate the financial risk associated with a business lending applicant. The output of this analysis will complement the manual review provided by junior financial analyst and be provided as supplemental analysis to business lending management teams.

Background:
Rising interest rates, inflation, and recession concerns have created a need to review the financial health of businesses seeking loans in more detail. As many firms begin to reduce headcount by laying off employees, the solvency of a business lending applicant is more relevant than in times when macroeconomics growth is not of concern. Enhancements to the current loan application process must be developed to preemptively address the current state of the economy.

Current Situation:
In current state, perspective lenders apply for a business loan with a financial institution of their choice, where a manual review of financial statements is usually performed by a junior analyst with 0-2 years of experience, using an Excel based template. This template is manually developed and can often contain data entry errors that are caught by supervisors when reviewing for accuracy and completeness. However, with competing strategic and operational priorities facing today's management teams, this review can often be quick and heavily reliant on the correctness of the initial assessment performed by the junior analyst. This presents a cause of concern for the financial institutions solvency if loans are extended to high-risk applicants.

Conclusion:
The successful implementation of the bankruptcy prediction modeling will both reduce the company's financial exposure during times of macroeconomic uncertainty and allow for management teams to focus on key strategic and operational priorities affecting their lines of business.