Proposal

EDGAR Terminal

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Submitted in partial fulfillment

Of the requirements of CSC-431

Software Engineering course project

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# **Preface**

This is a proposal for the EDGAR Terminal project for partial fulfillment of the requirements of a Software Engineering course (CSC431) project in the department of Computer Science at the University of Miami.

This proposal provides the scope and context of the project to be undertaken. It details the intended user group and the value that the system will have to them.

The intended audience of this document is the course professor and teaching assistants so that they can determine whether the project should be approved as proposed, approved with modifications, or not approved.

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# **1.0 Overview**

## **1.1. Purpose, Scope and Objectives**

This system will compile and analyze publicly available data from the SEC EDGAR database to present data that may otherwise only be compiled in a bloomberg terminal. Our software will be much less costly than competitors. The market for this product is underserved. Some retail investors are gamblers but others would like to find value in the market. We may not reach the breadth of the data provided by much more expensive systems, but we will give budding value investors a fighting chance. When someone new to investing hears the buzz around some ticker, they may make the mistake of projecting their value mindset onto market manipulators, we hope to pull people out of that trap. Our software will elucidate cashflows and future cash flow valuations while taking the going price multiples into account for a given sector. No amount of information will make the market more efficient, but perhaps our information will help the market to not be inefficient in the wrong direction.

§ Users will be anyone from professional investors to gamblers new to the market.

§ We hope to implement this product in a web browser.

§ Any computer that can run a web browser should be able to run this software. Scripts for processing data will run on the client side and could be slow, but it will be both free and thorough.

## **1.2. Project description**

Financial Report Analysis:

§ The user will submit a ticker symbol, the CIK number will be located by ticker and used to pull the relevant documents from the EDGAR database.

§ Our service will give a birds eye view of a corporation’s actions (using 8-K current reports) as well as the strength of their balance sheet, cash flows, and operations. We will figure the average price multiples for a given sector and use this to provide estimates of value given the company’s future cash flow valuation. EDGAR provides a way to view institutional and insider holdings of a security and this data will be passed on to users. It is outside of our scope to design an NLP system that can analyze corporate actions, but this is where the human investor will always outshine every algorithm ever written to analyze the market. With all things given to the investor on a platter, the user should be able to figure these things out.

§ Balance Sheet, Cash Flow, Statement of Operations, Corporate Actions, and Insider Holdings analysis.

o Balance Sheet, Cash flow, and Statement of Operations analysis will be be done using a program to request 10-K and 10-Q filigns from the EDGAR system, reformatting the XBRL into JSON, and presenting useful data and ratios to the user.

o Corporate Actions will be analyzed by requesting 8-K filings from the EDGAR database, extracting the relevant data from the XBRL and presenting a brief synopsis.

o Insider holdings will be analyzed by requesting SC 13X filings and other aggregate data from the EDGAR database.

o This data should be presented in a web browser.