CSC 431

EDGAR Terminal

Software Requirements Specification (SRS)

Team #20

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Version History

Version	Date	Author(s)	Change Comments

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131. System Requirements

131.1 Functional Requirements

< List all functional requirements in the following example format >

1.1.1 Scraping Files from SEC website

Title	File Acquisition
Description	Files will be pulled from the SEC website. Different kinds of files will be required for different parts of the service.
Priority	0
Precondition(s)	Resolve company trading symbol (stock ticker) into CIK number to submit relevant REST query to SEC database.
Basic Flow	User enters stock trading symbol, symbol is resolved into CIK number, subsequent queries to get a given number of reports and or corporate actions documents will use CIK number.
Postconditions(s)	Keep only relevant data, throw away data that overlaps between periods.
Use Case Diagram	<Link or number, if present>

1.1.2 Analysis

Title	Analysis
Description	When reports are pulled, users should be given some basic ratios and figures according to the reports.
Priority	2
Precondition(s)	File Acquisition
Basic Flow	Files are present and resolved into structured JSON that should ease efforts to view them. The data could be used to make a chart going back a specified number of years that shows Assets vs Liabilities, trends in cash flows, or earnings.
Postconditions(s)	User will get a bird's eye view of a company's finances similar to what they might get with a subscription to similar services.
Use Case Diagram	<Link or number, if present>

1.1.3 Insider Holdings

Title	Insider Holdings
Description	This feature will help users to understand the level of insider ownership, owners letting go of shares can be indicative of future moves down while insider acquisitions can hint at good things to come.
Priority	1
Precondition(s)	Resolve ticker symbol into CIK number, build list of insiders by scraping table on SEC website.

Basic Flow	Ticker symbol is resolved into CIK, “Insider Transactions” is selected. Each inside holder has their own CIK number, find the first document in their filings that is relevant to the company in question, scrape <sharesOwnedFollowingTransaction> from document XML, assign this number for the insider.
Postconditions(s)	Build a graph to help visualize the aggregate holdings of insiders. It could be interesting to note downtrends in ownership among insiders as it pertains to the company’s share price.
Use Case Diagram	<Link or number, if present>

1.1.4 Reactive Graphics

Title	Reactive Graphics
Description	With data on insider holdings and company financials, users should be given ways to visualize the data
Priority	3
Precondition(s)	Pulled all data, done the relevant analysis.
Basic Flow	Chart showing insider holdings next to stock price should help users decide if the insiders know something or not. Corporate actions overlaid on daily chart should help people understand the story behind a company’s stock price.
Postconditions(s)	Don’t do anything too fancy, overly simple graphics aren’t helpful just as extremely complex graphics aren’t.
Use Case Diagram	<Link or number, if present>

131.2 Non-Functional Requirements

< List all non-functional requirements in the following example format >

1.2.1 Usability

Title	Usability
Description	The website user interface shall be user-friendly and easy to use for any user ranging from professional investors to those new to market.
Priority	2
Applicable FR(s)	Analysis

1.2.2 Performance

Title	Performance
Description	The system shall efficiently compile requested data without significant delay.
Priority	1
Applicable FR(s)	File Acquisition

1.2.3 Reliability

Title	Reliability
Description	The system be able to handle traffic when particular stock is buzzing or when experiencing high demand.
Priority	2
Applicable FR(s)	File Acquisition

1.2.4 Correctness

Title	Correctness
Description	The system shall have access to reliable database and provide accurate and transparent information for user.
Priority	2
Applicable FR(s)	Insider Holdings

132. System Constraints

132.1 Tool Constraints

< List all tool constraints in the following example format >

2.1.1 Python IDE

Title	Python IDE for basic web development
Description	Backend will be in python, less time to design python frontend
Priority	3

132.2 Language Constraints

< List all language constraints in the following example format >

2.2.1 Python 3

Title	Python 3
Description	Web development and backend will be in Python 3
Priority	2

132.3 Platform Constraints

< List all platform constraints in the following example format >

2.3.1 Web Browser

Title	Web Browser
Description	There won't be a phone app or anything of the sort. Product will be web-based and must be compatible with all platforms (desktop, tablet, mobile device) that supports web browser.
Priority	2

132.4 Hardware Constraints

< List all hardware constraints in the following example format >

2.4.1 Computer Able to Run Web Browser

Title	Browser Capable
Description	This will be a web app, it shouldn't require too much, but the bare minimum will be to run a web browser. Will run on every standard device. No special hardware requirement will be needed.
Priority	1

132.5 Network Constraints

< List all network constraints in the following example format >

2.5.1 Basic Internet Connection

Title	Internet Connection
Description	User will need an internet connection to fetch files from the SEC database. Will only function while connected to internet, as it is web-based. The product will not be available offline.
Priority	0

132.6 Deployment Constraints

< List all deployment constraints in the following example format >

2.6.1 Self Contained

Title	Self Contained
Description	The app should be self contained enough that the user won't have to think about the code they're running.
Priority	2

132.7 Transition & Support Constraints

< List all transition & support constraints in the following example format >

2.7.1 Transitionary Requirements

Title	Transition Requirements
Description	Get files from SEC database, use XBRL to JSON for extracting values
Priority	0

132.8 Budget & Schedule Constraints

< List all budget & schedule constraints in the following example format >

2.8.1 Schedule

Title	Schedule
Description	Project must be fully completed no later than May 1 2021. First prototype will be available by mid-term presentation, which would be mid-March.
Priority	0

132.9 Miscellaneous Constraints

< List all miscellaneous constraints in the following example format >

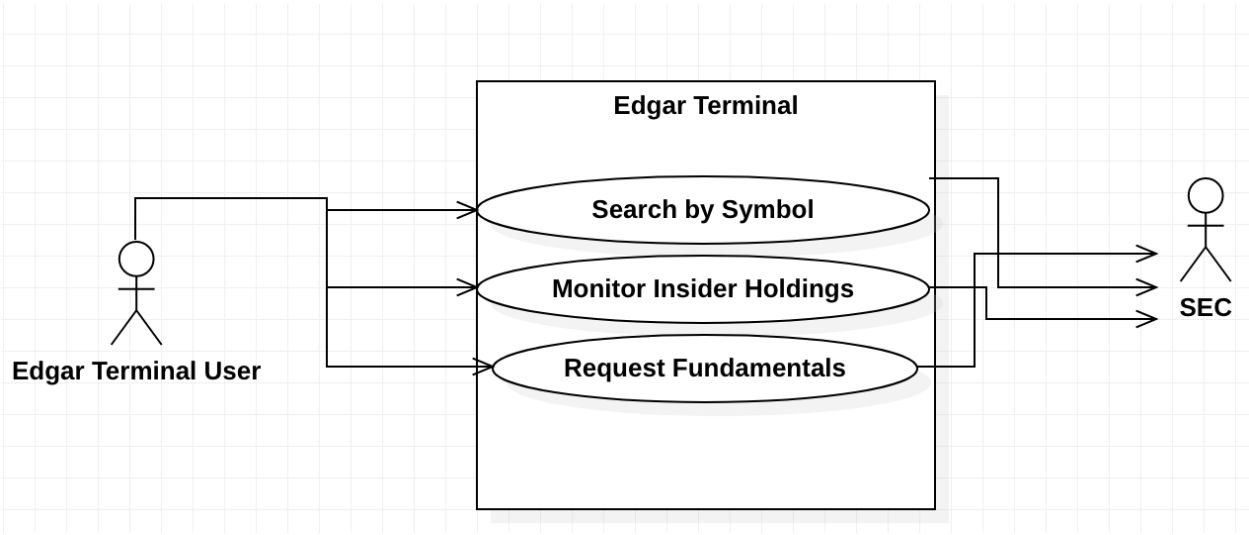
2.9.1 Requirement Title

Title	<Insert title>
Description	<A one or two sentence description>
Priority	<Priority from 0 (highest) – 5 (lowest)>

133. Requirements Modeling

< List all Use-case diagrams for the functional requirements in the following format>

3.1.1 Request Fundamentals, Monitor Insider Holdings, Search by Symbol



Evolutionary Requirements

133.2 Functional Requirements

< List all functional requirements in the following example format >

3.2.1 Requirement Title

Title	<Insert title>
Description	<A one or two sentence description>
Priority	<Priority from 0 (highest) – 5 (lowest)>
Precondition(s)	<What needs to happen before>
Postconditions(s)	<What happens as a result>
Use Case Diagram	<Link or number, if present>

133.3 Non-Functional Requirements

< List all non-functional requirements in the following example format >

3.3.1 Requirement Title

Title	<Insert title>
Description	<A one or two sentence description>
Priority	<Priority from 0 (highest) – 5 (lowest)>
Applicable FR(s)	<Which functional requirement(s) is this applicable to?>