

fatdividends.com.au

Software Requirements Specification

Version 0.4

20/09/2012

Prepared by:

Ben Shanks

cambridgespy@gmail.com

Revision History

Date	Version	Author	Change reference
20/09/2012	0.4	Ben Shanks	Initial release for quotation

fatdividends.com Requirements Specification v0.4

Reviewers

Date	Version	Reviewer
------	---------	----------

TABLE OF CONTENTS

1	Introduction	1
1.1	Project Scope	1
2	System Description	2
2.1	Project Perspective	2
2.2	User Roles and Characteristics	2
2.3	Design and Implementation Constraints	3
2.4	Assumptions and Dependencies	3
3	System Functionality.....	4
3.1	System Features	4
4	Interface Requirements	19
4.1	User Interface	19
4.2	Software Interfaces	Error! Bookmark not defined.
5	Appendix A: Glossary	20

1 INTRODUCTION

1.1 Project Scope

The scope of the project is to create phase one of a Web application to facilitate the automation of collecting and saving financial data for the Australian share market. Data is to be sourced where possible from freely available data sources to be calculated, presented to users of a new website (fatdividends.com.au).

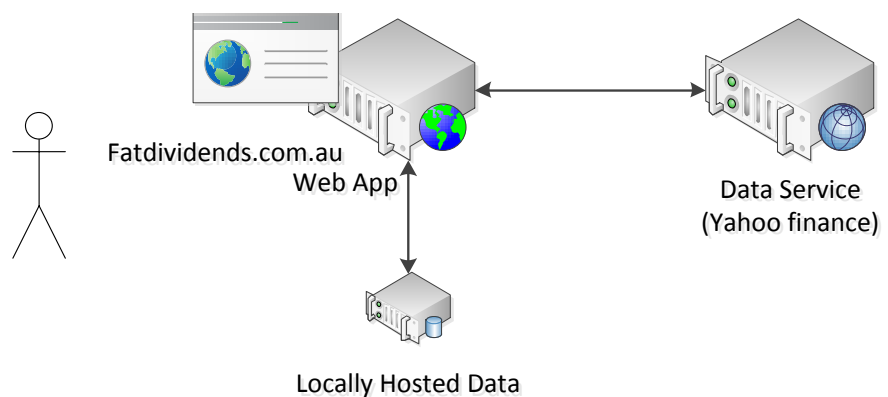
2 SYSTEM DESCRIPTION

2.1 Project Perspective

The project is phase one of a new web application and website project to automate the collection of data to present analysis based on calculations of data collected. The project will include the development of a website to present the data, including a blog and other content as well as collection of pages for each of the top 200 Australian listed companies.

The Web application will gather freely available market data and upon request of the user present the data when viewing selected pages within the website. The application is also required to store some of the collected data locally. Other data sources may be added in future phases to enhance the range of information that can be provided to the user.

An administration interface is also required to import other financial data from the administrator as well as manage content and design changes.



2.2 User Roles and Characteristics

The following user types will be made available for phase one:

Administrator:

Manage the content and provide updates to the site when required and publish a blog. The Administrator must be logged into the system to use these features.

Website user

A website user who uses the website features. No login is required from the user.

2.3 Design and Implementation Constraints

The Webapp must be implemented in such a way to use the following technologies:

- ASP.Net MVC or C#
- Hosted using AWS
- Wordpress (or similar) for content management and blog
- Google Analytics
- Google Adsense
- SEO friendly implementations and page names

This will allow for easy updates and management of the system.

2.4 Assumptions and Dependencies

It is assumed that the vast majority of data required can be obtained using free data services provided from yahoo and or Google. An example is:

<http://code.google.com/p/yahoo-finance-managed/>

<http://www.gummy-stuff.org/Yahoo-data.htm>

3 SYSTEM FUNCTIONALITY

3.1 System Features

Administration

#RQ01	Administration Login
#RQ02	Manage Blog
#RQ03	Manage Stocks
#RQ04	Stock Management Screen
#RQ05	Manage Earnings
#RQ06	Manage Dividends
#RQ07	Manage Files
#RQ08	Upload Data via CSV

Widgets

#RQ09	Upcoming Dividend Widget
#RQ10	Upcoming Earnings Widget
#RQ11	Search ASX Code
#RQ12	Market Summary

Website Pages

#RQ13	Home Page
#RQ14	Dividend Investing
#RQ15	Upcoming Dividend Calendar
#RQ16	Upcoming Earnings Calendar
#RQ17	Investment News
#RQ18	Stock Information
#RQ19	Dividend Details
#RQ20	Earnings Details
#RQ21	Stock Reports
#RQ22	Stock News? Review

Administration

#RQ01	Administration Login
Goal	Allow the Administrator to login the system.
Detail	A URL is to be made available to allow the administrator to log into the administration area of the system. The Administrator is also able to send a password reminder to the email account of the administrator
User Role	Administrator
Business Rules	1. Only 1 Administrator account is available
Notes	The Administrator email address will be supplied during development. Admin URL example: fatdividends.com.au/admin

#RQ02	Manage Blog
Goal	Allow the Administrator to create and manage blog entries
Detail	From the administration menu the Administrator is able to select to manage the blog of the website. The Administrator is able to the following: <ul style="list-style-type: none">• Add new or update and remove existing posts• Tag blog entries with none, one or many stock codes• Manage and remove comments
User Role	Administrator
Business Rules	1. Only one blog is to be implemented in phase one of the project 2. Each blog has a title and a date (determined by original post-date) 3. If a blog post is tagged with a stock code, the blog title link is presented to the user on the selected stock information page
Notes	Would prefer something like Wordpress implemented to manage blog features

#RQ03	Manage Stocks
Goal	Allow the Administrator to manage the stocks within the system.
Detail	When the Administrator selects to manage stocks, the system present a list of stocks in a grid with the following fields, sorted by stock code alphabetically by default: <ul style="list-style-type: none">• Stock code• Name• Make inactive (has an icon)• Remove (has an icon)• Manage Earnings• Manage Dividends• Manage Files <p>The Administrator is able to use a filter search to refine the presented results to make it easier to manage.</p>

If the Administrator selects the stock code or name the user is presented with a stock management screen for the selected stock.

The administrator can select to Add a new stock. The system will present the stock management screen with no pre-populated data and allow the user to create a new stock.

User Role Administrator

Business Rules

1. If the administrator remove or makes a stock inactive, a warning message is presented to the user
2. An inactive stock is no longer presented to users on the website
3. Removed stocks are deleted from the system

Notes

#RQ04 Stock Management Screen

Goal Allow the administrator update individual stocks details.

Detail A form is presented to the Administrator and it is prefilled with existing data if the Administrator has selected an existing stock. The user must first enter a Stock Code, and the system will populate for following fields based on the stock code:

- Name (can be overridden)
- P/E
- EPS Estimate
- Current EPS
- Price to Book
- PEG
- Sector
- Market Capitilisation
- Net Profit After Tax
- Net Cashflow

Following fields are optional fields the Administrator is able to enter:

- Website
- Corporate Website
- Next Earnings Date

The user can select to save or to cancel the changes and will load the “Manage Stocks” screen.

User Role Administrator

Business Rules

1. If Name is left null when saved the system will populate based on data source
2. If the earnings date becomes a past date, it is replaced with N/A

Notes

Data Fields (Stock)

Field	Type	Req'd?	Length	Default	Comments
Stock Code	Text	Y			Eg cba.ax
Website	Text	O			Eg www.commbank.com.au
Corporate Website	Text	O			Eg investor.commbank.com.au
Name	Text	O		System	
Next Earnings Date	Date	O			Date Picker, cannot be a past date.

#RQ05 Manage Earnings

Goal Allow the administrator to manage a selected stocks earnings data.

Detail A Grid is presented to the Administrator sorted by year by default in descending order with the following fields:

- Year
- Order Number
- Date Reported
- Period
- NPAT
- Margin
- Cash Flow
- EPS
- DPS
- Share Price

The user is able to remove one or more selected rows.

The user is able to add a new row. A popup window will be presented with a form allowing the user to fill in the dividend details

The user is able to update an existing row. A popup window will be presented with a form with the existing data pre-populated.

User Role Administrator

Business Rules 1. The order number determines how the order in which the earnings data is presented in the grid on the stock information page.

Notes

Data Fields (Earnings)

Field	Type	Req'd?	Length	Default	Comments
-------	------	--------	--------	---------	----------

Year	Number	Y		Determines which grid the earnings are presented in.
Order number	Number	O		Determines the order it is presented to the user in the grid for each year.
Date Reported	Date	Y		
Period	Text	Y		
NPAT	Number	O		
Margin	Number	O		
Cash Flow	Number	O		
EPS	Money	O		
DPS	Money	O		
Share Price	Money	N/A	System	= Share Price on Date Reported

#RQ06	Manage Dividends
Goal	Allow the Administrator to manage a selected stocks dividend data.
Detail	<p>A Grid is presented to the Administrator sorted by Date Declared by default in descending order with the following fields:</p> <ul style="list-style-type: none"> • Date Declared • Ex-Dividend Date • Record Date • Pay Date • Amount • Franked % • Gross Yield <p>The user is able to remove one or more selected rows.</p> <p>The user is able to add a new row. A popup window will be presented with a form allowing the user to fill in the dividend details</p> <p>The user is able to update an existing row. A popup window will be presented with a form with the existing data pre-populated.</p> <p>Gross yield is determined using the following formula: $\text{Amount} + ((\text{Amount} * \text{Franked \%}) * 3/7)$</p>
User Role	Administrator
Business Rules	1. Grossed Yield is calculated using the formula and cannot be manually entered
Notes	

Data Fields (Dividends)

Field	Type	Req'd?	Length	Default	Comments
Date Declared	Number	Y			
Ex-Dividend Date	Number	Y			
Record Date	Date	Y			
Pay Date	Date	Y			
Amount	Number	Y			
Franked Percentage	Number	O			
Gross Yield	Number	N/A			Calculated, presented as a % to 2 decimal places. EG 2.47%

#RQ07

Manage Files

Goal	Allow the Administrator to manage selected stocks available files for download.
Detail	<p>The Administrator is presented with grid of current files for the selected stock sorted by year in descending order then by label type presenting the following fields:</p> <ul style="list-style-type: none"> • Year • Label • Name • Date • Order <p>The user can select remove one or more files by selecting the files and selecting remove.</p> <p>The user can select to add one or more files. When adding one or more files the user selects the file using a file picker. The user can only enter one year and select one label and one date for the selected files.</p> <p>The user can select to update one of the entries of the grid. The user can then enter in an "Order" number. This number determines the priority it is presented within the selected group.</p>
User Role	Administrator
Business Rules	<ol style="list-style-type: none"> 1. If the administrator removes one or more files, a warning message is presented to the user 2. A removed stocks are deleted from the system 3. The user can add up to 10 files at once

Data Fields (Entity)

Field	Type	Req'd?	Length	Default	Comments
Year	Number	Y			
Label	Drop Down	Y			Options: (order presented) <ul style="list-style-type: none"> • First Half (4) • Full Year (1) • First Quarter (6) • Second Quarter (5) • Third Quarter (3) • Fourth Quarter (2)
Date	Date	Y			
Order	Number	O			

#RQ08 Upload Data via CSV

Goal Allow the user to update earnings or dividend data within the system by CSV upload.

Detail The Administrator is able to select to upload data from the administration menu. The user must select if it is "Earnings", "Dividend Data" or "New Stocks" when uploading the file. The system will present a file picker window to the user so they can select a CSV file from their computer.

The system checks that the CSV file has the correct headings for each column. If the columns are not as required an error message is presented to the user informing them of the error.

If the user selects Earnings, the file must have the following column headings

- Stock Code
- Year
- Order Number
- Date Reported
- Period
- NPAT
- Margin
- Cash Flow
- EPS
- DPS

- Share Price

If the Administrator selects Dividends, the file must have the following column headings

- Stock Code
- Date Declared
- Ex-Dividend Date
- Record Date
- Pay Date
- Amount
- Franked %

If the user selects New Stocks, the file must have the following column headings

- Stock Code

If the data is saved correctly then it is available to be viewed within the earnings or dividend management screens.

If an error occurs importing a row, the system will skip the row and continue import the next row. At the end of the import any rows that were not imported are to be presented to the user giving them the line number of the import that failed.

User Role Administrator

Business Rules 1. When earnings, dividends or stocks are imported, all calculations or data is sourced where required when saving the import data.

Notes

Widgets

#RQ09

Upcoming Dividend Widget

Goal

Allow the user to see a list of upcoming dividends and stock details.

Detail

The upcoming dividend widget will present a list of dividends available to shareholders. The widget will present the following information in the grid, sorted by ex-dividend ascending order date, then by stock code in alphabetical order.

- Stock code
- Ex-dividend date
- Amount
- Franking %
- Gross Yield

All stocks within the system that have a dividend with an ex-dividend date of tomorrow, tomorrow +1 days, or tomorrow + 2 days will be presented.

The stock code is a hyperlink to the selected Stock Information page.

User Role	Website User
Business Rules	1. If less than 10 entries are presented then the system will populate the grid with the next 10 entries of known ex-dividend details.
Notes	

#RQ10	Upcoming Earnings Widget
Goal	Allow the user to see a list of upcoming dividends and stock details.
Detail	<p>The upcoming earnings widget will present a list of stocks that are expected to report earnings. The widget will present the following information in the grid, sorted by earnings date, then by stock code in alphabetical order.</p> <ul style="list-style-type: none"> • Stock code • Earnings Release <p>All stocks within the system that have an Earnings release date of tomorrow, tomorrow +1 days, or tomorrow + 2 days will be presented.</p> <p>The stock code is a hyperlink to the Stock Information page.</p>
User Role	Website user
Business Rules	1. If less than 10 entries are presented then the system will populate the grid with the next 10 entries of known Earnings release dates.
Notes	

#RQ11	Search ASX Code
Goal	Allow the user to enter a stock code and open the stocks information page.
Detail	The user is able to enter a stock code into a text box. If the stock code matches to a stock within the system the stocks information page is presented to the user. If not match is found the user is presented popup window that informs them the stock information requested was not found, please try a different stock code.
User Role	Website user
Business Rules	1. Only one stock code can be entered at a time
Notes	

#RQ12	Market Summary
Goal	Allow the user to see a delayed intraday market graph.
Detail	The user is able to view an intra-day market graph where the data is feed by a connected data source (yahoo finance). The graph will show the ASX All Ordinaries index.

	The graph will reset each day at 8am and present the graph from 10am to 4pm daily.
	On weekends or public holidays where no data is presented, it will present the previous day's trading data.
User Role	Website user
Business Rules	1. The user is unable to change what is presented in the graph
Notes	

Website Pages

#RQ13	Home Page
URL	www.fatdividends.com.au
Detail	<p>The Content on the homepage needs to be able to be managed. The Administrator needs to manage and or be able to paste HTML to update the content (into a raw html file?)</p> <p>The following widgets are presented to the user.</p> <ul style="list-style-type: none"> • Market Summary • ASX Search • Upcoming Dividends • Upcoming Reporting Dates <p>Recent blog posts and a twitter feed from fatdividends.com.au's twitter account are also presented to the user.</p>
User Role	Website user
Business Rules	1. The user is unable to change what is presented in the graph
Notes	Ideally would like to be able to manage the content using Wordpress or something similar.

#RQ14	Dividend Investing
URL	www.fatdividends.com.au/dividend-investing
Detail	<p>The Dividend Investing page is the blog of the website. Each blog entry has a title and a date. Up to 3 blog posts are presented to the user on a page at once. The user has able to select to view an older posts link at the bottom of the page; this will load the next 3 blog posts. If the user is not viewing the latest three blog posts the user can select to recent posts.</p> <p>The user is able to search the blog for key words. The user is also able to view older blogs by using the blog archive.</p>

The following widgets are presented to the user.

- Market Summary
- ASX Search
- Upcoming Dividends
- Upcoming Reporting Dates

The user is able to comment on a blog post or on a comment

User Role Website user

Business Rules

1. To comment, a user must register
2. Blog comments are able to be removed by the administrator
3. The system will display administrators comments

Notes

#RQ15 Upcoming Dividend Calendar

URL www.fatdividends.com.au/upcoming-dividends

Detail The Dividend Calendar presents a small area of content to the user and a grid of all known future dividends sorted by the ex-dividend date then by stock code in alphabetical order.

- Code
- Company Name
- Amount
- Franking %
- Ex-Date
- Pay Date
- Gross Yield

The user is able to select a line from the grid and will open the stock information page of the selected stock.

The following widgets are presented to the user.

- Market Summary
- ASX Search
- Upcoming Reporting Dates

User Role Website user

Business Rules

Notes

#RQ16	Upcoming Earnings Calendar
URL	www.fatdividends.com.au/upcoming-earnings
Detail	<p>The Earnings Calendar presents a small area of content to the user and a grid of all known future reporting dates sorted by the expected reporting date in ascending order then by stock code in alphabetical order.</p> <ul style="list-style-type: none"> • Code • Company Name • Reporting Date <p>The user is able to select a line from the grid and will open the stock information page of the selected stock.</p> <p>The following widgets are presented to the user.</p> <ul style="list-style-type: none"> • Market Summary • ASX Search • Upcoming Dividend Dates
User Role	Website user
Business Rules	
Notes	

#RQ17	Investment News
URL	www.fatdividends.com.au/Investment-news
Detail	The page will present a news items from a selection of RSS sources.
User Role	Website user
Business Rules	
Notes	RSS feeds will be provided during development.

#RQ18	Stock Information
URL	www.fatdividends.com.au/<stock code>
Detail	<p>Stock navigation submenu allows the user to select to view the following pages for the selected stock</p> <ul style="list-style-type: none"> • Information (Selected) • Dividends • Earnings • Reports

The name of the company is presented at the top of the page as a heading. A chart is

presented to the user, by default is shows the share price over the past 12 months. The user can select to view the chart over the following time frames

- Current day
- 1 week
- 1 Month
- 3 Months
- 1 Year
- 3 Years
- 5 Years

Detailed stock information is presented in a table as shown in the wireframe. This data is sourced from the data source and Code and Gross Yield are determined by the system. Gross Yield is determined by the dividends paid in the last 12 months using the Gross Yield formula.

A table of related companies is presented to the user which lists companies in the same sector as the selected stock. The user is able to select a stock from the table and will open the stock information page for the selected stock.

User Role Website user

Business Rules 1. Corporate Website and Investor Website links are only shown if the system has the information saved locally.

Notes

#RQ19

Dividend Details

URL www.fatdividends.com.au/<stock code>-dividend-details

Detail Stock navigation submenu allows the user to select to view the following pages for the selected stock

- Information
- Dividends (selected)
- Earnings
- Reports

The name of the company is presented at the top of the page as a heading. A chart is presented to the user that presents dividend information over the past 10 years. The data is determined by the dividend history of the selected stock.

Up to 10 bars are presented on a combined bar chart, one for each year of known dividends. If no dividend data exists for a year, the value is presented as 0. Each bar represents the dividends paid in the presented year, showing the total and individual payments for the year. If the dividend is fully franked, the franked amount is also presented to the user in a different colour on the combined bar chart to show the total grossed amount. See the example chart. (needs work)

CAGAR is the compound annual growth rate of dividends, and the last 5 years and last

10 years is calculated and presented to the user. If there is less than 5 years of data then 5 year CAGAR is not presented. If there is less than 10 years of data, the 10 year CAGAR is not presented.

The system will present in a table the dividend history paid in the selected year. The dividends pay date determines which year the data is presented in. Under each year, a summary is presented to the user that shows the total dividends for the selected year (Amount, Franked, Gross Yield). The system will present up to the last 10 years of data in the dividend history table.

User Role

Business Rules

Notes

#RQ20

Earnings Details

URL

www.fatdividends.com.au/<stock code>-earnings-details

Detail

Stock navigation submenu allows the user to select to view the following pages for the selected stock

- Information
- Dividends
- Earnings (selected)
- Reports

The name of the company is presented at the top of the page as a heading. A chart is presented to the user that presents earnings information over the past 10 years. The data is determined by the earnings history of the selected stock.

Up to 10 bars are presented on a combined bar chart, one for each year of earnings. If no dividend data exists for a year, the value is presented as 0. Each bar represents the dividends paid in the presented year, showing the total and individual payments for the year. The graph can present negative earnings for the stock for a given year

CAGAR is the compound annual growth rate of earnings for the year, and the last 5 years and last 10 years is calculated and presented to the user. If there is less than 5 years of data then 5 year CAGAR is not presented. If there is less than 10 years of data, the 10 year CAGAR is not presented.

Current Year EPS Estimates is determined by the data source.

The system will present up to tables of earnings history for the last 10 years. The system the saved earnings data with the most recent year presented at the top. If a presented year is reporting is complete, the values in the table are added together and a new top line is presented in the table with the Date Reported = "Full Year" and Period = "<Year>".

User Role Website user

Business Rules

Notes

#RQ21

Stock Reports

URL www.fatdividends.com.au/<stock code>-financial-reports

Detail Stock navigation submenu allows the user to select to view the following pages for the selected stock

- Information
- Dividends
- Earnings
- Reports (Selected)
- News

The name of the company is presented at the top of the page as a heading.

The system presents the existing files added to stock, sorted by year, group. If the user Clicks on the group name or plus button, it will expand to present the list of files uploaded in the system. The system will present a file type icon (PDF icon for PDF file or standard document icon if not pdf), file name, and the file size.

The user is able to open the file by selecting it. The user can hide the files by selecting the group again. More than one group can be expanded at a time.

User Role Website user

Business Rules

Notes

4 INTERFACE REQUIREMENTS

4.1 User Interface

4.1.1 Usability and Compliance

Given its wide proliferation all screens will be designed to best fit on a minimum recommended screen resolution of 1280 x 1024 pixels.

When designing the user interface the following key factors are taken into account:

- Provide a consistent, uncluttered interface that engages the user.
- Layout forms logically, provide keyboard shortcuts where appropriate.
- On large forms optimise for speed on data entry.
- On forms always visually indicate required fields and the type of data expected.
- Provide feedback to user actions (errors, validation issues, status messages) in a clean, consistent manner.

4.1.2 Supported Browsers

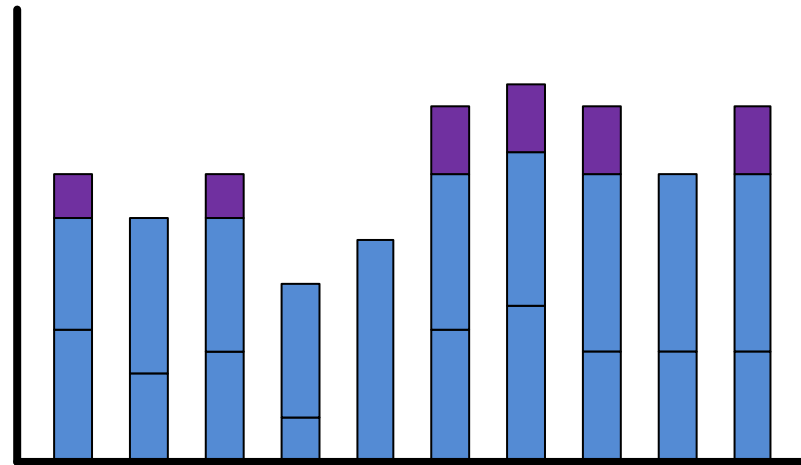
This application will specifically support the following browsers:

- ✓ Internet Explorer versions 8 and above
- ✓ Firefox 3 and 3.5
- ✓ Chrome 2
- ✓ Safari (Mac)

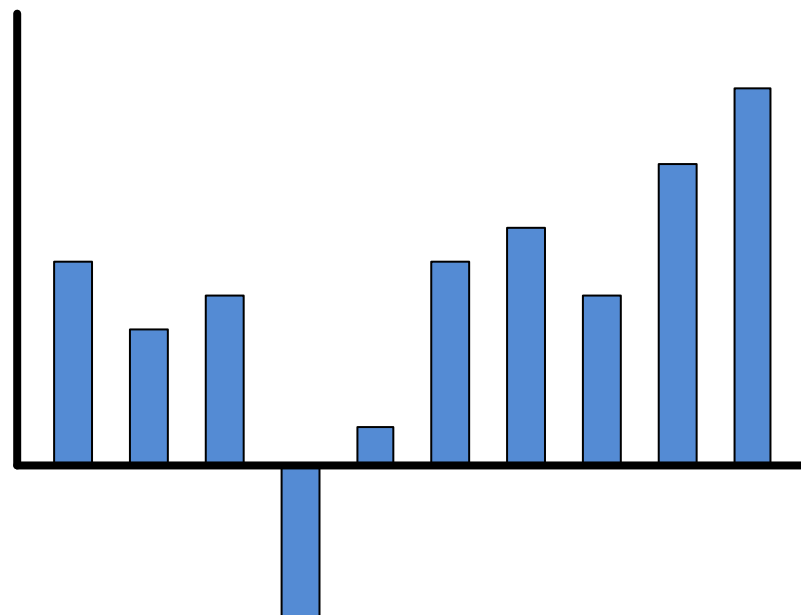
5 APPENDIX A: GLOSSARY

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

6 APPENDIX B: WIREFRAMES



Dividend Graph



Earnings Graph

