Dividend Forecaster – A tool to keep track of imprecise financial data

1 Abstract

1.1 Document Purpose:

This document describes the functional requirements of a application for Spot Trading to keep track of imprecise financial data from different analyst sources to forecast whether or not a dividend will be good or not.

1.3 Background/Motivation:

Dividends are payments made by a company to its shareholders which usually are a distribution of profits. Distribution to shareholders can be in cash or if the company has a dividend reinvestment plan, the amount can be paid by issuing more shares of the company. They are usually distributed quarterly throughout the year. There is a lot of value in knowing what the dividend will be in the future. What happens to the dividend effects the stock price. If the prediction is correct we can use it to invest accordingly or sell the report.

There are a number of dates to be aware of. The declaration date is the day where a company announces its intention to pay a dividend. On this day, a liability is created and the company now owes money to the stockholders. The ex-dividend date is especially important because anyone who purchases the stock from this date onwards will not be paid any of the dividends. Usually the ex-dividend date is 2 days prior to the record date. This is the date when dividends are paid to stockholders who hold the stock as of the record date. Finally, the dividend payment date is where the dividend check is sent the shareholders.

The reason for this application is because it is hard to keep track of imprecise data reports. There are many different analysts out there with their own recommendations. Analysts opinions also change over time. We need to develop a way to keep track of the different dividend forecasts. We will use a number of different types of data to forecast a dividend such as historical data, news articles or current events, other analysts data, and finance sites such as Bloomberg/Yahoo/Google. At first we will be tracking five companies. We will parse the data from these sources and update periodically and append it to existing data.

2 Technical Specifications:

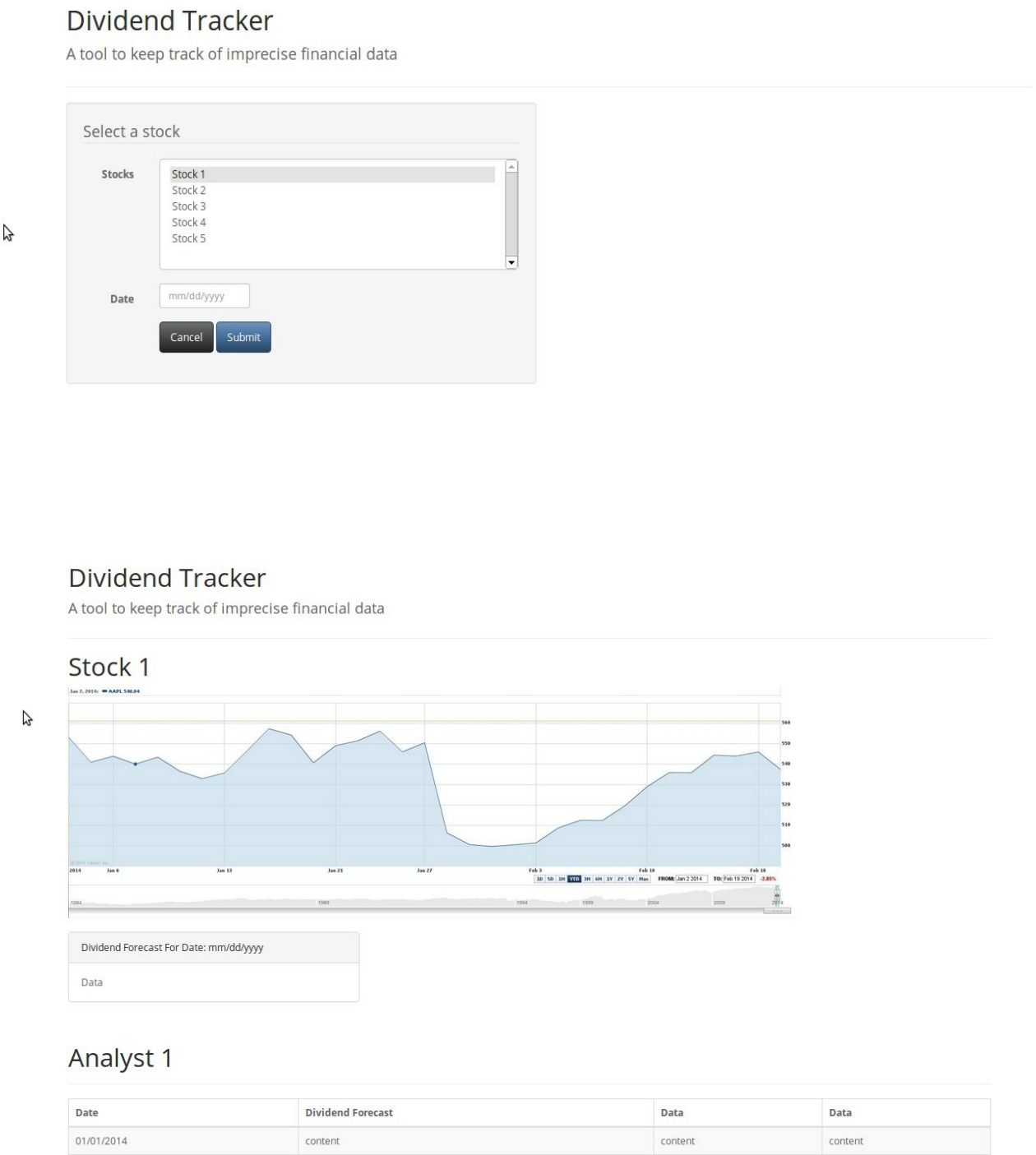
2.1 Platform: Web-based
2.2 Programming Languages: PHP, HTML, CSS, JQUERY, XML
2.3 SDK: LAMP
2.4 IDE: Eclipse
2.5 Interface: Google Chrome for displaying web application

3 Functional Specifications:

3.1 Affordances:
- 3.1.1 Users will input stock to view and date for dividend prediction
- 3.1.2 Data will be displayed from each analyst for a stock
- 3.1.3 The application may show a time line for an analyst
- 3.1.4 User may manually add data

3.2 Features:
- 3.2.1 Application will dynamically gather data and append to existing data for analyst
- 3.2.2 User will be able to add data and append it to existing data
- 3.2.3 Application will output XML file and stored locally.
- 3.2.4 User will be able to modify or remove existing data
- 3.2.5 Application will be able to predict dividend on a date provided by user.

3.3 Prospective Look/Mockup:



Analyst 1

Date	Dividend Forecast	Data	Data
01/01/2014	content	content	content
02/01/2014	content	content	content
03/01/2014	content	content	content
04/01/2014	content	content	content

Analyst 2

Date	Dividend Forecast	Data	Data
01/01/2014	content	content	content
02/01/2014	content	content	content
03/01/2014	content	content	content
04/01/2014	content	content	content

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4 Timeline:

- Week1 – Screenshots of mock up
- Week2 – Start of sprint
- Week3 –
- Week4 –
- Week5 –

5 Future Enhancement:

- Incorporate the "ranking" methodology into a "best" forecast for the dividend and continuously offer that under the analyst name of 'BestDividendForecaster'. Consider different ways to model uncertainty: qualitatively such as: n/a, good, bad; mean and standard deviation, over/under, etc.

- Use Bayesian inference to adjust the ranking of the analysts who are currently forecasting dividend of stock 'A', each time one of that same analyst's ***other*** forecasts of different stocks become known with certainty.