Disruptive_FA

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TABLE OF CONTENTS

High Level Overview

Problem: Evaluating a company and managing a portfolio has been an opaque task of the financial industry. Analytical research has been typically characterized as tedious and confusing.

Solution: Our final project will be a financial advisory Django backed website that takes a stock ticker and returns a recommendation of buy, hold, or sell based on company and comparable company valuations.

Data Gathering/Analysis

Collects data from user input and scrapes data from finance websites

Use data to generate financial models and give actionable information to users

User Interface

Upon completion of a brief survey, users will be able to search for personalized financial suggestions

1

Data Gathering Process

Data Pulling

Data Pulling

Period Ending	9/24/2016	9/26/2015	9/27/2014	9/28/2013
Total Revenue	$215,639,000	$233,715,000	$182,795,000	$170,910,000
Cost of Revenue	$131,736,000	$140,089,000	$112,258,000	$160,606,000
Gross Profit	$84,263,000	$93,626,000	$70,537,000	$64,304,000

```
<td>$215,639,000</td>
<td>$233,715,000</td>
<td>$182,795,000</td>
<td>$170,910,000</td>

<td>$131,376,000</td>
<td>$140,089,000</td>
<td>$112,258,000</td>
<td>$160,606,000</td>
```

Stock financials will be pulled from html code using Python and BeautifulSoup from websites such as:

http://www.nasdaq.com/symbol/aapl/financials?query=income-statement

A sample of the formatted data is shown above. To the left is an abbreviated version of the data in html code

2

Data Analysis Algorithms

DCF Calculation
Creating Tags for Similar Companies -> Comparables

Calculating a DCF

- Equation itself is formulaic
- Most of the data will be from data pulling NASDAQ website

- Two changeable variables:
  1. Forecasting revenue growth
  2. Risk Tolerance

Algorithm will return price per share of stocks for every year in the future

Comparables

- How we plan to pull companies
  1. Key words are industries
  2. Market Size/ other financial metrics
  3. Additional indicators

- Why
  1. Provides industry growth perspective relative to company
  2. Provide more support for recommendation

Finding Industry

```
<script>
Var SymbolType = “USEquity”;
Var StockIndustry = “Technology”;
</script>
```

Finding Market Share

```
<td align=“right” nowrap>$ 640,822,614,080 </td>
```

3

Final Product and GUI

Django Website
Additional Features

Final Product

Our final project will be a financial advisory Django backed website

User Input

Self report risk aversion level through a simple survey

Query individual stock symbols for tailored financial analysis

Product Output

Formatted webpage of financial analysis

Buy/Hold/Sell rating for stock and list of comparable stocks with buy rating

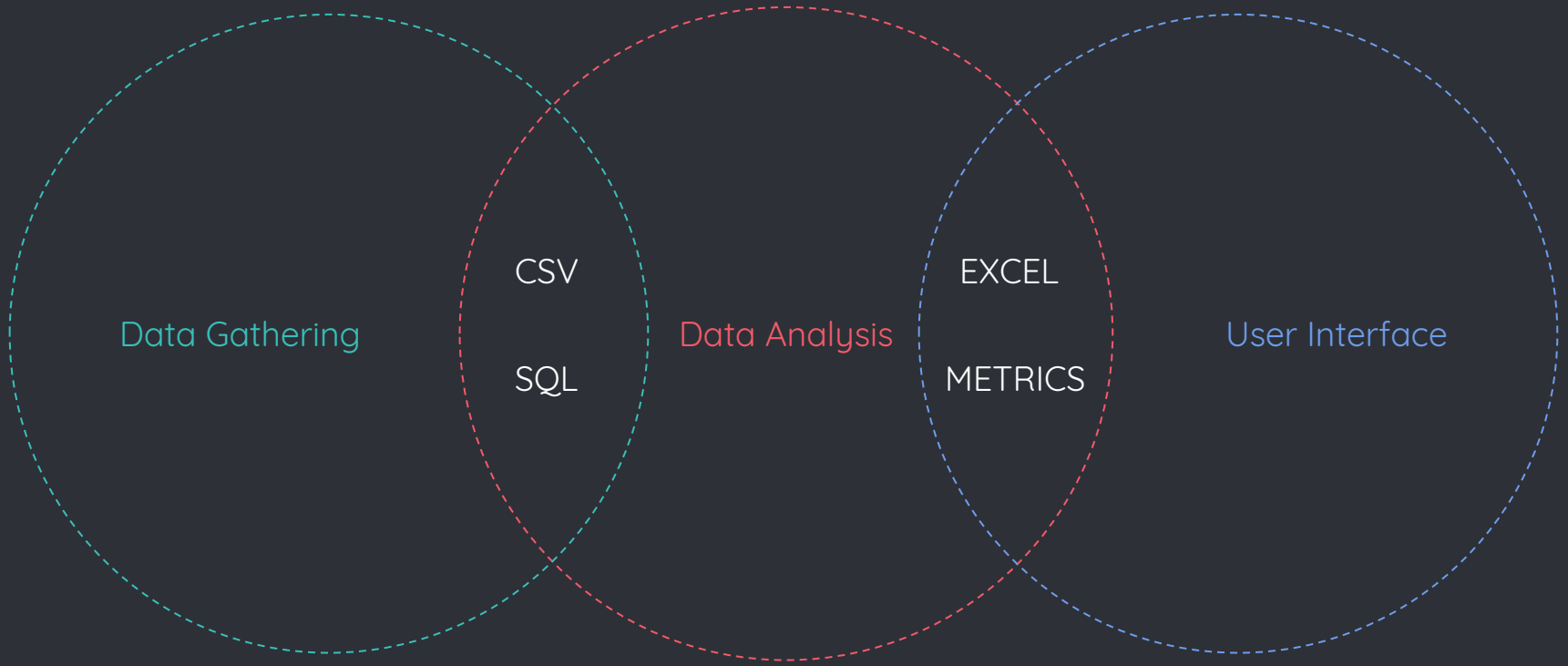
Downloadable Excel spreadsheet breakdown of calculations

Potential features include user information storage, asset portfolio generation, and additional graphic analysis

Timeline

- Week 3: Project Proposal
- Week 4: Project Presentation, Django & GUI Research
- Week 5: Data Pulling Framework, Django/GUI experimentation
- Week 6: Data Pulling Framework, Data Analysis/Representation, Build GUI
- Week 7: Data Analysis/Representation, Finalize GUI
- Week 8: Finish Programming, Begin Debugging
- Week 9: Final debugging, Finalize product
- Week 10: Final Project Presentation

Conclusion


Data Gathering
CSV
SQL
Data Analysis
EXCEL
METRICS
User Interface

Questions?