SENG 3011 Spec

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Context

Datasets involved

Finance

Company
1. Financial market data

2. News data

News

3. Social Network data

Social Networks
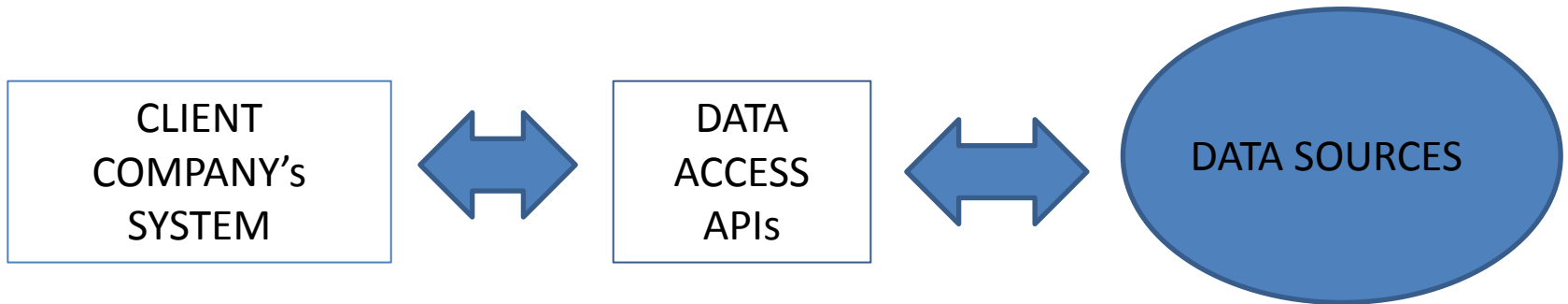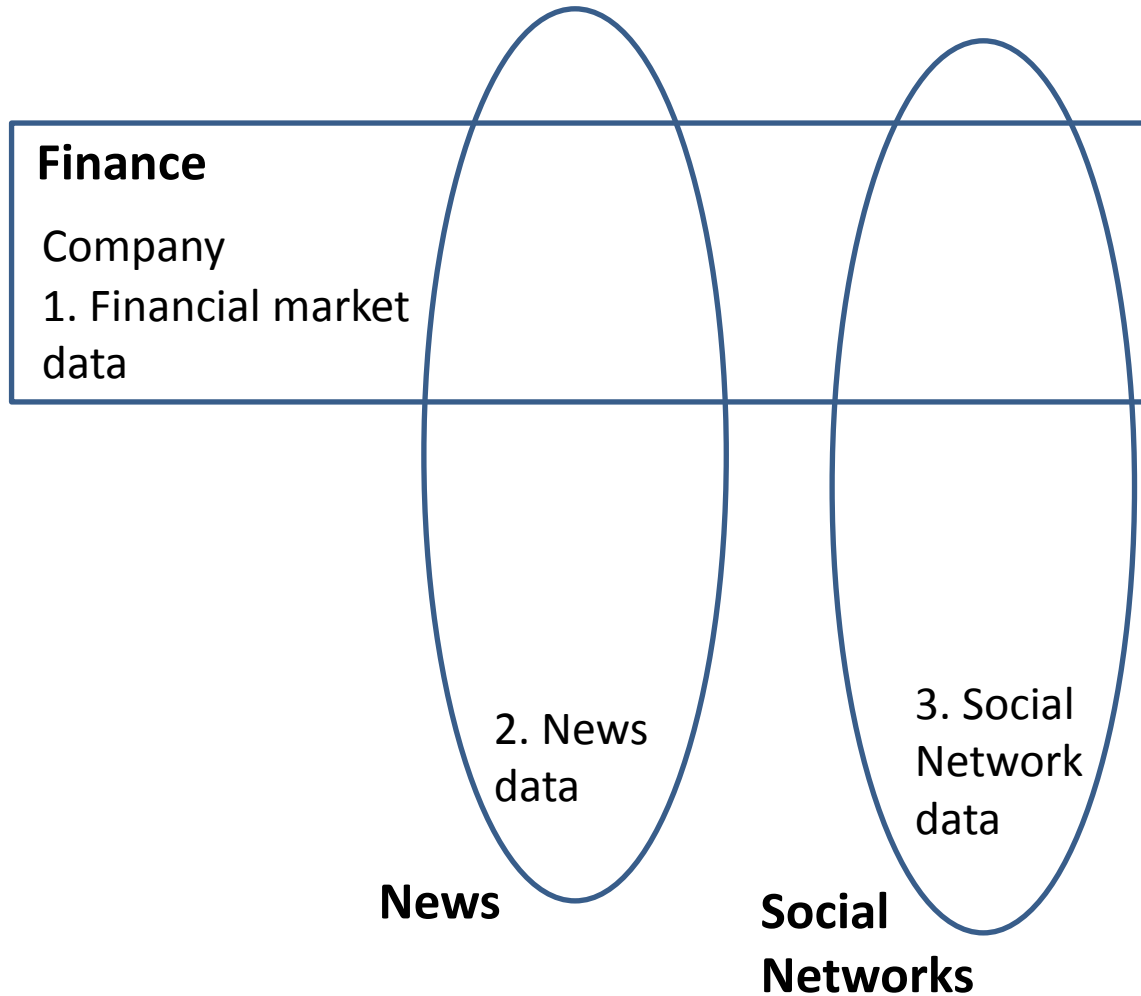
1. Company trading data

- Trading data is a source of knowledge about
  - Company's performance
  - Trends and patterns
  - Impact of news
- Examples of commercial data providers
  - Real-time
    - Thomson Reuters
    - Bloomberg
    - Alpha Vintage
  - Each provider can maintain multiple *datasets*
- Recent years
  - Rise of social networks
  - Open data initiative
  - More data available free

2. News data

- Guardian News
  - Free access
  - Available via Guardian Open Platform
  - Can run search queries
  - Several endpoints are available to retrieve different items: Content, Tags, Sections, Editions, Single item
  - Can filter by date
  - News items are provided as URLs users can access for further detail through "Single item" end point.

- Other
  - Students are free to use other news sources
  - Must be good quality and contain company-related/brand-reated information

3. Social Media Data

- Facebook API
  - Provide access to content
  - Can query pages related to brands, companies etc

- Good source to identify public opinions and responses

- Other
  - Students are free to use other social media data sources
  - Must be good quality and contain company-related/brand-related information

Project scope

- The project will be a simplification of impact analysis of news or social media campaigns to stock market
  - Focus on 1 company or brand
  - Focus on competitive companies/brands within one region
- Will be using financial data provided by Alpha Vintage API
- As a start, each team will need to develop one of these 3 APIs
  - API1: Company Returns
  - API2: News
  - API3: Social Network Statistics
- Week 5: a new spec will be given (Impact analysis platform)

Schedule

- Project organised in 4 sprints
  - Week 5: first working API
  - Week 7: improved API
  - Week 10: public demo of platform
  - Week 12: final demo of platform
- Managing requirements
  - No complete spec given
  - Ambiguities must be resolved with customer
  - Ability to innovate / improve

API1: Company Returns

- Uses stock prices

- Purpose
  - Helps determine how an event affected stock prices
  - Impact: neutral, positive or negative

- Characteristics
  - Difficult to understand
  - Easy to do

API2: News

- Uses news data

- Purpose
  - Helps determining a subset of news of interest
  - Query based on topic codes and company codes

- Characteristics
  - Easy to understand
  - Difficult to do

API3: Social Network Data

- Uses Facebook API
- Purpose
  - Helps finding out current trends for company or brand
  - Identify public engagement
  - Query for statistics
- Characteristics
  - Difficult to understand scope
  - Easy to do

Actions

- Teams should be formed
  - 4-5 members like before
  - "Teamless" students should let me know
- Each team
  - Study specs on Web site
  - Email 1st and second choice API to Madhushi (k.bandara@unsw.edu.au)
  - Deadline: Friday Week 2