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| CAB432 Cloud Computing – Semester 2 2019 |
| Assignment 1 Proposal |
| John Santias N9983244 |

# Introduction

NewsTube aims to provide users real time news information and videos that are related to it. Utilising the News API, YouTube data API and TextRazor, users can search for articles on a topic or source of their choosing. On selection of an article, they are presented with the content and an option to view an analysis on the text. Videos related to the topic will also be shown on the page.

### News API

<https://newsapi.org/>

The News API returns JSON metadata for news headlines and articles from all over the web. It has over 30,000 news sources and blogs.

NewsTube uses NewsAPI to obtain a list of articles related to the topic or source chosen by the user.

### YouTube Data API

<https://developers.google.com/youtube/v3/>

The YouTube data API is used to search and display YouTube videos.

NewsTube uses YouTube Data API to search videos that are related to the article’s topic.

## TextRazor API

<https://www.textrazor.com>

The TextRazor API extracts meaning from given content and understand the who, what, why and how. It runs deep analysis on the content to extract relations, typed dependencies between words and synonyms.

NewsTube uses TextRazor to analyse the article’s content to help users get a better understanding of the story.

# Use Cases

## Use Case A

***As a news reader, I want to find YouTube videos related to a news headline so I can visualise the topic and its problems.***

User selects an article, web app returns a the article’s content, related videos and optional analysis on the content.

## Use Case B

***As a news reader, I want to be able to view an analysis on the article content so I can get a better understanding the who, what why and how in the story.***

User selects an analysis button (words, phrases, relations, entities, meaning) and data will be displayed underneath the content

# Technical Breakdown

NewsTube will be designed to keep client-side processing to a minimum, this is to ensure all heavy processing is completed on the server side, with responses being optimised and filtered before being sent back to the client.

The first stage will involve processing the news articles and render them on the client side. The second stage will involve searching YouTube related to the news topic and displaying them on the page. The third stage will involve analysing the news content and displaying the data.

## Server side

All API calls are processed on the server side using the GET request to get data in JSON format. POST request will be used to send text to TextRazor for analysis.

All of the data obtained from the API will be mashed together using Javascript and will create new html tags to be sent to the client.