Functional Requirements Document

NEWS TRACKER APPLICATION

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Introduction

News tracking often never comes in handy as we have to access Google, and search for the relevant topics. Eventually some of them are fake and not the exact kind of news we look for. Tracking the news hence will help people to avoid boring, fake and helps in finding the desired news.

Abstract

The amount of data has grown exponentially with the increasing networks and information passing around through internet. The concern ultimately, is the selection and identification of extracting the knowledge of interest for different kinds of people. In the current models, the LDA (latent Dirichlet allocation) technique is used to extract topics from news texts. The main focus of this application is to connect news articles from all around the world and deliver it to user as fast as possible in best visualize way.

Idea

Clustering of the various messages, probable news with the format or structure can be used to find the topic of relevance or interest by the people who need to view the news based on it. The improvement of the common agglomerative hierarchical clustering algorithm based on average-link method, which is used to implement the retrospective topic detection and the online topic detection of news stories of the stocks is implemented already as per the submitted paper.

System Analysis

The Financial Benefit that can be obtained from this model is nothing but the increased and optimized reach of the news and related information's which can save up to 70% efficiency compared with the other apps and also this can lead to the conservation of time of every people using.

 This can bring about a marginal profit of more than the average news apps with all these enhanced algorithms and the clustering coming into the existence. Using every choice, selection and interest of the user as the main topics of consideration for the clustering this can be a major turn over in every news information application industry.

Proposed System

The solution is ultimately tracking news by using stochastic models are also in use due to information occurring in fragments. These are formed by the story lines tracking in news channels and in documents. Using the Kullback– Leibler divergence, we can:

1) Identifying the same topics

2) Clustering the similar nodes

3) Topic selection

 4) Topic Detection

Real time updates can be obtained by everyone at anytime and anywhere in the area of interest without any hassle
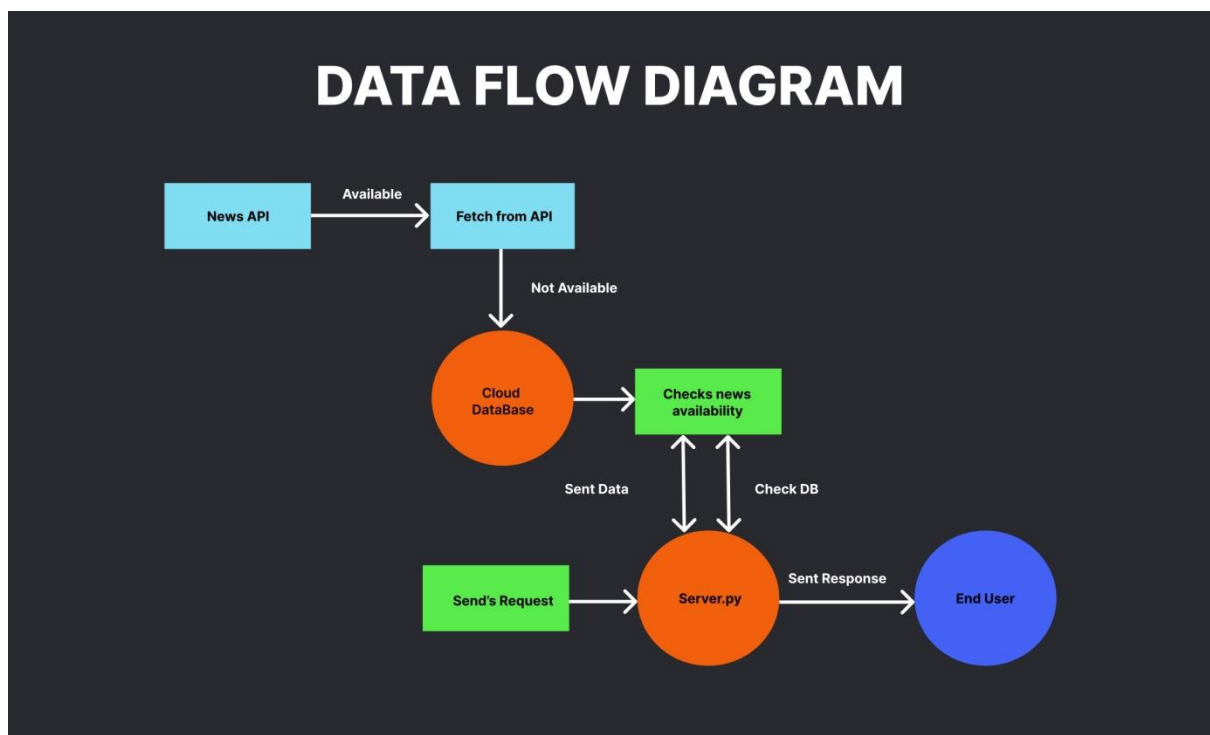
Requirements Specification

The user is requested to enter their topics of interest based on which the generation of news is done. In the output obtained, the user must choose a brief or detailed report as per need and time constraint, images/ video sources as required and can have the options of sharing the news or exporting it to other applications.

Hardware Requirements

1. Laptop or PC
2. I3 processor system or higher
3. 8 GB RAM or higher
4. 100 GB ROM or higher
5. Processor: Intel i5 9th Gen

Software Requirements

1. Anaconda Prompt
2. Visual studio Code
3. Flask
4. Operating System(win 7+/ Linux/MaxOs)

IDE's, Tools and Techniques used

- Python
- Flask
- LDA (latent Dirichlet allocation)
- K- Means Clustering
- Gibbs Sampling

Purpose and Scope

In this project, the use of the K-Means clustering Algorithm can make the project a highlighted one for the main use of sorting the topics from the news text and sometimes to identify the main clauses from the text to make the concern of the customers perfected with all the necessities and selection of the news that is only need to the time of the search.

With the clustering of various messages the news with certain format or structure is used for finding the news related to the topics or interest of the people with the consideration of the opinions of the people sharing similar interest by analysing the news circulation in twitter.
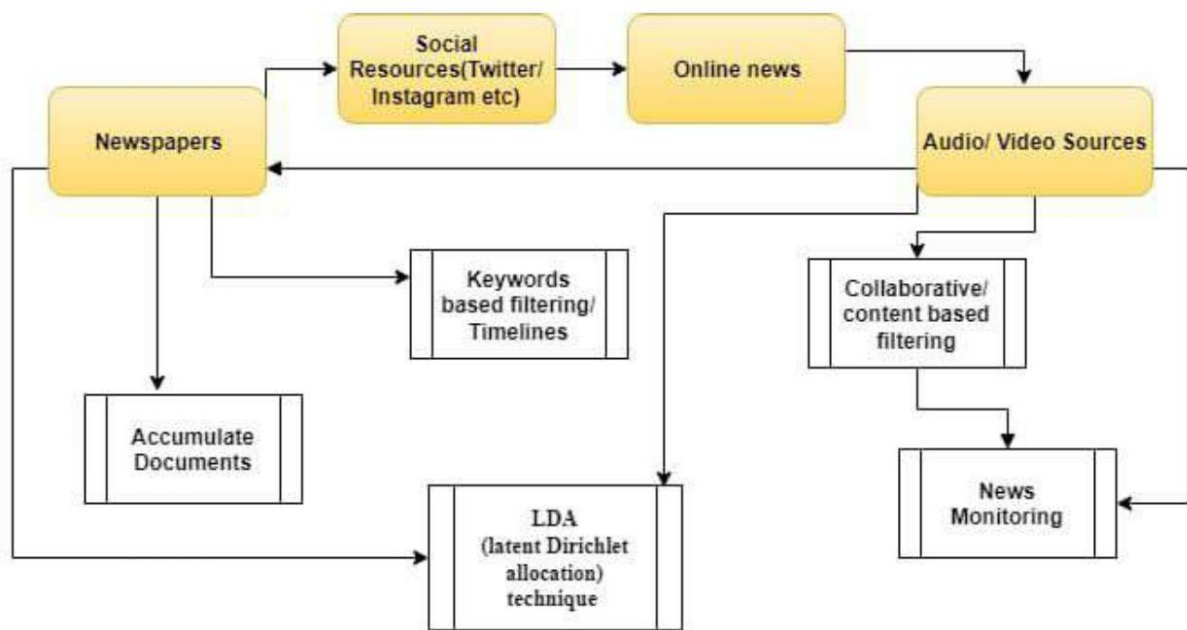
Breaking news being posted is being categorized with groups, ranks and tacks enlisted. Without using the ML model the twitter messages are directly made into the intermediate value being called the timeline which is to be tackled for the optimized use and recovery respectively. Agglomerative Hierarchical Clustering Algorithm helps in the implementation of the retrospective topic detection and the online topic detection of news stories of the stocks implementation. With all the stochastic models usage in information fragments ultimate tracking of the news and the follow-up of the channels is well monitored

System Features

1. On boarding page and introduction to app
2. Option list of various types of news available
3. Special news and exclusive news
4. Newest news first
5. Choice of detailed content or brief summary
6. Images/Video of news
7. Related topics and suggested news
8. Sharing to other applications
9. Reviews uploading
10. Rating of news/image/video content

System Design

The initial way in which the application works is by knowing about the features of the model. The user will know the existence of it by "Touch Point", part of the service do they interact with?

1. Word of mouth/ traditional media/ Social media
2. Newspapers
3. Priority based/Review based news first
4. Social Resources (Twitter/ instagram/ LinkedIn etc.)
5. Online news/Audio, Video sources

Then surfaces the interface of the model for the user with its rich UI/ UX that contains:

1. User Interface
2. On boarding screens
3. Topic list Interface

The user who wants to surf the latest news, hence finds the quest of resources available at one place in this application.

Application Flow Structure

The flow of this application is characterized by the systematic organization of web pages, page data, page actions, and mappings to business logic and the interconnection of these components. The web diagram tools provide us with a visual way to create and manage the flow of your web application.

The application flow contains various steps including discovery, topics of interest, on boarding and first use, and sharing.

Journey Steps Which step of the experience are you describing?	Discovery Discovery of news tracker application and motivation	Topics of interest Choose among latest news options available	Onboarding and First Use Track news instantly based on desired topics	Sharing Opinion sharing and news sharing via various applications
Actions What does the customer do? What information do they look for? What is their context?	Wants to know the latest sports/political/weather/daily news	Onboarding page and introduction to app · Option list of various types of news available · Special news and exclusive news	Newest news first · Choice of detailed content or brief summary · Images/Video of news · Related topics and suggested news	Sharing to other applications · Reviews uploading · Rating of news/image/video content
Needs and Pains What does the customer want to achieve or avoid? *Tip: Reduce ambiguity, e.g. by using the first person narrator.*	Smooth UI · Help in how to use the application	Most Recent news topics · Outdated/Old news should not be suggested · A good number of options to choose from	Priority based/Review based news first · Quick summary should be available · Should have related pictures in good quality · Suggest related news	Sharing message in common messaging platforms · Copy link/content to share externally
Touchpoint What part of the service do they interact with?	Word of mouth/ traditional media/ Social media	Newspapers · Social Resources(Twitter/ instagram/ Linkedin etc) · Online news/Audio, Video sources	User Interface · Onboarding screens · Topic list Interface	Share settings · Privacy Settings · Block topics
Customer Feeling What is the customer feeling? *Tip: Use the emoji app to express more emotions*	🤔	(emojis)	📝	📎
Backstage				
Opportunities What could we improve or introduce?	Increase/decrease a leading metric by improving UI	Increase/decrease a leading metric by iintroducing more	Increase/decrease a leading metric by improving Quality	Increase/decrease a leading metric by
Process ownership Who is in the lead on this?	Digital marketing Team	Development Team/ Research Team	Development Team	Marketing, Customer service

System Architecture in Business

The Financial Benefit that can be obtained from this model is nothing but the increased and optimized reach of the news and related information's which can save up to 70% efficiency compared with the other apps and also this can lead to the conservation of time of every people using. This can bring about a marginal profit of more than the average news apps with all these enhanced algorithms and the clustering coming into the existence. Using every choice, selection and interest of the user as the main topics of consideration for the clustering this can be a major turn over in every news information application industry.

Problem-Solution fit

1. CUSTOMER SEGMENT(S) CS	6. CUSTOMER CONSTRAINTS CC	5. AVAILABLE SOLUTIONS AS
From young people to old people	No network, Provide Download option	User can customize what content to read and can search contents
From working professional to jobless person	No well organized content	Chat bot that solves user queries
From poor to rich	No related and interesting and educating content	Providing quick access to favorite topic
From village people to city people	Click Bait(Topic and content are not related)	User friendly interface, avoiding misleading ads
Every one reads news now-a-days.	Annoying user interface	Prioritize news according to user interest and location.
	No customization option	

Define CS, fit into CC — *Explore AS, differentiate*

2. JOBS-TO-BE-DONE / PROBLEMS J&P	9. PROBLEM ROOT CAUSE RC	7. BEHAVIOUR BE
Reading unwanted and irrelevant and repeated content	No user customization. This leads to unorganized and uninterested news.	User searching news and wasting time on it
Bad user interface	No search bars leads frustration to search contents	User gets frustrated while using bad user interface
Searching related news	No service to complain(Chat bot solves queries.)	Misleading ads or topics wasting user time and confuse user
Misleading Ads and unorganized contents	No download option user may not have internet.	User need all types of content but needs their favorite content to be prioritized.
user unable to customize news content	Light mode may not good for eye.	User may feel stressed eye.
Using internet for previously watched content	User interface needs to be attractive and easy to use or it make user to lose interest on app	User may avoid notification if it is not related.
Forced notifications and ads	Provide notification which related to user wish	
Providing dark mode		

Focus on J&P, tap into — *Focus on J&P, tap into C*

3. TRIGGERS TR	10. YOUR SOLUTION SL	8. CHANNELS of BEHAVIOUR CH
People asking about latest news	Providing search bars and content customization tiles	8.1 ONLINE
When things goes viral	Enabling download options and save or pin post options	User can customize their news according to their interest.
When need report about weather, market, sports and etc	Providing Chat bot	User can interact with community feed and user can report any queries
	Providing Dark Mode	
4. EMOTIONS: BEFORE / AFTER EM	Providing like, comments, tag, polling options to develop to develop user interface further more.	8.2 OFFLINE
Feels waste of time to read irrelevant content	User can control their notification. They can select content which they need to notified.	User can save post and then read it for later
Feels frustrated about misleading news		User can download post and can share it to other people.
Feels getting lack of information from contents		

Identify strong TR & EM — *Extract online & offline CH of BE*

Conclusion

One of the factors in successful news app development is visualization of news and its feature with user. For the development of an android app material design is very useful and provides smooth experience with custom layout, views and animations. Hence, the application of news tracker is a very essential use of news access from anywhere anytime.

References

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