Software Requirements Specification

for

Content Curation Engine

Version 1.0 approved

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1. Requirement Specification

- Videos consist of a major source of knowledge in this vast ocean of information in the Internet.
- A major problem we come across while exploring this knowledge is the voluminous list of videos which we get whenever we do any search query in the search bar of a YouTube.
- It becomes impossible for a user to determine which video or a set of videos will be most appropriate to watch to resolve his query.
- Most of the time, after watching half of the length of a particular video, we come to know that this video is not able to serve our purpose. In turn, which causes wastage of time and resources.
- We want to develop a tool which will reduce this headache of a user and help him to suggest a playlist or a single video which will help him to get his relevant information quickly and effectively.

2. Functional Specification

- First activity will be a Login/Signup screen. There will be two Login options, one will be for the admin and the second one will be for the student.
- After the user has Logged in, next will be a screen having a search bar at the top. User can search a query in the search box which will result into a set of videos which have been ranked in accordance with our algorithm.
- These search results will be based on various parameters such as likes to dislikes ratio, sentiment analysis of comments, count of subscribers.
- Based on these parameters user will get results either in the form a single or the list of videos which will be most relevant to his search query.

3. External Interface Requirements

3.1 User Interfaces

We will be developing either a web portal or an Android application as a interface to our software. Hence it will be compatible with operating systems such as Mac OS, Windows or Linux. In case of web portal, User Interface will be developed in HTML, CSS, Bootstrap and in case of Android application, it will be basically a set of XML documents.

3.2 Hardware Interfaces

As we are simply developing a software which has a foundation of applying analytical techniques on videos of a YouTube, there always should be wireless network connection between our native application and a YouTube server.

3.3 Communication Protocols

As we are using a basic internet connection to connect our native application to the YouTube server, there is not any special or new communication protocol which we shall use for connection. We shall probably use TCP protocol as is the same one used by YouTube.

3.4 Database Backend

For storing a basic information of a user such as name, email-id, password, the intended database will be MySQL. For managing such a large content of video we are proposing NoSQL database such as MongoDB.

4. Technical Specifications

4.1 Performance Constraints

- Network connectivity can hamper the search results as the related videos are fetched directly from a YouTube server.
- Large number of users simultaneously using our application can cause problems in getting results as till now we have not decided how much concurrent users, system can manage.

4.2 Memory/OS/Hardware

- RAM: 8GB
- Memory:64GB
- OS: Android 5.0 (Lollipop)+
- Android Studio (Version 3.1.4)
- Java (Version 1.8)