Webgist: Video Search Engine

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Abstract: Growth of internet touched upon every sphere of life. There is some evidence that online videos are increasingly used by people for informal scholarly communication and teaching.According to one study students can learn more fastly and effectively using videos but now a days videos are used as a tool to advertise and promote the Business so, it is difficult to find most relevant and useful video content. People tend to choose the top ranked and the most viewed videos irrespective of their relevance.
To provide students most relevant and useful content free of cost we choosed the 2nd most visited application on internet which is YouTube. According ton one survey YouTube uploads 5000 hr duration videos pern minute. With respect to time this number is increasing constantly so peoples are facing problems regarding finding useful video contents.
So,the key to provide suitable content is “WEBGIST”. The main idea of proposed strategy is to find most useful video for users using youtube API. WebGist enable users to take advantage of constantly growing video resources like, for example, video on demand, Internet television and YouTube, for a wide variety of applications including entertainment, education and communications.

Keywords— WebGist, Youtube API, Video Search Engine, Online Learning, Gist.

I. INTRODUCTION

There has been tremendous growth in online learning because whole world is going online also due to pandemic COVID-19.Publishing a video on the internet is the cheapest source of advertisement as compared to conventional TV advertising campaign. Therefore, many commercial organisations are emerging with their channels on video search websites where they publish and earn money though the traffic fetched by the video, also it is easy for them to link it with company’s main website & other social media. By using WebGist we have an option of watching different videos and whatever we choose to watch fetches suggestions for other related videos. Many believe that delivering lot of related videos will result in top ranking, but it is true only if the content is purely excellent, it will get views by people and thus reinforcing the prominence of the content. The videos that are ranked at top in search results do not only rely on the content but also on content delivery’s right format.
Though creating great content to attract the traffic to your video is the key to get high rank, but if the objective is to increase the number of views then the content must be helpful to the user, informative, shareable and powerful. There are different criteria on which WebGist searches the video, although these criteria are specific to the WebGist provider but there are some basic criteria which are common to all search engines.

II. AIM AND SCOPE

Aim- Our main aim of making this project is to be provide all the study material available on the internet on free basis so they can learn anything they want from home or elsewhere and in free of cost.

Scope- As we all go from this worse pandemic situation now, we all knows the importance of online training.So, in near future also online tutorials having much more demand. Students can learn in any situations like this from and not only students but also any other person who wants to learn new concepts but unable to join any institute can take online tutorials.

III. PROPOSED MODEL

When we are in 6th semester of engineering suddenly due to covid 19 lockdown is happened and all tuition, classes are suspended. This was big loss of students. Then virtual training concept introduces largely in whole country. But as this pandemic hit suddenly it was really tough job for students to search good institutes who can able to give great virtual training to students. As a student we also did lot of struggle to find good programming courses in pandemic. As things are changes quickly virtual training is get essential for learning.
So we decided to make a webapp which gives students or which shows students courses or any classes that they want to learn and that available on youtube.

1) Python :- Python is a popular general-purpose programming language that can be used for a wide variety of applications. It includes high-level data structures, dynamic typing, dynamic binding, and many more features that make it as useful for complex application development as it is for scripting or "glue code" that connects components together. It can also be extended to make system calls to almost all operating systems and to run code written in C or C++. Due to its ubiquity and ability to run on nearly every system architecture, Python is a universal language found in a variety of different applications. Currently python is most popular and widely used language due to its healthy, active and supportive community.

2) Flask :-Flask is a web framework written in Python. It is classified as a micro framework because it doesn't include an ORM(Object Rational Manager) or any such features. When developers developing web application it gives developer varieties of choices, provides you with tools, libraries and mechanics.It provides simplicity, flexibility and fine grained control when ever your developing any web application.

3) JSON :- JSON stands for JavaScript Object Notation.JSON is commonly used to transmitting data in web applications (e.g. sending some data from the server to the client, so it can be displayed on a web page and also vice versa). Mostly it is used to provide public data in web services and APIs. Due to its more lightweight and other features it becomes popular alternative of XML.

When we search for the query in WebGist it simply takes request from client and send it to youtube severs using JSON and youtube API. In Youtube servers it searches for related videos on youtube. Then it sort result using its views and likes, arranges result in order such that most relevant videos to query shows first.
It arrange video by using views, like and comment given by viewers on that video.

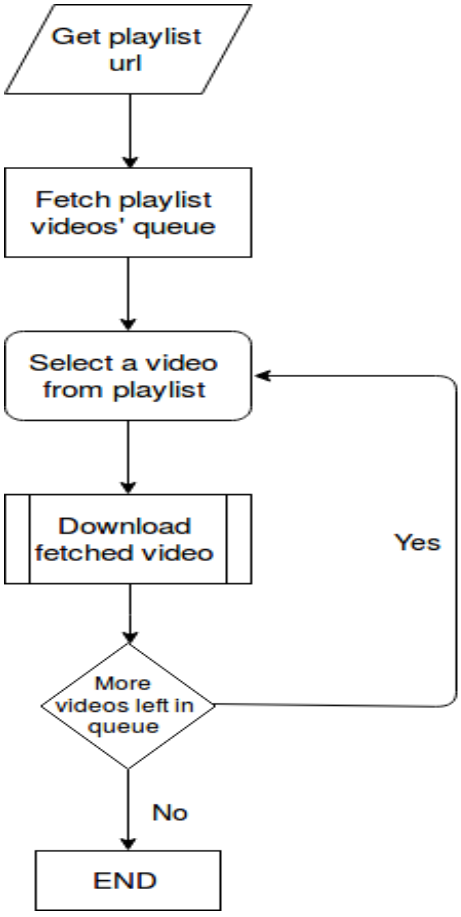

Fig 1 : Working of WebGist

IV. YOUTUBE API

1) API:-

API stands for Application Programming Interface.If you've ever wondered how the modern digital experience got so interconnected and convenient, the answer is APIs. In simple words API is a software intermediary that allows two applications to speak with each other. It is an information gateway that allows the back ends of software and services to communicate with one another.

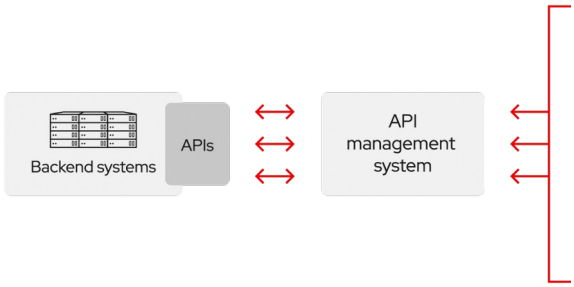

Fig 2 : API WORKING

The YouTube Application Programming Interface allows developers to access video statistics and youtube channel data of youtube via two types of calls, REST and XML-RPC. The YouTube Data API v3 lets developer incorporate YouTube functionality into their application/software. You can use the API to fetch search results and to retrieve, insert, update, and delete resources like videos or playlists on youtube.

To use YouTube's API, a developer must acquire a Developer ID this is an additional property that is attached to the developers YouTube account which make it more secure.

In conjunction with the YouTube Player APIs and the YouTube Analytics API, the API lets your application provide a full-fledged YouTube experience that includes search and discovery, content creation, video playback, account management, and viewer statistics
The APIs has since extended and are now compatible with many mobile operating platforms like Android and iOS. It is obvious that the Android API's are more complete with the iOS resources somewhat lacking. A list of this API's available for both platforms are below:
Other YouTube API's (the traditional API's) include:

1) Reporting and Analytics API's:
The YouTube Analytics and Reporting allow developer retrieve analyticcs data to automate complex reporting task, build custom dashboards,etc. YouTube Reporting API supports applications that can retrieve and store bulk reports, then provide tools to filter, sort, and mine the data.The YouTube Analytics API supports targeted, real-time queries to generate custom reports in response to user interaction.

2) YouTube Data API:
YouTube data API(v3) allows developers incorporate YouTube functionality into their application.This API is used to fetch results and to retrieve, insert, update and delete videos or playlists of YouTube.

V. ADVANTAGES

- In virtual world this is best platform for students, not only for students it is best for all self learners and interested people, who want to learn something.
- In low cost as compare to institutions students can learn various courses.

VI. DISADVANTAGE

- If student have any doubts in course it is difficult to solve their problems as compare to coaching in institutions.
- It is necessary for users to have good network.

VII. CONCLUSION

For learners who want to learn something from home during free time In low cost this web application is perfect for them. In today's virtual world this is one of the best platform for Students to learn various courses. It also help them to watch most relevant content and save their time.

Learners can learn form anywhere, At anytime free of cost.

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