**SYNOPSIS**

**Report on**

**STUDENT TUBE**

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**Submitted to: -**

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**ABSTRACT**

This project is about how new technologies can be used to develop a python application that enables the user to download video to their machine. It will analyze the possible utility of one single piece of software as programming application by looking at examples of intelligent programs with natural language processing that are now available, with various categories of support.

Natural Language Processing is used to activate the ability to communicate socially, storing (and evaluating) information in the context of the user. New technology, it is suggested, may soon make the concept of using the internet. Experiments conducted on this system, combined with user testing, have provided evidence that a basic program with natural language processing algorithms in the form of a YouTube video downloader application, with basic natural language processing and the ability to function without the need for another type of human input (or programming) may already be viable.

**INTRODUCTION**

Human interaction is rapidly being supplanted. Performance is one of the key reasons behind this shift. Rather than progress, technology has undergone a significant transformation. In today's world, we use technologies like Machine Learning and Neural Networks to teach our machines to do their jobs on their own or to think like people. With the help video downloader and converter, we may easily download any content thay is available on the YouTube and can easily share it among others. This student tube application will be beneficial to the children, and others by ensuring that interacting with machines is no longer a challenge. Even a learning child or a old elder persons who are working and most of their stud is through the internet can use it very efficiently. The following are some of the basic tasks that most virtual assistants can help with:

• Video Download

• Video Quality Selector

• Video to Audio converter

• Sharing of Files

Our Student Tube is a desktop-based application created with Python modules and libraries. This application is only a basic version that can do all the duties listed above. All you must do is give the application a YouTube video link, and the application will take care of the rest.

The smart functions which can be performed by the Student Tube application will be that it can download any video that is available on the YouTube no matter the size and length of the video all you need is the internet for the downloading of the video. The smart functioning is that it also let you convert the video to mp3 for the user easement so that it can be listen easily without even seeing the video and the sharing of the document can be also easily done. It reduces the time as no need to save the video again and again by the internet and can be shared to anyone by just downloading once.

**TECHNOLOGY USED**

**Python**

Python is a high-level, interpreted programming language. It is a robust, highly useful language focused on rapid application development (RAD). Python helps in the easy writing and execution of codes. Python can implement the same logic with as much as 1/5th code as compared to other OOPs languages. Python provides a huge list of benefits to all. The usage of Python is such that it cannot be limited to only one activity. Its growing popularity has allowed it to enter some of the most popular and complex processes like Artificial Intelligence (AI), Machine Learning (ML), natural language processing, Data science, etc. Python has a lot of libraries for every need of this project such as Pytube for downloading videos, selenium for web automation, etc. Python is reasonably efficient. Efficiency is usually not a problem for small examples. If your Python code is not efficient enough, a general procedure to improve it is to find out what is taking most of the time and implement just that part more efficiently in some lower-level languages. This will result in much less programming and more efficient code (because you will have more time to optimize) than writing everything in a low-level language. Python allows the programmer to implement many major functionalities which can not be easily implemented by any other language without making the code or the program robust or redundant as it has included libraries which contain almost all the things that are needed while designing a major application.

The main purpose of using the language was it makes it easier to implement the code of the application and gives the required and needed functionalities for the application in an efficient way. The results are

also accurate, and the modification can be done easily if there are any changes found during the testing phase.

**HARDWARE AND SOFTWARE REQUIREMENTS**

* Processor i5 and above
* 4 GB Ram and above
* Windows 8 and above

**MODULES**

1. **Video Downloader**

This is a module in which the application will download the video of the entered link of the YouTube video and will save it to the user machine and the user can be also be able to select the quality of the video that has to be downloaded.

1. **Playlist Downloader**

In this module the application can be able to download the whole playlist of a YouTube channel and will save it accordingly to the sequence that is available online.

1. **File Format Converter**

In this module the application provides a additional functionality of converting the format type of the downloaded video that is the video will be converted to a mp3 file itself at the time of downloading and will make it easier to the user to listen the video and to share it with others.

1. **Video and audio player**

The application will provide a module where the user will be able to play the downloaded videos or the audios that will let the user check the thing for confirmation before exiting the app.s

**FUTURE SCOPE**

The downloading application which are currently available are fast and responsive, but we still must go a long way. The understanding and reliability of the current systems need to be improved a lot. The applications available nowadays are still not reliable in critical scenarios.

The future of these applications will have the world incorporated with Artificial Intelligence which includes Machine Learning, Neural Networks, etc., and IoT. With the incorporation of these technologies, we will be able to achieve new heights. What these applications can achieve is much beyond what we have achieved till now. Most of us have SnapTube, that is a application that roll out in the market in 2016 and has given a huge privilege to the user to download the videos from the online sites. Our application will decrease the gap between online study material and the students, and it will also help the students, working people to perform tasks very easily. After using this people doesn’t have to depend on others for their task if they don’t know how to do them.

**Functioning of the Project**

* The user must give access after installation to let the application take inputs.
* Users don’t need to register they can perform tasks by just installing it.
* Users need to provide the link of the video that they want to download.
* Tasks that can be performed by the application are video downloading, video quality selecting, changing the type of mp4 to mp3 and sharing of the downloaded material.
* The user needs to input the link properly as the input link will be taken as tha path for downloading the video.

**CONCLUSION**

The student tube application system will be made by the python programming language and can be integrated with Iot techniques to achieve a smart download application that can download any video available on the internet and can convert it into another format.

It can be designed to minimize the human efforts to interact with many other subsystems, which would otherwise have to be performed manually by achieving this the system will make human life comfortable.

**GANTT CHART**

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| – | **WEEK**  **1** | **WEEK 2** | **WEEK 3** | **WEEK 4** | **WEEK 5** | **WEEK 6** | **WEEK 7** | **WEEK 8** | **WEEK 9** | **WEEK 10** | **WEEK 11** | **WEEK 12** |
| Requirement analysis and feasibility check |  |  |  |  |  |  |  |  |  |  |  |  |
| Designing |  |  |  |  |  |  |  |  |  |  |  |  |
| Coding |  |  |  |  |  |  |  |  |  |  |  |  |
| Testing and maintenance |  |  |  |  |  |  |  |  |  |  |  |  |