



## Youtube SRS

Software Engineering (Daffodil International University)

# System Requirement Specification For Video Streaming Website



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## 1. Introduction

## 1.1. Purpose

The purpose of this document is to present the detailed description of the **YouTube**. It will explain the purpose and features of the system, the interfaces of the system, and constraints that it must operate.

## 1.2. Document Conventions

This document uses the following conventions:

- MHZ-Megahertz
- SDLC-Systems Development Life Cycle
- MB–Megabytes
- KB-Kilobytes
- HD-Hard Disk

## 1.3. Project Scope

- This is a video streaming site name – “YouTube”

YouTube is a website designed for sharing video. Millions of users around the world have created accounts on the site that allow them to upload videos that anyone can watch. Through YouTube people can watch videos, share videos, Upload videos and can even download them.

## 1.4. Reference

- <http://www.google.com>
- <http://www.slideshare.net>
- <http://www.youtube.com>

## 2. Overall Description

### 2.1. Productive Perspective

YouTube is an American video-sharing website headquartered in San Bruno, California. YouTube allows users to upload, view, rate, share, add to favorites, report, and comment on videos, and subscribe to other users. It offers a wide variety of user-generated and corporate media videos. Available content includes video clips, TV show clips, music videos, short and documentary films, audio recordings, movie trailers, live streams, and other content such as video blogging, short original videos, and educational videos.

### 2.2. OPERATING ENVIRONMENT

YouTube can be operated by any system which has a browser and a decent internet connection. For example – Windows, Mac, Linux, Android, IOS.

➤ For PC / Laptop:

- Ram: 512MB
- Space: 80GB Hard Drive
- Core: Pentium IV MHZ or more
- Cache: 512kb

➤ For Android/IOS:

- Ram: 512Mb
- Space: 500MB
- Cache: 200kb

## 3. Functional Requirement

### 3.1 Sign up / Sign In

3.1.1. Description: Allows user to sign up / sign in

3.1.2. Input: E-mail Id, Password

3.1.3. Output: Allows user to register their account on sign up and allows user to access on signing in.

3.1.4. Processing: When user sign up, system create new database and register that user and when user sign in it matches the login credentials from the database and if matches grant the access.

### 3.2. Search

3.2.1. Description: Allows user to search any video through entering keyword.

3.2.2. Input: Input Keyword

3.2.3. Output: Display videos related to keywords.

3.2.4. Processing: Matches the key board in the database and display videos according to that.

### 3.3. Share Videos

3.3.1. Description: Allows user to share Videos with friends and family.

3.3.2. Input: Click on share button and select the person from friend list.

3.3.3. Output: Pop up appeared = "Video shared successfully"

3.3.4. Processing: When the user click share button, its end the video to the user friend account.

### 3.4.DownloadVideos

3.4.1. Description: Allows user to download videos

3.4.2. Input: Click on the download button

3.4.3. Output: Pop up appeared that video has been downloaded.

3.4.4. Processing: Fetch the video from server that has been store database and transfer the video file to user device through download.

### 3.5.UploadVideos

3.5.1 Description: Allows user to upload their videos into his account/channel.

3.5.2. Input: Click on Upload Button.

3.5.3. Output: New window pop up asking to select the file to upload.

### 3.5.1. Select File

3.5.1.1. Input: Select the file you want upload.

3.5.1.2. Output: Pop up appear that file has been uploaded.

3.5.1.3. Processing: When the user uploaded the file, the file has been uploaded goes to the server and get saved in the database.

### 3.6. Navigation Section

3.6.1. Description: When user click the navigation section then three options appeared.

3.6.2. Input:

Select Navigation

3.6.3. Output:

Options appeared:

1. Home

2. Trending

3. Subscription

### 3.7. Home

3.7.1. Description: This is the user main page

3.7.2. Input: Click on Home.

3.7.3. Output: Search based / history based / Subscription based videos showed up.

3.7.4. Processing: A list of videos based on user history, subscription and search has been displayed.

### 3.8. Trending

3.8.1. Description: Show video on location.

3.8.2. Input: Click on Trending.

3.8.3. Output: Location based most popular videos display.

3.8.4. Processing: System check the location of the user and then display the top most popular videos of that region.



### 3.9.Subscription

3.9.1. Description: It displays all the channel subscribed by user.

3.9.2. Input: Click on subscription

3.9.3. Output: Display all the channel video that user subscribed.

3.9.4. Processing: System check what channels user has subscribed from the database and display the videos of their channel.

### 3.10. Library

3.10.1. Description: This section contains options

3.10.2. Input: Click on Library

3.10.3. Output:

Display option:

1.History

2.WatchLater

3.Liked Videos

### 3.11. History

3.11.1. Description: it shows all the History of all the videos that the user watched so far.

3.11.2. Input: Click on History

3.11.3. Output: Shows all the videos that user sees so far.

3.11.4. Processing: Check user data in database and display the videos that has been watched by the user.

### 3.12.WatchLater

3.12.1. Description: It shows all the videos that the user has added to watch later category.

3.12.2. Input: Click On watch later

3.12.3. Output: Display all the videos (add to watch)

3.12.4 Processing: Check user data in the data base and display all the videos that has been added by the user in add to watch later section.

### 3.13.LikedVideos

3.13.1. Description: It shows all the liked videos that the user liked so far

3.13.2. Input: Click on Liked Videos

3.13.3. Output: List of liked videos appeared.

3.13.4. Processing: System check the user account and display all the liked videos by the user so far.

## 4. NON-FUNCTIONAL REQUIREMENTS

### 4.1. Performance Requirements

- The user must have a device which is at least to play a 144p resolution video.
- The user must have at least 500kbps of net connection in order to play the video without buffering.

### 4.2. Safety Requirements

If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a server crash, there cover method restores a past copy of the data base that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed-up log, up to the time of failure. And in the meanwhile, the server switch to the backup servers to keep the site working.

### 4.3. Security Requirements

Security systems need database storage just like many other applications. However, the special requirements of the security market mean that owner must choose their database partner carefully. All the Private data uploaded by the user is absolutely confidential to the other users. User can also report for if the find any suspicious activity in the YouTube, so the security department can take care of that.

### 4.4. Software Quality Attributes

- **AVAILABILITY:** The site is available for the users 24x7.
- **MAINTAINABILITY:** The developers and a team of software engineers work on the maintenance and the updates of the site.
- **USABILITY:** The site can be used anywhere if the connectivity to the internet and a device.

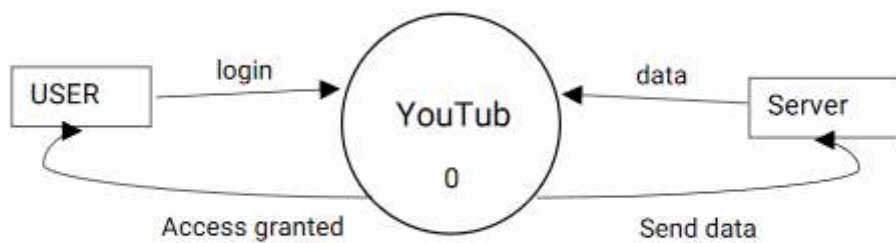
## 5. DESIGN Phase:

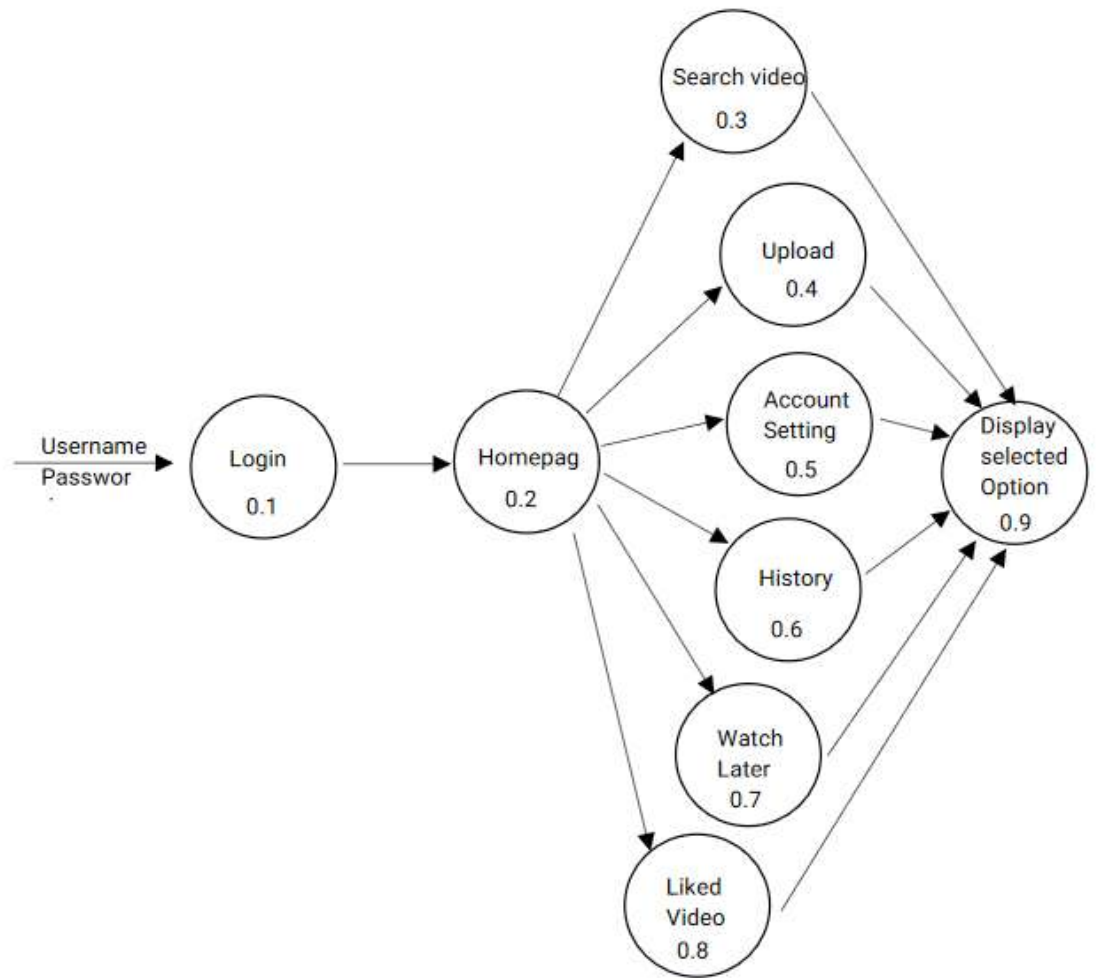
Design phase deals with transforming there requirements, as described in the SRS document into a form that can be used while programming. In design phase of SDLC based on requirement captured in SRS.

### DFD (Dataflow Diagram)

A data flow diagram (DFD) maps out the flow of information for any processor system.

#### Level 0





## LEVEL 2

