Youtube-like application

Analysing and design document

Introduction

video has vastly become the primary way the world consumes content. With its increased popularity, digital video can be used to connect with and captivate an audience, develop user trust and engage people.

Problem statement

 sharing video, uploading it electronically, and interacting with it, face a lot of challenges in browsing and obtain them

needing to a special platform that provides these services easily.

Background

- YouTube is a video sharing and social media platform
- California, United State, 2005

Proposed Solution

 YouTube application has been proposed to work on various mobile devices, eliminating the need for a video playback program or application in ad

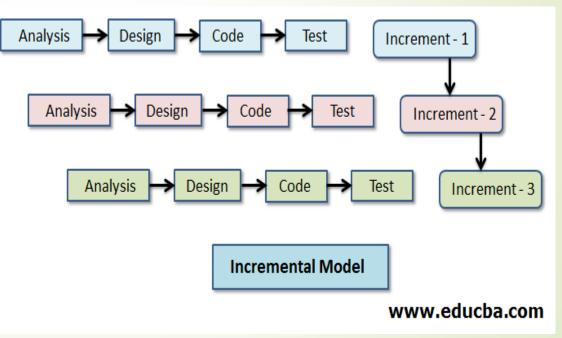
Work plan

Using incremental process model:

increment1: Determine the main requirements that the system must initially meet.

Increment2 and Later required increments:

Determine the new requirements and changes and repeat previous increment



Requirements specification

Functional requirements

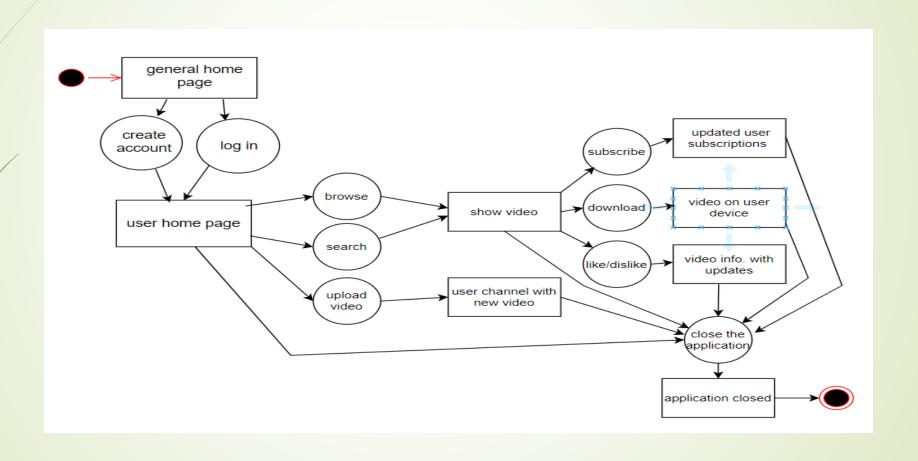
- Create account
- Search and browsing
- Video playback
- Commenting and interaction
- Sharing a video
- Delete a shared video
- Subscribing
- downloading

Requirements specification

Non-Functional requirements

- Compatible with Operating System
- Security
- Scalability
- Bandwidth

Activity diagram

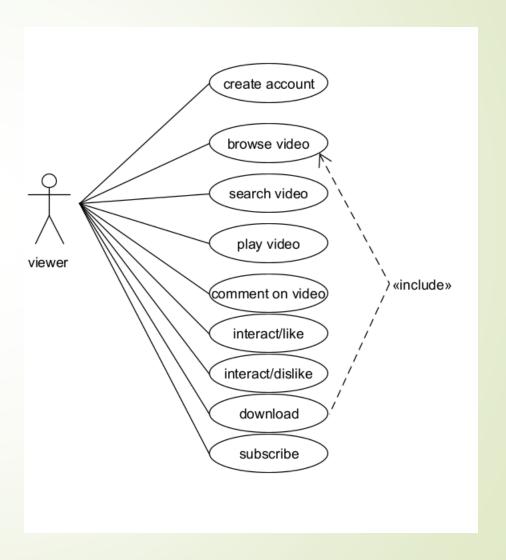


Usecase modelling - Actors

Actor	role
Viewer	 Browse videos Search for videos Watch videos Like/dislike video Comment on video Subscribe to channel
Video creator	 (all previous roles of viewer) Upload videos view video analytics (e.g., views, likes manage uploaded videos

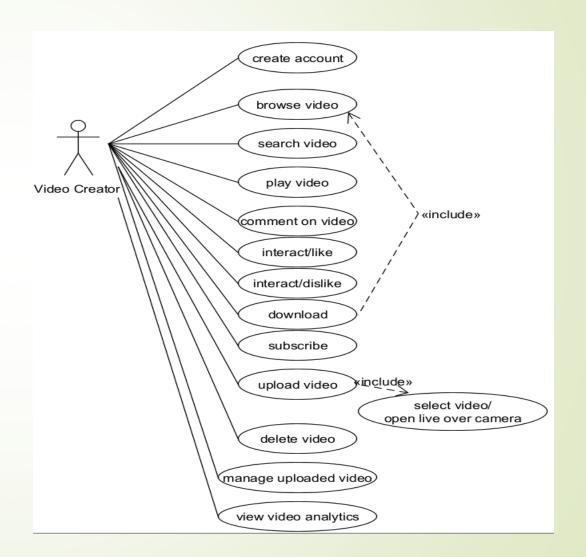
Usecase modelling – usecase diagram1

 Usecase diagram that represent viewer interact with the application



Usecase modelling – usecase diagram2

 Usecase diagram that represent viewer interact with the application



Create account table

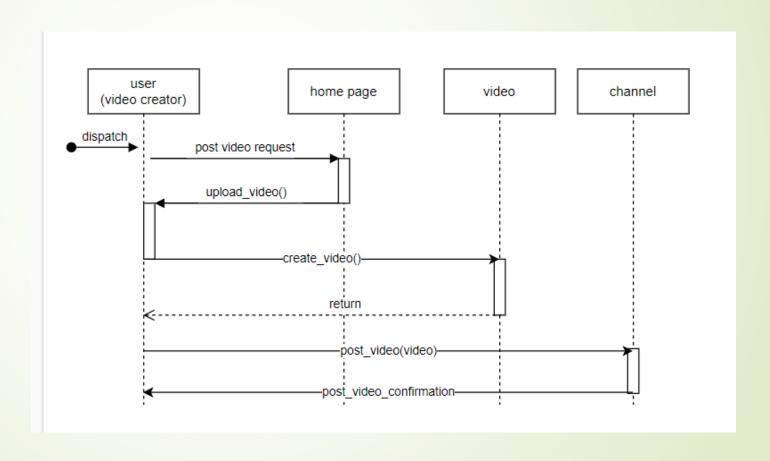
Actors	Viewer, video creator
Description	 When the user requests creating account: System view the required information (name, google account, birthday, gender, password) If the user need a google account to create an account System adds the new account to the database and allocate updatable personalization content to him.
Data	Name, email, password, gender, birthday, profile picture
Stimulus	Viewer wants to create an account to login to the application
Response	Create viewer account with information(Name, email, password, gender, birthday, profile picture)
Comment	

Sharing a video table

Actors	Video creator
Description	 User can share a video to his channel through the following steps: User uploads video from his gallery or camera recording directly for live appearing. Then he adds a title and description for the video. User selects a thumbnail for video or suggested options by the system User chooses the privacy setting for the video (public, unlisted, private, downloadable or not) User can add relevant tags or keywords to help viewers find the video and insure uploading operation
Data	Video, title, privacy setting(public, unlisted, private, downloadable or not)
Stimulus	Video creator wans to share a video with people through his channel in the application
Response	Sharing the video in video creator's channel
Comment	

Sequence diagram:

(Uploading and posting a video to video creator channel)



Class diagram

User

- userld: String
- userName: String
- email:String
- password:String
- profilePicture
- gender
- birthday
- + login()
- + logout()
- + browseVideo()
- + searchVideo(key:String)
- + uploadVideo()
- + watchVideo(video:Video)
- + likeVideo(video:Video)
- + dislikeVideo(video:Video)
- + comment(video:Video, com:Comment)
- + subscribe(channel:Channel)
- + manageAccount()

Comment

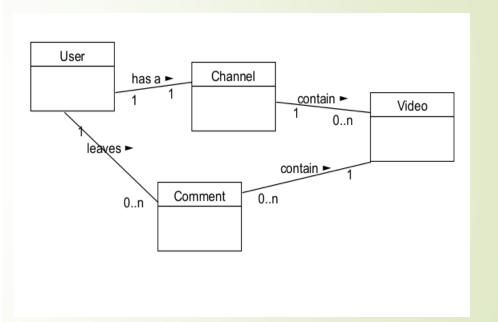
- commentld:String
- commentText:String
- commenter: User
- video:Video
- comTime: Date

Channel

- channelld:String
- name:String
- owner: User
- + getSubscribingCount
- + publishVideo(video:Video)

Video

- videold:String
- title:String
- uploader: User
- uploadDate:Date
- details:String
- numLikes:int
- numViews:int
- + playback()
- + stop()
- + pause()



References

- Lectures of the course
- draw.io (diagrams.net) website.

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The End