Writing verifiable requirements

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1 Key Objectives

The main objective of this application is to enable content creators to upload videos in a short format, no longer than 15 seconds, and to have viewers to be able watch, download, comment and like the content published by the creators.

2 Requirements

2.1 User Requirements

U-1 As a creator I want to publish videos.

U-2 As a viewer I want to be able navigate between videos.

U-3 As a viewer I want download videos from the application.

2.2 System Requirements

SY-1 The system shall enable viewers and creators to comment on a video.

SY-2 If a video that is playing ends, the system shall repeat the video from the beginning.

SY-3 If the creator enables it, the system shall allow a viewer to download a video.

2.3 Quality Requirements

2.3.1 Usability

USE-1 A user shall be able to navigate between videos using gestures.

- USE-1.1 **Swipe Up**: To view the next video in the queue
- USE-1.2 **Swipe Down**: To view the previous video in the queue, if its the first video in the queue, the system shall empty the queue and fetch new videos.

2.3.2 Portability

POR-1 At least 70% of the code base should be share between the Android and iOS source code. *Programming Language: Kotlin*

2.3.3 Performance

PER-1 The application should take no longer than 3 seconds to load the main screen while on Wi-Fi and no longer than 5 seconds while on cellphone data (4G).

3 Requirement Feasibility

SY-3 - "If the creator enables it, the system shall allow a viewer to download a video"

3.1 Assumptions

- The video loaded successfully
- The application is caching on disk a video that was previously loaded.
- The device has a functional touch screen.
- The application is not frozen. *Do not respond to user input.*
- The device have enough disk space to store the video.
- The device have enough available RAM to perform the download.
- The application have access to the device file system.
- The user allows the application 'Write to disk' permission.

3.2 Description

If all the assumptions happens, the video is already in cache of the device, both iOS and Android have a sandbox area in the file system, so the application do not have direct access to the main device file system, since the user already allows access to the application to write to the main file system, the only thing that we need to do is copy the file from the sandbox area to main device file system. As long as the device have enough storage to save the video twice, once in the cache and the other one in the file system, the application should be able to export the video.

4 Requirement Verifiability

USE-1 - "A user shall be able to navigate between videos using gestures."

4.1 Test Case 1: Regular Flow

The user touch the application icon from the home screen in their device, the application load the splash screen, the application start rendering the layout, while it loads the video in the background, the video start playing, the user swipe up, the current video stop playing and disappears going up while the next video takes the place of the previous one, and start loading the video content. The user swipe down, the current video stop playing and disappear by moving to the bottom, the previous video comes from the top and starts playing.

4.2 Test Case 2: Pull to refresh

The user touch the application icon from the home screen in their device, the application load the splash screen, the application start rendering the layout, while it loads the video in the background, the video starts playing, the user swipe down, the application displays a loading animation on top of the video, the video stop playing, a new video takes the place of the existing video and starts playing. In the background the application empty the previous video queue, and fetch a new one.