Requirements

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ABSTRACT:

The consumption of media via video streaming services is higher than ever. With video streaming platforms such as Netflix, Twitch, and YouTube growing continuously, consumers of these platforms have an endless amount of content to watch. Often times, consumers who may watch multiple video media or platforms at once, have to change between multiple screens or browser windows. Proposed is a multimedia platform which will all the consumer to watch multiple video streaming services at once, on a single screen, to alleviate the need to switch between screens or windows.

LIST OF FIGURES:

LIST OF TABLES:

1. INTRODUCTION:

1.1. Purpose

This video streaming service will give users the ability to experience many types of video media, from multiple different platforms, at the same time. The streaming will provide on demand service for the customers. This includes Live TV and Sports streams as well on demand service from streaming platforms like Youtube, Twitch, Netflix and many more. This will allow users to never miss their favorite entertainment. People that are into betting will love the implementation as their bets are based on every game with every second being crucial.

1.2. Description

This document will describe all functional and non-functional requirements of the RedFlix video streaming service, as well as provide a visual representation of the relationship between the functional requirements via a use case model.
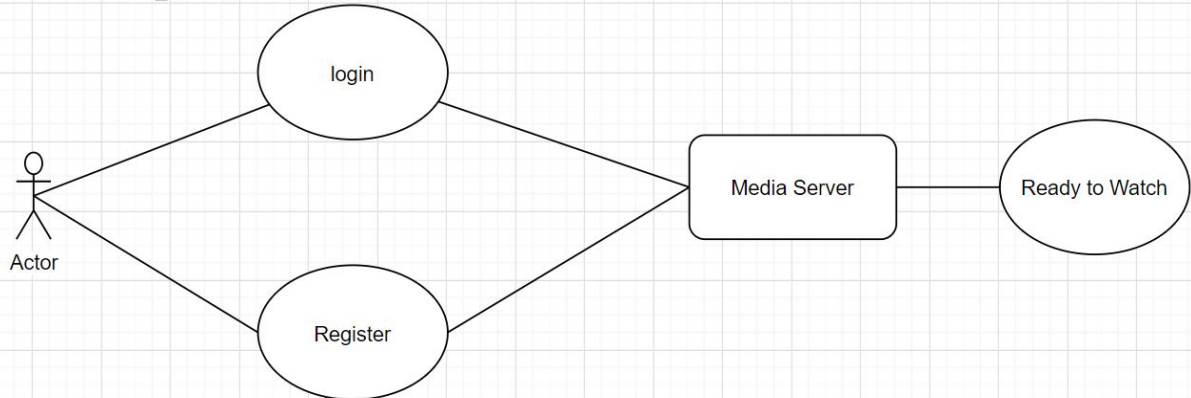
2. USE CASE MODEL FOR FUNCTIONAL REQUIREMENTS:

2.1. Use case name: UC_1

Participating Actors: User, Media Server
Scenario: New users registering or if already registered, logging into the system.

User Functions (US_1): Login and Registration

2.2. Use Case name: UC_2

Participating Actors: User and Media Server
Scenario: Once the user logs in, the user may browse our service. In this use case, it shows how the user can start watching videos. First the user logs in, then proceeds to select streaming service and type of video to watch from. Then the search result is sent to the media server to provide output to the user. After this the user can select up to 6 videos to project and can choose one main video out of 6 to emphasize it.

2.3. Use Case name:UC_3

Actors: User, Media Server
Scenario: This case shows how the user can save a video to the library. This step involves all the steps in UC_2 and then from the watch screen, the user can

add the videos by an option provided. These videos will be sent to the media server to save for later and the user can access it via the library option.

User Function(US_3): Adding videos to Library
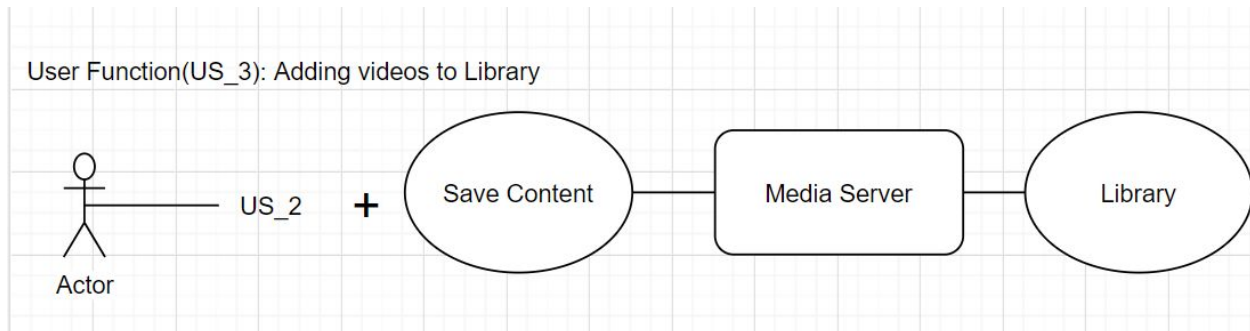
2.4. System View
Scenario: The user will initially be shown the home screen listing what services we offer. The home screen will provide the user to login or if new, the option to register for service
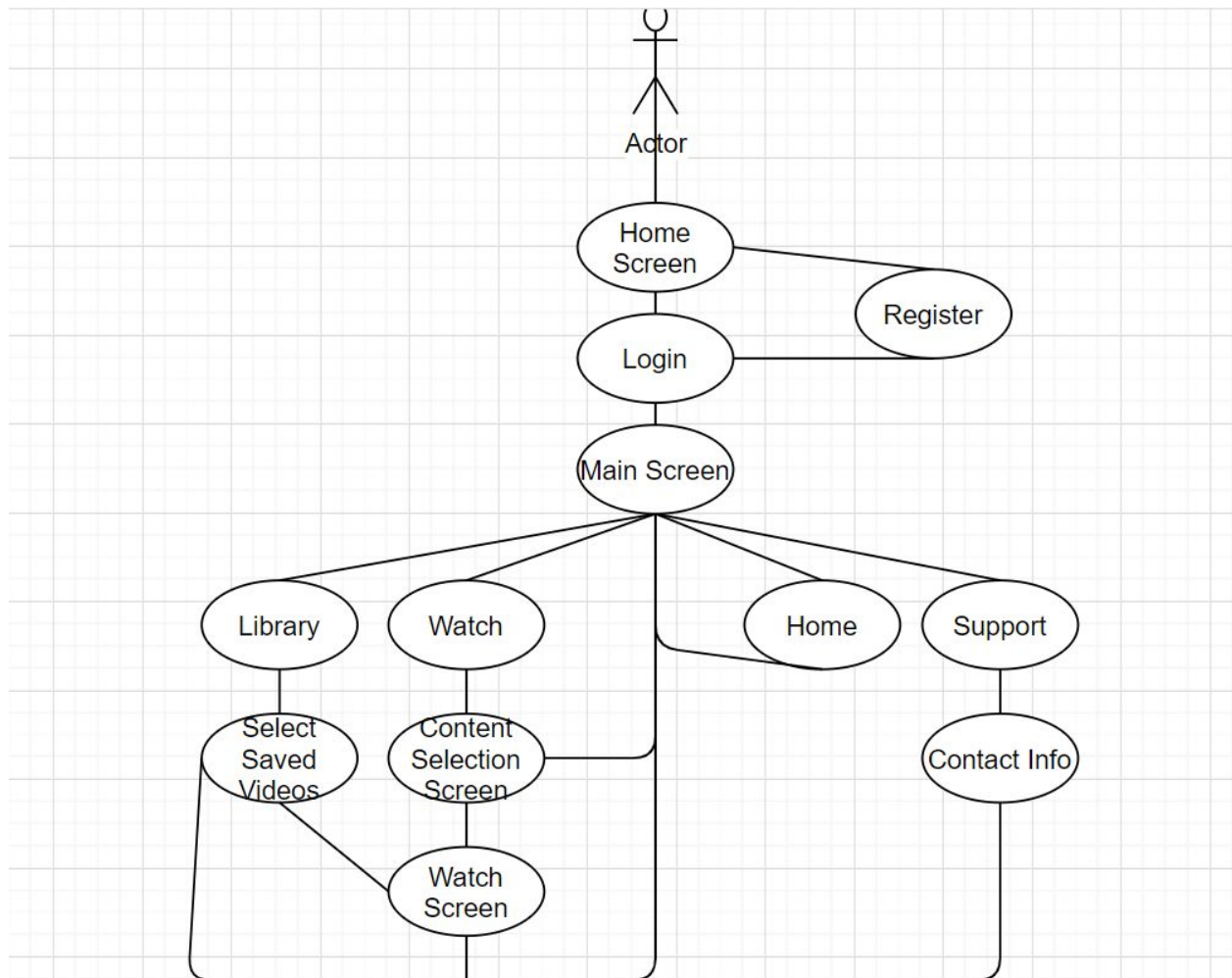
3.   RATIONALE FOR USE CASE MODEL:

3.1.   A user shall be able to log in

3.2.   A user shall be able to click a Support tab despite membership status

3.3.   A user shall be able to click an About Us tab despite membership status

3.4.   A user shall be able to register via facebook, google, or preferred email

3.5.   A user shall be able to select a subscription plan

3.6.   A user shall be able to browse available content

3.7.   A user shall be able to search available content

3.8.   A user shall be able to select videos for playback on six screens simultaneously

3.9.   A user shall be able to expand one of six selected videos

3.10.   A user shall be able to switch expansion of either six screens

3.11.   A user shall be able to organize selected videos/categories
3.12.   A user shall be able to stream videos
3.13.   A user shall be able to fast-forward videos
3.14.   A user shall be able to pause videos
3.15.   A user shall be able to rewind videos
3.16.   A user shall be able to scrub videos
3.17.   A user shall be able to adjust stream volume
3.18.   A user shall be able to access the home screen at any point
3.19.   A user shall be able to log out
3.20.   A user shall be able to unsubscribe
3.21.   A user shall be able to edit payment information
3.22.   A user shall be able to add videos to a Watch list
3.23.   A user shall be able to remove videos from watch list
3.24.   A user shall be able to stream videos from supported platforms
3.25.   The system shall be able to accept payments via credit/debit card
3.26.   The system shall show a description of the platform when the mouse hovered over that specific platform
3.27.   The system shall redirect the user to the Watch screen when the user clicks on a platform in the Main screen
3.28.   A user shall be able to contact customer service in the Support tab via email/phone number
3.29.   The system shall display FAQs in the Support tab
3.30.   A user shall discover company details in the About Us tab
3.31.   The system shall offer a search service based on platform, category, and or text search
3.32.   The system shall stream search results to screens based on search order
3.33.   The system shall exit the full screen mode via the esc key
3.34.   The user shall be able to rearrange screens via drag and drop
3.35.   The user shall be able to collapse and expand the dashboard

4.   NON-FUNCTIONAL REQUIREMENTS:

4.1.   Security
      4.1.1.   The system shall be secure with 99.9% certainty
      4.1.2.   The user data will be stored securely on a cloud based system.
      4.1.3.   The system shall require users to use a password that is 8-20 characters long
            4.1.3.1.   The system shall require at least 1 uppercase letter, 1 lowercase letter, and 1 number

4.1.4. Access rights authorizing on who is allowed to watch both live as well as on demand streams has to be possible on per stream basis (AD group based or individual AD members)

4.2. Availability
4.2.1. The system shall be available 24/7
4.2.1.1. If a user forgets there login credentials the system will send a reset password email within 4 seconds to the accounts email address
4.2.1.2. The streaming system must be designed and delivered in high availability configuration with built in redundancy to ensure smooth operation even when one component fails.

4.3. Scalability
4.3.1. The system shall be able to reach over 100,000 users
4.3.2. The Audio Video Streaming System has to be scalable for up to 2000 simultaneous users from within the IAEA at all locations plus up to 500 additional but external users connecting through the Internet. Note: For connection of the up to 500 external users Cloud based services are allowed but all internal connections have to be streamed from on premise systems.
4.3.3. The systems bandwidth shall have a bandwidth of 65 Mbps

4.4. Reliability
4.4.1. When the user registers and sets up a account with the system there private information secure with us
4.4.1.1. There information will be available to them upon the request of the user request
4.4.1.2. If the user desires to cancel their subscription with the system then the system will delete their credit card information but keep their name, email, and phone number.
4.4.1.2.1. After 2 years of inactive use from the user, the system will permanently delete all records from the system
4.4.2. The user must be able to log into the system with their credentials (email and password)

4.5. Usability
4.5.1. The system shall clearly display a button/click option for the home page
4.5.2. The system shall showcase a drag-and-drop feature when ordering currently playing media
4.5.3. The system shall clearly display a search feature

5. EVIDENCE THE REQUIREMENTS HAVE BEEN PLACED UNDER CONFIGURATION MANAGEMENT:

6. REFERENCES:

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6.7.