

Ntuaflix2023-30

Software Requirements Specification

Version 2

Revision History

Date	Version	Description	Author
15/12/2023	1	First Version of S.R.S.	Team
18/02/2024	2	Final Version of S.R.S.	Team

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Introduction

This document provides a comprehensive architectural overview of Ntuaflix, outlining the system's intended capabilities, environment, and main functionalities. It aims to give stakeholders a clear understanding of the system requirements and serves as a guideline for the development team to design and implement the system. The focus is on the user requirements, system features, and the constraints under which the system must operate.

Purpose

The purpose of this document is to clearly define the system to be developed, ensuring that the end user, designers, and developers have a thorough understanding of the requirements and functionalities of Ntuaflix. It serves as an agreement between stakeholders and the development team regarding the system's features and constraints.

Scope

This document will cover the Ntuaflix system, focusing on its interaction with end users, the technical requirements for its development, and its operational environment. It will describe the stakeholders, the integration with existing systems, and the business processes that Ntuaflix aims to enhance or replace.

Definition, Acronyms and Abbreviations

Term	Definition
RAID	(Redundant Array of Independent Disks): A data storage virtualization technology that combines multiple physical disk drive components into one or more logical units for the purposes of data redundancy, performance improvement, or both.

References

No references used.

Overall Description

Problem Statement

End users currently face issues such as a limited selection of movies/shows, difficulties in navigating the existing system, and slow performance during peak usage times.

Background

The problems identified stem from outdated system architecture, which cannot effectively handle current user demands and lacks modern features that facilitate user engagement. Additionally, slow performance issues have escalated due to an increase in the number of users, driven by changes in the business environment and new business policies aimed at expanding the user base.

Objectives

Ntuaflix aims to provide a user-friendly platform for browsing, searching, and viewing movies and shows. It seeks to offer enhanced performance, a broad selection of content, and interactive features such as ratings and reviews, thereby addressing the current system's limitations.

Constraints

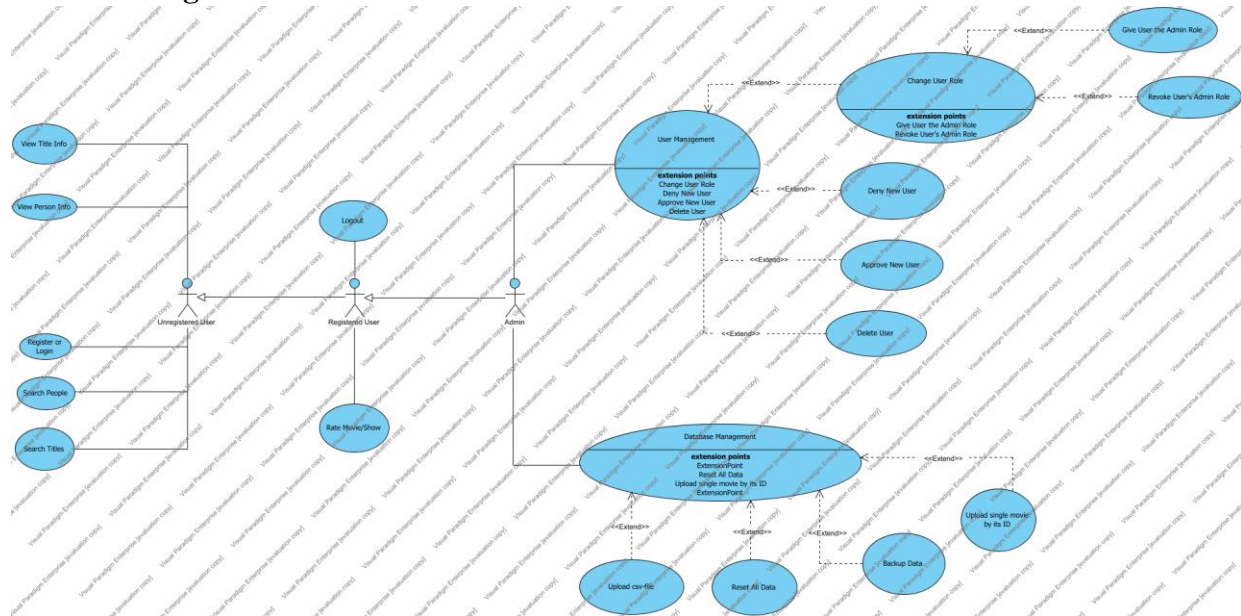
The only constraint this project has is its poor scalability, as it can sustain up to 100 users simultaneously.

Functional Requirements

Ntuaflx will include features such as advanced search capabilities, user authentication and profile management, movie/show ratings and reviews, personalized recommendations, and seamless integration with external services like IMDb for additional content information.

Use Cases

Use Case Diagram



Use Case	Description
Approve New User	
Backup Data	
Change User Role	
Database Management	
Delete User	
Deny New User	
Give User the Admin Role	
Logout	
Rate Movie/Show	They can rate the movie or show (not a single episode, but the show all over) in a grade from 1 to 10 stars. The average rating is updated accordingly.
Register or Login	
Reset All Data	
Revoke User's Admin Role	
Search People	There're no filters for this type of search.
Search Titles	They can use certain filters: genre (one or multiple), rating range, year release range. They can also filter by searching only for movies or only for

	shows.
Upload csv-file	The csv upload options are: pload title basics, upload name basics, upload title akas, upload title crew, upload title episode, upload title principals, upload title ratings.
Upload single movie by its ID	We search the movie we want to upload from imdb. In the link, there's its id. For example, for Dune (2021): https://www.imdb.com/title/tt1160419/ , so the id istt1160419.
User Management	
View Person Info	1) If the selected person has a photo, the user is able to press on that photo so to be redirected to the corresponding official IMDb site. 2) In the "Known for Titles" tab, the titles that are in a golden box represent the title that the person is most known for .
View Title Info	

Requirements

Requirement	Description
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User Requirements

The intended users of Ntuaflix are movie and TV show enthusiasts ranging from casual viewers to cinephiles. The system is designed for use across various environments, including personal computers and mobile devices, ensuring accessibility and convenience for users at home or on-the-go.

Actor	Description
Admin	Administrators are also registered users.
Registered User	The registered user has the capabilities of the unregistered user, as well as logging out and rating.
Unregistered User	

Technical Requirements

Performance

Scalability

Security

Maintainability

Usability

Localization Support

Auditing and Logging

Availability

Hardware Requirements

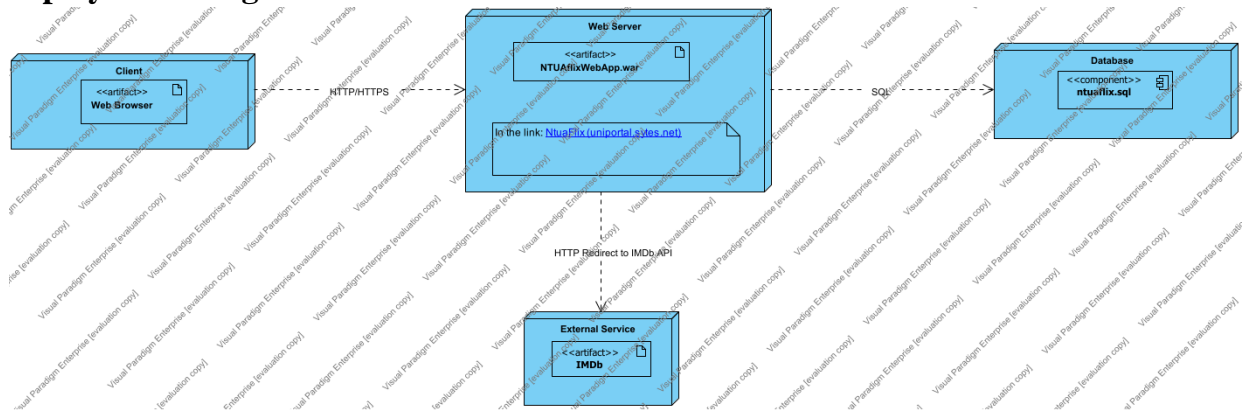
Ntuaflux requires a web server capable of running modern web technologies (e.g., HTML5, CSS3, JavaScript), a database server that supports SQL databases, and adequate storage and processing power to handle high user traffic and data throughput.

Network

Client Computers

Deployment Requirements

Deployment Diagram



Nodes

Name	Description
Client	Represents the end-user devices such as smartphones, tablets, or computers through which users interact with the web application using a web browser.
Database	
External Service	If the user clicks on one person's image, they'll be redirected to their corresponding IMDb profile tab.
Web Server	Acts as the intermediary between the client devices and the application server, handling HTTP/HTTPS requests and responses.

Components

Name	Description
Admin Redirection	Determines redirection after login.
Authentication	
Database	
Database	
Database	
Database: People	<ol style="list-style-type: none">1. Maintains records of actors, directors, and other movie industry professionals.2. Includes biographical data, filmography, and professional milestones.
Filter	
IMDb Redirection	
Login Interface	
ntuaflx.sql	
People Info	
Search Controller	
Search Controller	
Session Management	Maintains user session state.
Title Info	
Title Rating	
User Interface	
User Interface	
User Intreface	
User Role Management	Checks user roles.

Artifacts

Name	Description
IMDb	
NTUAflxWebApp.war	Serves as the front-end user interface of the service. Built to deliver a responsive and intuitive user experience across various devices and platforms.
Web Browser	

Other Requirements

Appendices