CSE 3105/ CSE 3137

OBJECT ORIENTED ANALYSIS AND DESIGN

FALL 2020

COURSE PROJECT: *Media Player*

System Design Document

Group 25

Hüseyin Emre Uslu – 170316032

Mert Cantürk – 170316038

Ayşenur Büyükbal – 170316007

Umut Ulaş Gül – 180315057

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1   Introduction

In this project, we are expected to develop a "media browser application" that provides you displaying photos, playing music and video in many different file formats. System design have some issues like complex interface designing, low performance, consuming so much resources, unfunctional tools, etc. The system design of this project to achieve developing a media browser application that covers all those needs.

1.1   Purpose of the System

To be able to view files of different formats.

1.2   Design goals

Understandability;
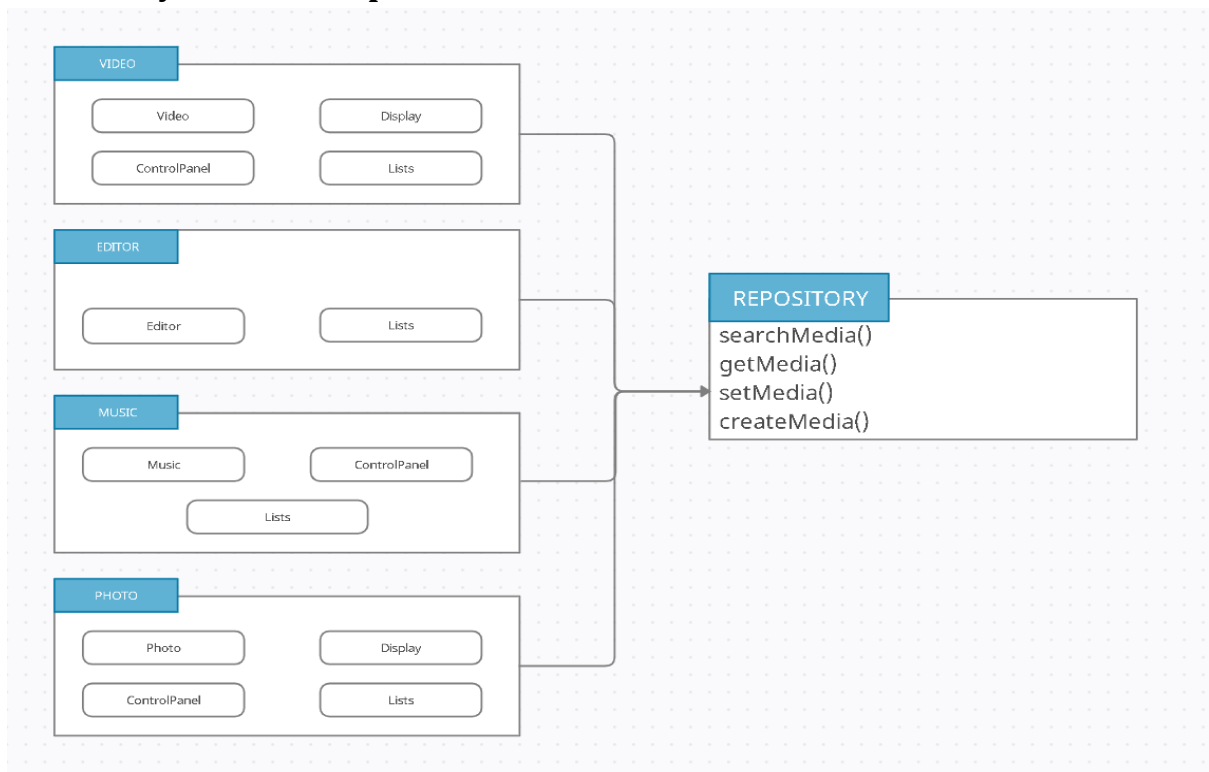
Adapdability;

Ease of use;

2   Current Software Architecture

Repository Architectural Style, the basic idea behind this architectural style is to support a collection of independent programs that work cooperatively on a common data structure called the repository

3   Proposed Software Architecture

The repository system architect did not need to make any modification because it is a suitable system architect for our system
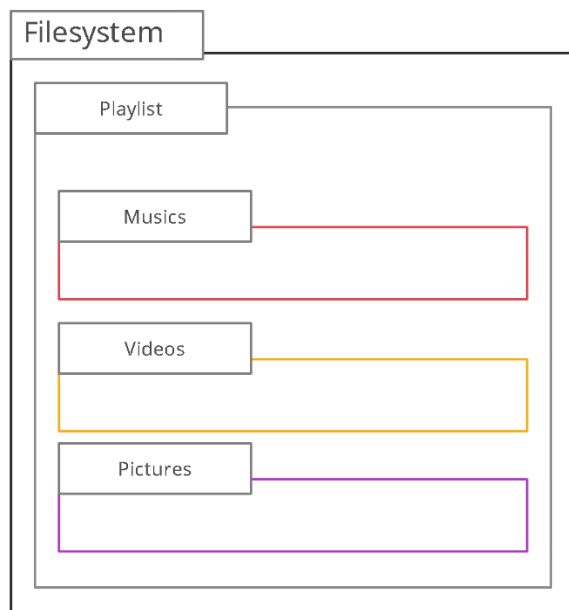
3.1   Subsystem decomposition

3.2   Hardware/software mapping
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3.3   Persistent data management
Used data management: Filesystem

3.4   Access control and security

The program works offline, there is no user hierarchy. A single user can easily access all tools. Since the program is offline and single user, it is not subject to any security measures.

3.5   Boundary conditions

• Initialization

It works when the user opens the application, or right-click on files in the appropriate format and open them with the "open with" method and when the user opens the application, the "Main" page appears. It opens with output devices.

• Termination

If the user presses the cross icon above the page, the application closes. When the application is closed, all user data except the last file of the user and the files saved in the playlist are deleted and application optimization is achieved.

• Failure

1) When the user opens a different format file on the application, it gives an error. A message is sent to the user on the new page and the file that is attempted to be opened is closed.
2) In order for the user to share files, the program needs to use the internet. It gives a connection error when there is no internet connection.
3) When the program is opened, at the location of the playlist files, when the user changes the filenames or deletes the file, the files may appear in the playlist, but the program cannot access them. In these cases, when the user tries to open the file, the error "file not found" is given and the page is updated.
4) When the live broadcast feature is turned on through the program, the program must be connected to the internet. However, this situation is related to the channels that are broadcast live, that is, the program is used to support live broadcasts. In case of internet connection problems that may occur during live broadcasts, the program gives an "internet connection" error.

4   Subsystem Services