**Functional Requirements:**

**Server End:**

It should have a simple database of following items;

Username, password, active/non-active, number of concurrent use, allowed playlists

This database can be a php file and variable can be assigned to each user, or an xml file where this data to be stored or any other format of your preference, which is easier to use for add, edit and delete. There can be a small form for addition, deletion or edit data from this database, or can also be edited from the database file(xml or php) itself.

Each user should have one username, one password, status of active or not, no of concurrent use allowed and various playlist either one or two or three or all whichever are available on our server.

My server files are located at [https://iptv.nywebforum.com/\*](https://iptv.nywebforum.com/%2A) and database file will also be present there.

Playlists are also available at this location. Current playlists are;

<https://iptv.nywebforum.com/playlist.m3u>

https://iptv.nywebforum.com/playlist\_allstock.m3u

https://iptv.nywebforum.com/playlist\_complete.m3u

<https://iptv.nywebforum.com/playlist_office.m3u>

or any other playlist which can be added later.

My program uses following two important php files.

<https://iptv.nywebforum.com/myportal.php>

<https://iptv.nywebforum.com/mac_list.php>

Right now these playlists are using my website for above php scripts running.

Now I want that my program should download allowed playlists(which will be converted for local playback) at its startup, and also download myportal.php and mac\_list.php at startup and run locally in PC without any further involvement of my server/website.

**User End:**

At user end, program to be opened like VLC, with a main window and a playlist. At first use, it should ask for the username and password, it both matches with data available in my database, then it should run and download the allowed playlists, myportal.php and mac\_list.php from server. Everytime, the program opens, it should download all these again. However, it should not ask for user name and password again for each use. It should be for first time only.

As we are restricting number of concurrent use of same user id and password, so it should check at startup, if the same username is being used at some other machine or other location. In this case, it should login at this machine but logout from other machine and give error message to that machine, that you are now logged on another machine. If you can give its ip/location/machine name or any other information to the user, it will be good.

**GUI of playlist:**

GUI of playlist will be the mixture of VLC playlist and Tivimate playlist. I mean VLC playlist window is ok but it do not show the EPG guide. I want same window but with EPG guide, similar to Tivimate or any other IPTV player which shows currently running programs according to current time and also show some future and past programs as well, with a vertical line.

EPG link is available in all playlist in first line like,

#EXTM3U url-tvg=”<https://iptv.nywebforum.com/epg>”

Where <https://iptv.nywebforum.com/epg> is epg link

This EPG file should also be loaded on every startup just after playlist (As it has to get EPG location from playlist)

**GUI of Main Window:**

Attached program is functionally ok. Now we have to improve its GUI. First we will work on main window (video playing window).

Main playing window can be just like VLC but with fewer required options only. At start, main window should cover 25% of total screen, covering top right quadrilateral.

It should have close, minimize and maximize button as of all windows. It should have function to get full screen when we double click in main window, just like VLC. When we double click during full screen, it should come back to normal screen. Full screen should be without borders. Esc button should return to non-full screen window

If we click single in main screen, it should show channel name on top left corner of window. Along with it, it should show clock on top right corner and in lower right corner show SD/HD/FHD/4K according to the picture resolution size and its FPS like 25/30/50/60 or whatever of the current picture. All this to be displayed for 10 secs (adjustable, give its option in menu)

Tivimate shows these information on screen, while in VLC, we have to press ctrl+J to get this information.

Playback buttons, next track button, previous track button, Loop button, volume bar and all other playback options can be just like VLC. You can just copy it. They should attached to bottom window during normal window and disappear on full screen but can be visible when click once during full screen. All buttons should have standard markings(icons) on it for playback, pause, next track etc.

In menu above, it should have option to change login details for user password. It should also have options to select playlist to run,(which are to be downloaded from our server according to the allowed list of playlists)

It should have also option to update playlist/EPG and server files(myportal/mac\_list) which should not be shown to user). But on clicking update playlist, it should download all other above files silently along with playlist.

In view menu, it should have option to toggle SD/HD information view, or FPS view or even clock view. It should also have toggle button to hide/show playlist.

When we close main window, program should be completely closed along with playlist. However, if we close playlist, main window should run regularly. Show minimize, maximize and close button in playlist window as well.

As we are making a very customized program, just to run only our playlists provided by server side, so no need to add any option for user to add his own playlist or any other thing in it unlike VLC player. User can just select the playlist to run, which are allowed by server database and downloaded from server.

A quit button to be added in menu, along with X button of windows. Playback options can be added as of VLC.

Fullscreen option should also be available in view, and with double click in main window. In full screen view, double click or. Non-Full screen window should be of flexible size (adjustable) as of other standard windows. Always on top function can also be added like VLC and give its option in View menu. No need of Tools and subtitles menu unlike VLC however all audio and video menus as much as possible.

In About, write following information;

Some Copyright 2025 information and to contact home13tvdevice@gmail.com for subscription and to report and resolve any technical issue. You may also add some standard terms if any.

I hope I clarified all of my requirements and hope that you have completely understood it and make a robust python program for me which will eventually run independently as standalone exe file in any PC running windows.

Before starting the programming, please discuss your understanding, plan and way forward. After our consensus, start making program. Do not start making program directly.

Questions by Deepseek

1. For the concurrency control:
	* Should there be a grace period when switching devices?
	* How frequently should the client check for concurrent usage?
2. For the stream quality indicators:
	* Should these be always-on or configurable to show/hide?
	* Any specific formatting preferences (font size, position, etc.)?

Answers to AI:

1. EPG display should be integrated in playlist view. Tivimate shows currently running program with two next hours, rest is scroll-able. Currently is showing programs starting from 11am(PST) till 1pm. In addition to this, whenever playback starts of a channel/stream, it should show its EPG in bottom just like Tivimate for 10 secs. This time is also adjustable. If you know the details, its best, otherwise i will share its screen shot 2. Give 5 mins time to switch and keep giving message on older login that a new device has been logged in and this will be disconnected in 5 min with a timer to run, may be in bottom right corner 3. stream quality indicators should have a toggle button/check in view menu to show/hide. By defualt, it should show for starting 10 secs then hide. This timing may also be adjustable in view menu. Its format to be like tivimate, with white background and reasonable size. If is found too small or too large, we can adjust in programming. i think we are very clear on our requirements and can start our programming. If we start with VLC-integrated player, i will put my server side php files and all playlist in local directory myself, which can be used until we start work on server side authentication and downloading system