libretto

Music Player

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ABOUT LIBRETTO

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Libretto is a music streaming program with access to any song on YouTube. With additional support for online podcasts and live radio, it's easy to find the right music or podcast for every moment. This full range of support allows for a wider variety of music, such as underground and indie.

For people on the go, Libretto also includes the ability to download your favorite playlists and podcasts, so you never have to miss the fun.
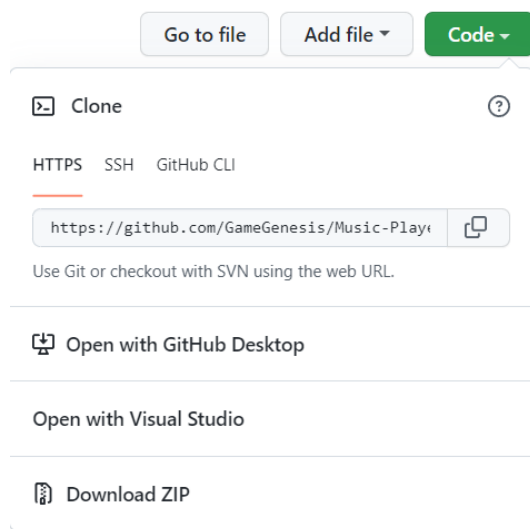
GETTING STARTED
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There is currently no installer for Libretto Music Player. You must clone the repository or download the source files in order to use the application. Also, this program has currently only been tested on Windows PCs, but might also be able to run on MacOS and Linux devices.

INSTALLATION
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Source Files

Go to the Github repository by following this link.

Click on the **Code** dropdown to see the options to clone or download the repository. Choose one of the following options and then proceed to the next step.

Important: Make sure you have a recent version of Python installed on your machine (Python v3.10 and up).

Dependencies

Using the terminal (cmd on Windows by default), install the project dependencies. This can be done manually or by installing all the dependencies using the provided `requirements.txt` file:

```
$ pip install -r requirements.txt
```

```
All dependencies are listed below
```

```
beautifulsoup4==4.10.0
lyricsgenius==3.0.1
moviepy==1.0.3
mutagen==1.45.1
pafy==0.5.5
Pillow==8.4.0
pygame==2.1.2
python-vlc==3.0.16120
pytube==12.1.0
-e
git+https://github.com/GameGenesis/pytube@d2f23ba1552299b671fb214134677dcfa5a3
4c9c#egg=pytube
requests==2.25.1
spotipy==2.19.0
SQLAlchemy==1.4.31
youtube-search-python==1.6.2
```

Additional Installations

An additional dependency that must also be installed is **VLC Player.** This can be installed by following the instructions on the page linked here.

Make sure that the correct VLC version – corresponding to your **Operating System** and your **Python Version** – is installed. This means that if your Python installation is 64-bit (which is the default for most), your VLC installation must also be 64-bit. It is paramount that the correct version is installed; otherwise the program will not function.

RUNNING THE PROGRAM

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Once the source files are on your machine and all dependencies have been installed, you are now ready to run the program.

To run the program, you must be in the main **Music-Player directory.** The program can be run in a variety of ways, but only two will be outlined below:

Running from the command line:
Open the command line program of your choice and navigate to the main Music-Player directory containing all the program files. This can be done by opening the command line from the file explorer or by using the `cd` command on Windows to navigate to the specific directory.

Next, run the `gui.py` file using python.

Example:
```
C:\Users\Username\Desktop> cd Music-Player
C:\Users\Username\Desktop\Music-Player> python src/gui/gui.py
```

Running from an IDE or code editor:
Open your IDE or code editor of choice and open the main Music-Player directory containing all the program files. Navigate to the `gui.py` file and run it.
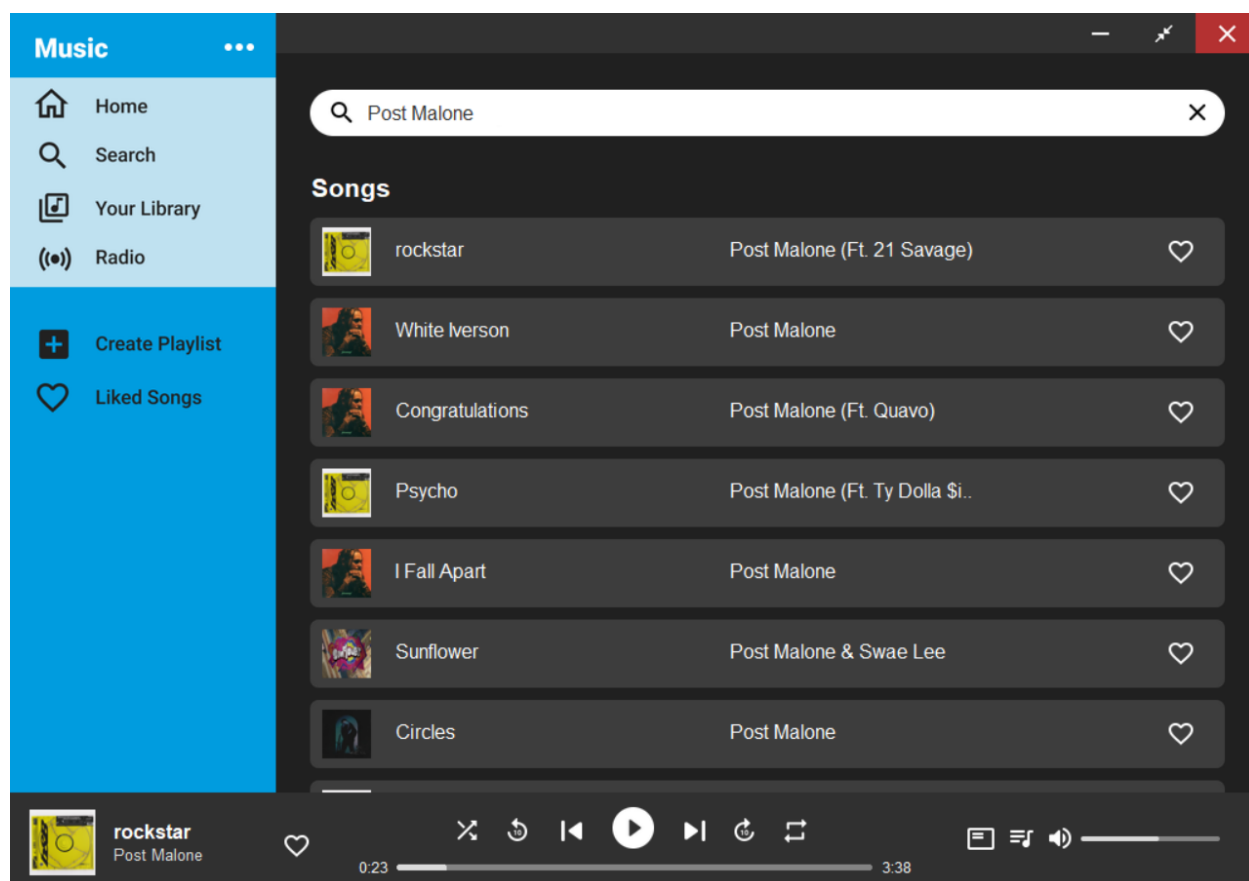
If everything was installed and run correctly, you should now have a working program!

SEARCHING FOR TRACKS

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Before you can play any tracks, you need to find some music. To start searching, click on the **Search button** in the menu bar on the left-hand side of the application.

This will open up the **search tab**, which will grant access to the **search bar**. From here, you can type either a **track title**, **artist name**, **album**, or even a **lyrics prompt**, and you will be greeted with track results that match your search.

Once you have chosen a track you like, you can easily **save** that track to your **"Liked Songs"** playlist by clicking the **heart button** next to the track name.
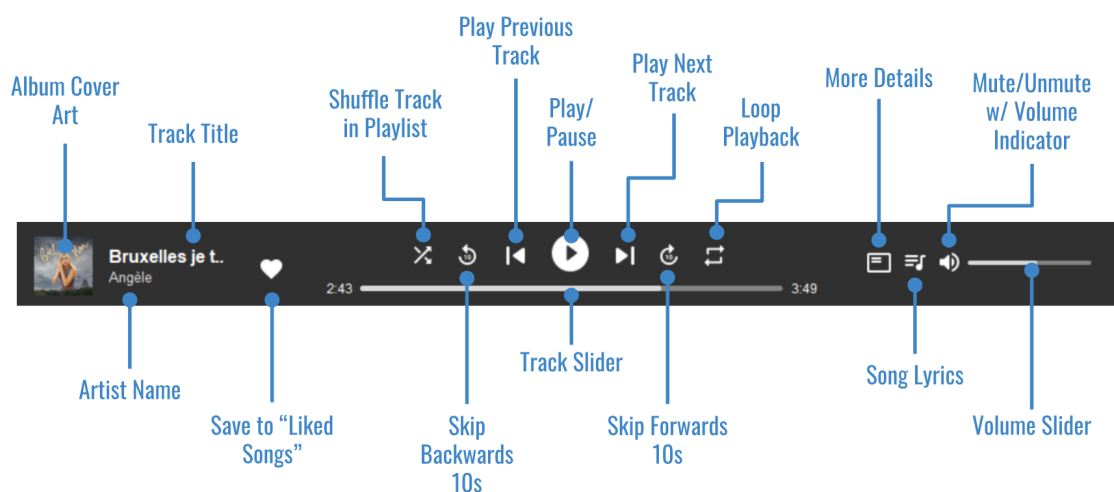
You can also choose to **remove** a song from the **"Liked Songs"** playlist by clicking the **heart button** again.

START PLAYING
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You can play a track from two locations: **search results** and **saved playlists**.

To play a track, it's as simple as clicking on the track button. This updates the bottom playback details and gives access to the **playback controls**.

When a track is playing, there are several playback details and controls available.

The **album cover art** can be seen on the far left followed by the **track title** and **artist name**.

Clicking the **heart button** either saves the track to the **"Liked Songs"** playlist or removes it from the playlist. This is indicated by the heart either being empty or full.

Next, there is the **track slider**, the **elapsed time text**, and the **total track duration text**. This allows you to preview the amount of time that has passed and the amount of time that is left for the current track playback.

Above that, there is the **enable shuffle button**, which randomly picks which track is played after the current one ends. Next is the **skip backwards button**, which allows you to skip backwards in playback by 10s. The **skip forwards button** allows you to skip forwards in playback by 10s.

The **play previous** and **play next** buttons skip playback to the previous or next track in the current playlist or queue.

The **play/pause button** pauses or unpauses playback.

Clicking on the **more details button** brings up a panel showing the current track details, and the **song lyrics button** brings up a lyrics view for songs that support that feature.

The **volume indicator** shows how high or low the volume is and can be clicked on to mute/unmute playback. The **volume slider** shares similar functionality and allows for more granular changes to volume.
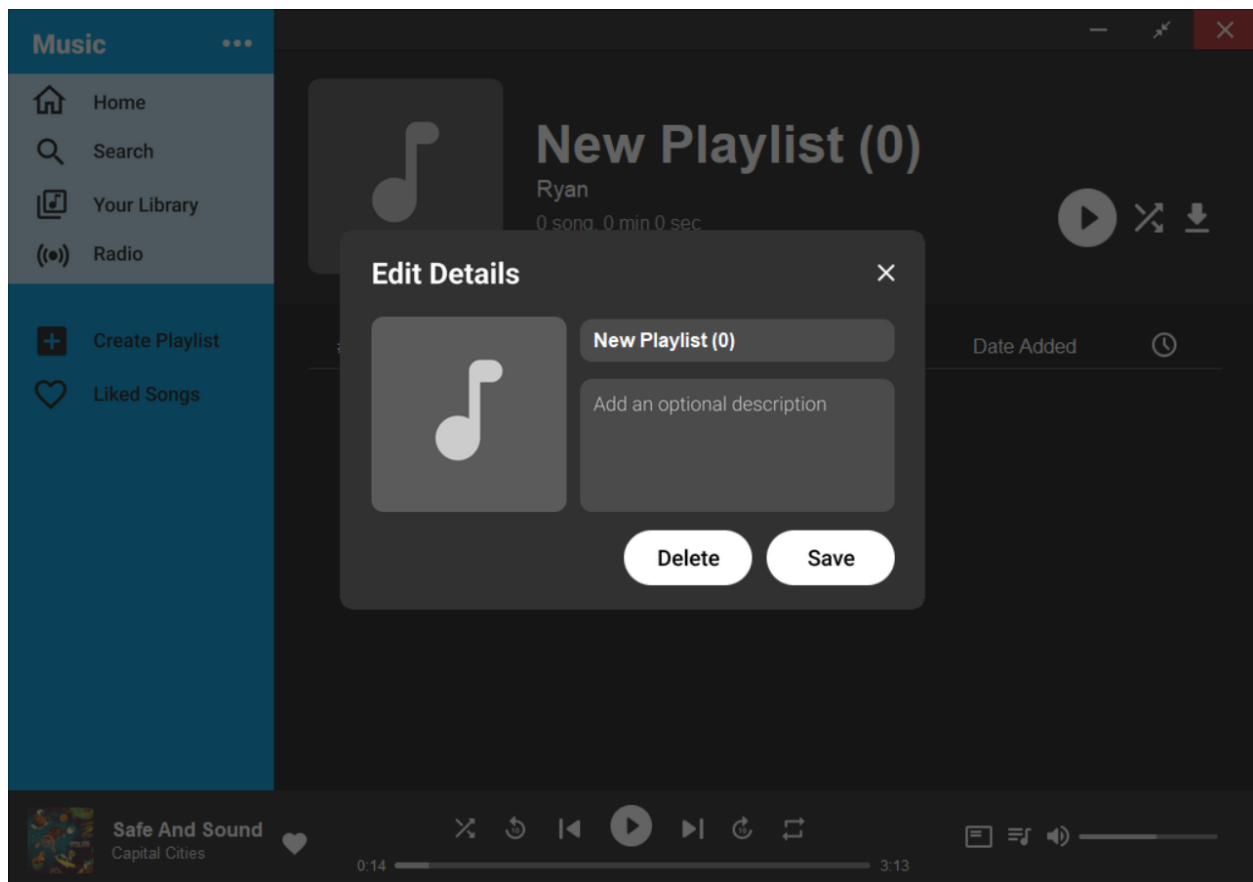
PLAYLISTS & YOUR LIBRARY
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Clicking on the **Your Library button** in the menu bar on the left-hand side of the application brings you to a list of playlists in your library.

If you haven't already created or added any playlists, you will only find the **"Liked Songs"** playlist, which contains a list of songs you have hearted.

To create a new playlist, click the **Create Playlist button** in the menu bar. This will take you to the playlist view, where you can rename the playlist and edit the description. This can be done by clicking on the **playlist title**. You can tell that a playlist can be edited by hovering over the name. If you see a pencil icon, the playlist can be edited.

Note: The **"Liked Songs"** playlist details cannot be edited.

This will bring up a popup window where you can change the playlist details. Update the details as you like and then click the **save button** to save your new changes.

If you want to **delete a playlist**, you do that in the same edit menu by clicking the **delete button**.

Note: Deleting a playlist is **permanent** and cannot be undone!

If you have tracks saved in the playlist, they can be viewed below the playlist details. They are sorted in order of when they were added. Information displayed for each track in the playlist includes the **order in the playlist**, the **track title**, the **artist name**, the **album**, the **date added**, and the **track duration**.

You can also see that the **number of songs** and the **duration of the playlist** is updated to match the contents of the playlist. This is displayed underneath the playlist title and author.

In the playlist details section in the header, there are also three buttons alongside the playlist information. From left to right, they are:

The **play/pause button** plays the tracks in the order they are listed in the playlist, starting from the first track.

The **shuffle play button** plays a random track from the playlist.

The **download playlist button** downloads the content of the playlist for offline listening.

FEATURES
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Playback Controls

Get access to playback controls and details with the playback controls bar at the bottom of the app.

Advanced Search

Search using the track title, artist name, album, or even a lyrics prompt.

Playlists

Organize your tracks into custom playlists. Create new playlists and edit existing ones.

Music Streaming

Full support for music and podcast streaming from YouTube.

Podcasts

Stream podcasts online from a variety of websites (including but not limited to: Google Podcasts, Apple Podcasts, and NYTimes Podcasts)

Radio

Listen to live online radio from a variety of news sources and radio channels.

Listen Offline

Download your playlists for offline playback. This includes music and podcasts.

Track Looping

Loop the current playing track indefinitely.

UPCOMING FEATURES

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Local files

Along with the countless number of tracks available to stream or download, you can also use Libretto to play any audio file on your device

Shuffle Play

Shuffle any playlist or queue to mix things up.

Play Queue

Queue podcasts or tracks to be played in a specific order.

Listening History

View what you've been listening to recently.

View lyrics

View a song's lyrics. **Note:** Lyrics may not be available on all songs.