

REPORT SP3 – Final exercises

I'm going to make a quick Report and guide for this final P3/S3 exercise.

All the exercises proposed are based on the GUI, created on tkinter.

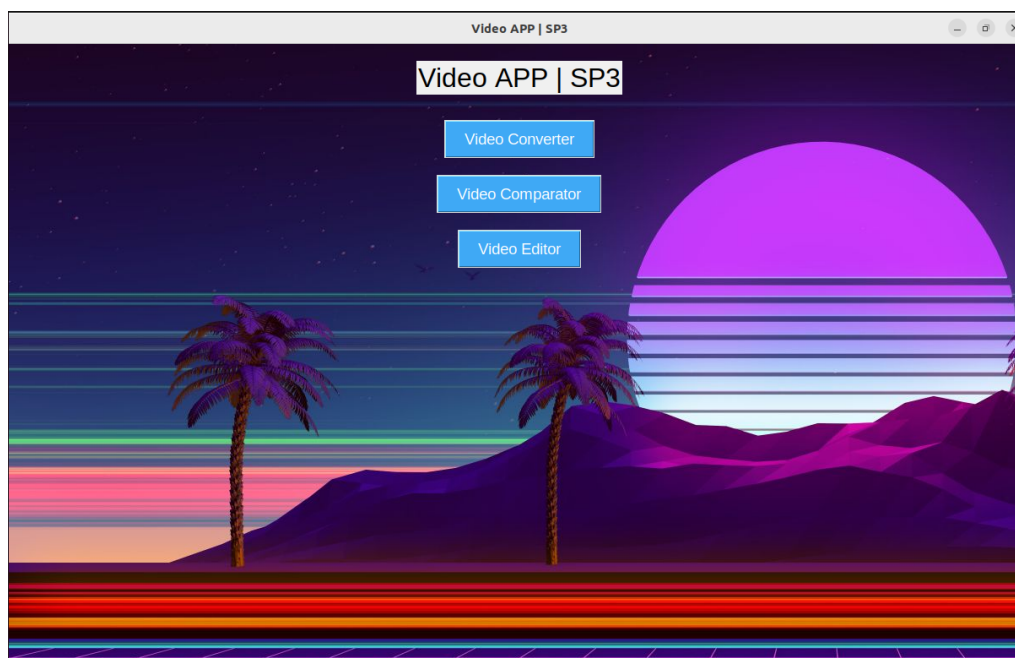
to install it you have to code on the terminal: `pip install tk` or `apt-get install python3-tk`

Once we have tkinter installer, we need to install the following libraries:

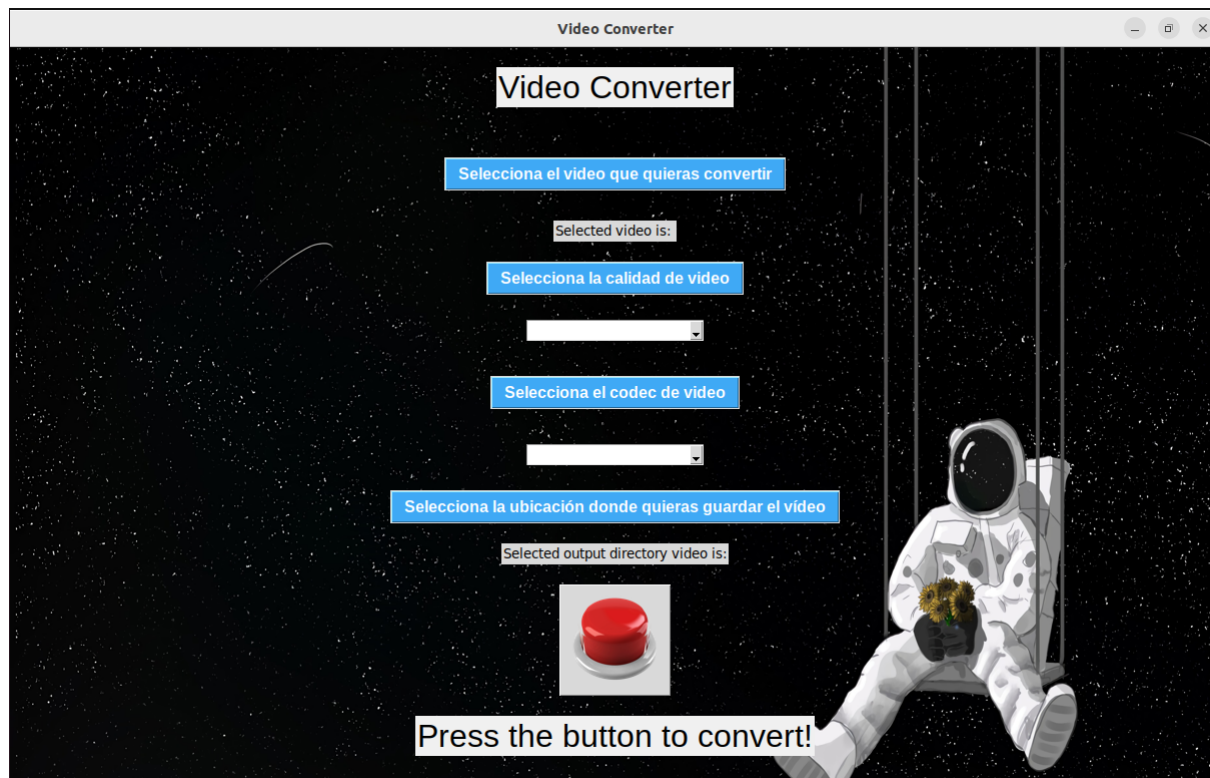
```
import tkinter as tk
from PIL import Image, ImageTk
import Functions
from tkinter import StringVar, filedialog
from tkinter import ttk # Importar ttk para el Combobox
import easygui
from moviepy.editor import VideoFileClip, clips_array
```

I have created two scripts. The main one, which has all the code for the GUI part, and the Functions.py, which have all the functions applied in the main to be more organized.

What we can see first, is the main screen, which can we select from various options, Video converter, video comparator, and video editor

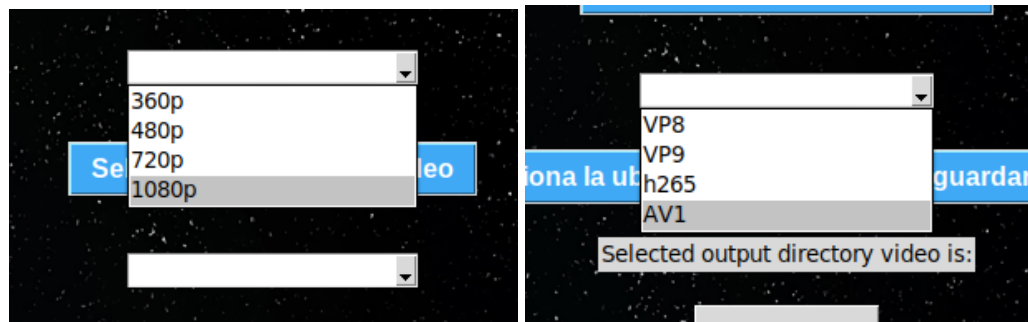


If we press the button of the Video converter, a new window will appear.



We can see that we have so many options to select.

The main purpose of this application is that the user can select a video, select a quality and a codec, and will output the resulting video, pressing the red button. We have the following qualities and codecs:



In the output directory, we have to put a name + mp4 for the code to work. One full example is like this.

The image shows a graphical user interface for a video converter application. The background is a dark, starry space with a white robotic arm on the right side. The interface consists of several blue buttons with white text, text input fields, and a large red button. The text is in Spanish. The first button says 'Selecciona el video que quieras convertir'. Below it, a text field contains the path '/home/ubuntu1/PycharmProjects/S2/BBB.mp4'. The next button says 'Selecciona la calidad de video', followed by a dropdown menu showing '1080p'. The next button says 'Selecciona el codec de video', followed by a dropdown menu showing 'h265'. The next button says 'Selecciona la ubicación donde quieras guardar el vídeo'. Below it, a text field contains the path '/home/ubuntu1/Documentos/JaviPonmeUn10.mp4'. At the bottom, there is a large red button with a white circular base. Below the button, the text 'Press the button to convert!' is displayed in a white box.

Video Converter

Selecciona el video que quieras convertir

Selected video is: /home/ubuntu1/PycharmProjects/S2/BBB.mp4

Selecciona la calidad de video

1080p

Selecciona el codec de video

h265

Selecciona la ubicación donde quieras guardar el vídeo

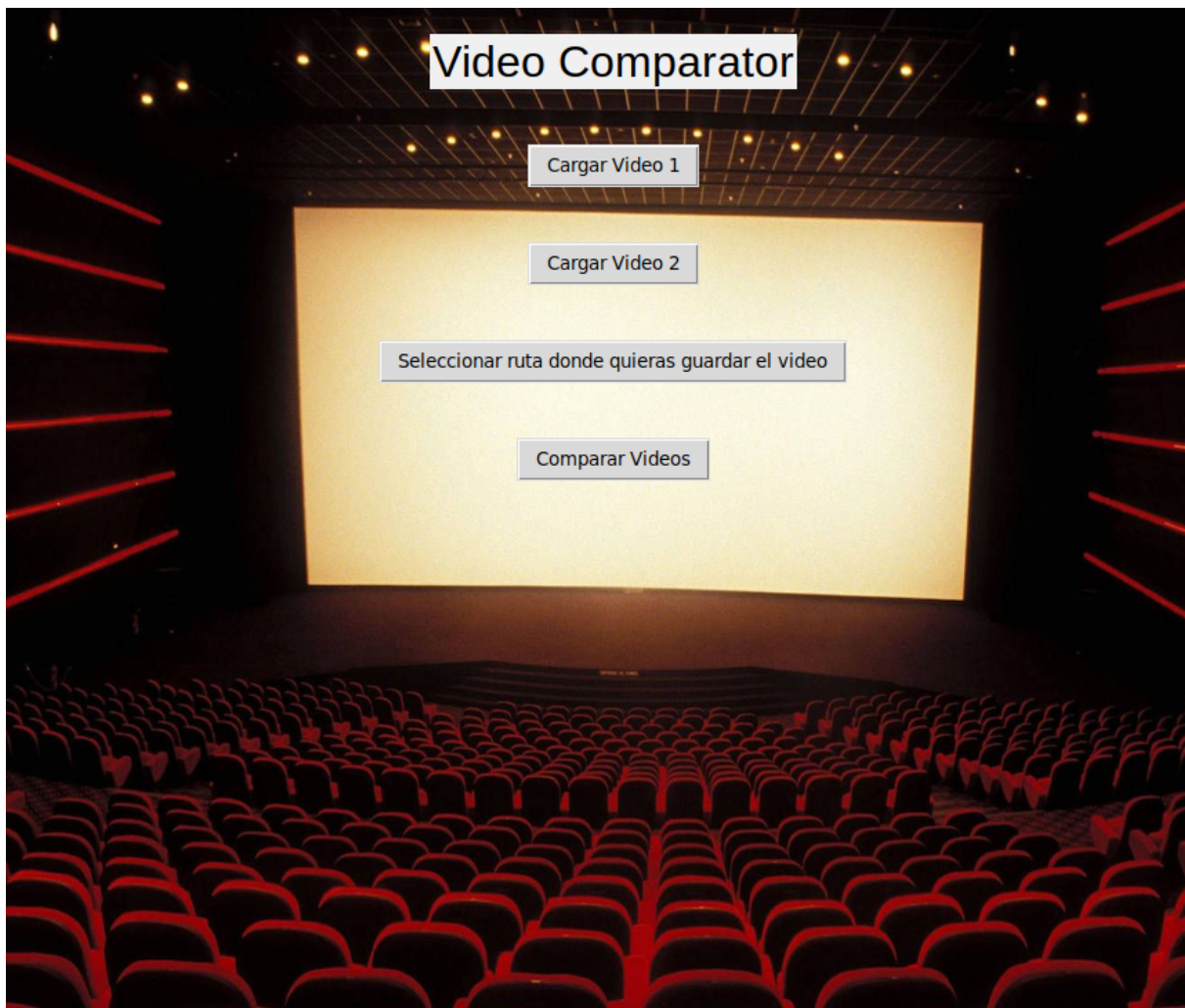
Selected output directory video is: /home/ubuntu1/Documentos/JaviPonmeUn10.mp4



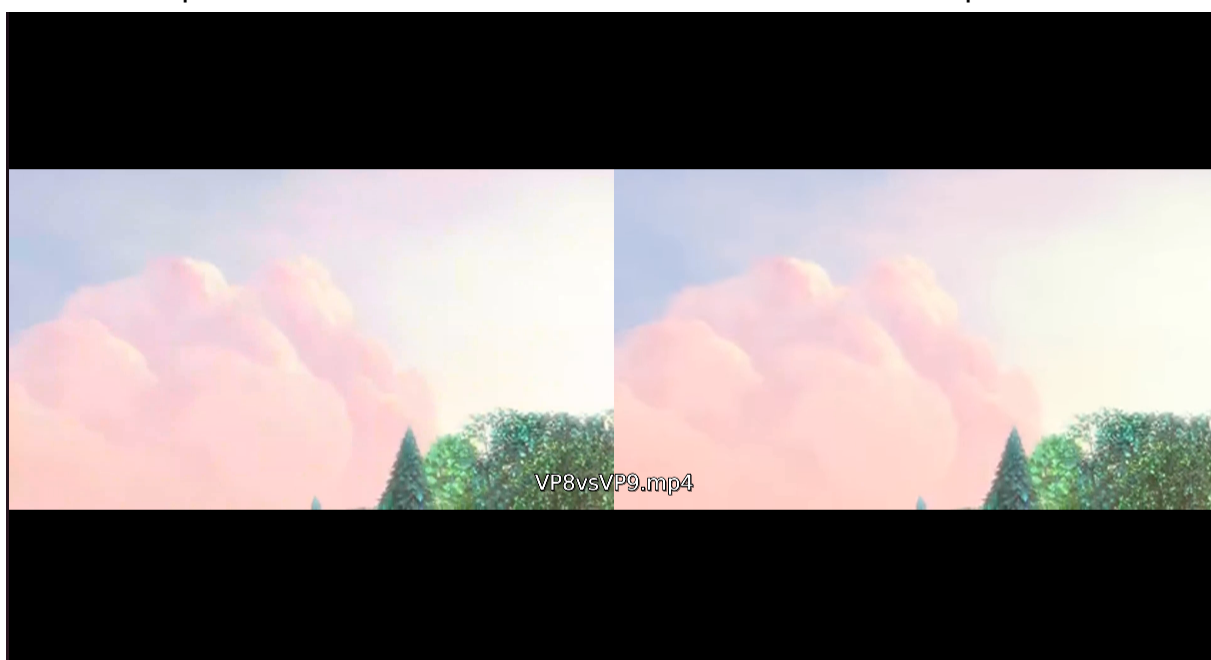
Press the button to convert!

The second screen refers to task 2. The main purpose of the Video Comparator screen is to use the first screen to create videos with different qualities and codecs, and then compare it with this video Comparator menú.

This screen will ask you to load two videos, to decide the output directory, and then pressing the button compare will generate an output video with the two selected videos on the same screen.



For an example case we have selected VP8 and VP9 videos to compare the results.



I can not see the difference between both videos, but I searched on the Internet and said that it depends on your requirements what to choose. If you are looking for video quality, you can choose VP8 codec to download. And to save storage space, you can choose the VP9 option.

There is also a third option screen called Video Editor. The main idea was to, as the name says, create a video editor, able to trim and cut the video to the user's liking, raise and lower the volume among other things.

I haven't been able to do it because I haven't had any time since we are very busy, but hey, if there is support we will continue developing the app

