Assignment 1: Tool for navigating 360° images.
Deadline: 05/04/2024

The goal of the assignment is to create a tool to navigate images captured by 360° cameras (equirectangular images).

You are free to decide whether to also implement a user interface (it is not the focus of the task).
You are free to extend the implementation to video browsing.

The input to your method is an image (or video) captured by a 360° camera.
The user of the tool must input an initial view expressed as latitude and longitude (in degrees). It can also provide a field of view expressed in degrees (default is 60°).
The tool must show the rectified image obtained by projecting the spherical image onto a plane tangential to the sphere in the initial view.
The user can navigate the image by changing the initial view (for example, by pressing the left/right/up/down arrow keys the view changes of a preset discrete number of degrees).

Additionally, you may try to implement a digital zoom to focus on near or far objects (this is not mandatory, but it would be cool!).

Important: To implement the tool, you can only use your own code (don't use libraries that magically do the projection for you!!)
The tool must work independently of the size of the image/frame (I suggest testing it with images of different size)

The assignment must be developed **in a group** and sent as **a zip file** (also including all the data used to develop and test the method) via email by April 05, 2024.
The zip file must include **a short report** (i.e., half page) describing how the work was developed and how the students in the group divided the work and collaborated.