Through times, many 3D model formats have been used. Each one responded to a problem, such as what data is embedded in the model, the weight, its compression, compatibility, copyrights, etc.

That is why, today, we have access to hundreds of model formats: <https://en.wikipedia.org/wiki/List_of_file_formats#3D_graphics>.

Some formats are dedicated to one software. Some are known to be very light but sometimes lack specific data. Some are known to have almost all data you could need in them but are heavy. Some formats are open source, some formats are not, some are binary, some are ASCII, and it goes on and on.

If you need precise data and can't find the adequate format supported by your software, you can even create your own quite easily.

Here's a list of popular formats you might come across:

* OBJ
* FBX
* STL
* PLY
* COLLADA
* 3DS
* GLTF

We won't cover all of these formats. It would be boring, and we don't need to because one format is becoming a standard and should cover most of your needs.

GLTF stands for GL Transmission Format. It's made by the Khronos Group (the guys behind OpenGL, WebGL, Vulkan, Collada and with many members like AMD / ATI, Nvidia, Apple, id Software, Google, Nintendo, etc.)

GLTF has become very popular these past few years.

It supports very different sets of data. You can obviously have data like the geometries and the materials but you can also have data like cameras, lights, scene graph, animations, skeletons, morphing and even multiple scene.

It also supports various file formats like json, binary, embed textures.

GLTF has become the standard when it comes to real-time. And because it's becoming a standard, most 3D softwares, game engines, and libraries support it. That means that you can easily have a similar result in different environments.

That doesn't mean that you have to use GLTF in all cases. If you merely need a geometry, you better use another format like OBJ, FBX, STL, or PLY. You should test different formats on every project to see if you have all the data you need, if the file isn't too heavy, how long it takes to uncompress the information if it's compressed, etc.

First, we need a model. As we said earlier, we will learn how to create our own model in a 3D software later, but for now, let's use a pre-made one.

The GLTF team also provides various models from a simple triangle to realistic models and things like animations, morphings, clearcoat materials, etc.

You can find them in this repository: <https://github.com/KhronosGroup/glTF-Sample-Models>

If you want to test those models, you'll have to download or clone the whole repository and take the files you need. But we will start with a simple [duck](https://github.com/KhronosGroup/glTF-Sample-Models/tree/master/2.0/Duck) that you can already find in the **/static/models/** folder in the starter.

Draco loader stuff is difficult