FINAL PROJECT PROPOSAL

A GRAPHIC REPRESENTATION OF *COVID-19* DATA

Computer Graphics. Course 2019/2020

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1. Introduction

The world is currently in a critical situation due to the problems caused by the expansion of *COVID-19*. On this basis, a correct visualization of the data when making decisions, informing the population or taking stock of the progress of the pandemic may be of special relevance nowadays.

At the same time, there are multiple sources of information on the Internet that gather data on the progress of the pandemic with respect to the total number of cases, deaths and recoveries. A highly reliable example is https://www.worldometers.info/coronavirus/#countries, where such information is perfectly summarized for every country around the world.

2. Objective

The objective of the project to be developed will be the development of a program capable of producing 3D bar charts that provide information on *COVID-19* in three dimensions:

- **Total number of cases**
- **Deaths**
- **Recoveries**

The input data received will come from a *.csv* file following the format shown in *Figure 1*. After the processing of the data by the program, an *.obj* file will be generated with the graphic representation of these data, as shown in *Figure 2* as an example.

	TOTAL CASES	TOTAL DEATHS	TOTAL RECOVERED
Spain	184,948	19,315	74,797
France	165,027	17,92	32,812
Italy	168,941	22,17	40,164
USA	678,21	34,641	57,844
Germany	138,135	4,093	81,8
China	82,692	4,632	77,944

Figure 1: Sample CSV input file

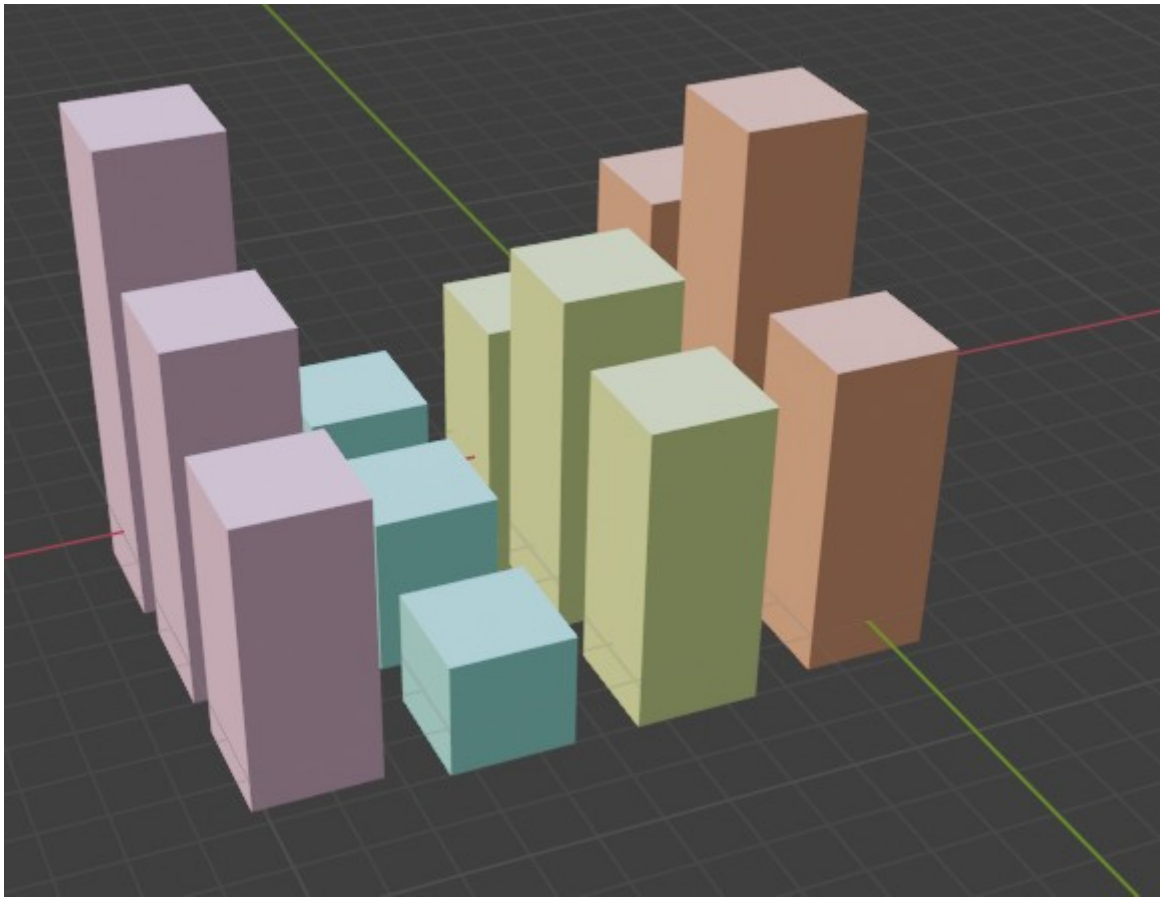

Figure 2: 3D Barplot generated as output OBJ file

3. Program execution

The execution of the program will be carried out by command line following the syntax below:

```
$ 3Dbarplot <input.csv> <output.obj>
```

A correct check of input and file format errors will also be implemented.