Project Assignment 1

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**User Guide:**

The project that will cover is a graphical implementation with WebGL. It consists of a two-dimensional game. The game starts with a white circle centred at the origin, and the user should expect some bacterias to grow on the circumference of the circle. The game without added features consists in not letting the bacterias grow over a threshold. The threshold is defined by a 30-degree angle of the central disk. The radius of the bacteria defines the threshold in the program, so it will be calculated by using a 15-degree angle. To poison a bacteria, the user will need to click on top of the growing bacteria. All the bacterias will have a unique colour to differentiate between different cultures.

Furthermore, the implementation of this 2D game, will have two additions. The first, once the user clicks and successfully poison a bacteria, the poison will start to propagate at the same rate to all directions. The poison propagation origin will be in the location where the click poisoned a bacteria. The propagation will be seen as a 50% transparent baby blue circle. If the poison propagation touches another bacteria, then it will kill another bacteria. The second addition is when bacteria cultures collide. Similar to natural selection, we will assume that the first bacteria to appear will be stronger. If two bacterias collide, the stronger will kill the other bacteria culture. In short, the user should not let 2 or more bacterias reach the culture and he/she can take advantage of the two additions implemented.