Uniform Vectorization

This lesson discusses uniform vectorization and introduces the next case study that we are going to look at, i.e, Game of life.

WE'LL COVER THE FOLLOWING

What is Uniform Vectorization?

> *Uniform vectorization* is the simplest form of vectorization where all the elements share the same computation at every time step with no specific processing for any element.

One stereotypical case is the **Game of Life** that has been invented by John Conway and is one of the earliest examples of cellular automata(see below). Those cellular automata can be conveniently regarded as an array of cells that are connected together with the notion of neighbors and their vectorization is straightforward.

Let me first define the game and we'll see how to vectorize it!

Conus textile snail exhibits a cellular automaton pattern on its shell. Image by Richard Ling (https://commons.wikimedia.org/wiki/File:Textile_cone.JPG), 2005.

Now, that you know what is uniform vectorization, let’s move on to the implementation of Game of life using Python approach.