

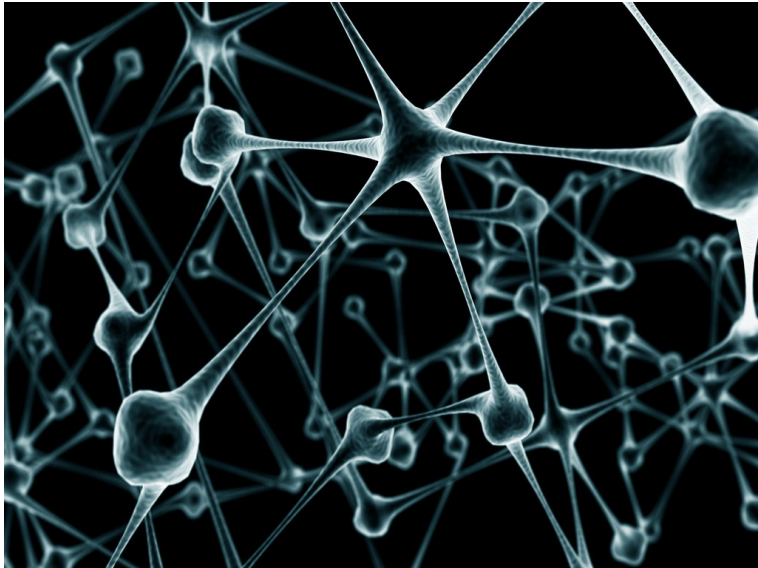
# Artificial Intelligence Course Project

by

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under Dr. Amit Mukerjee

Emergence



**“Emergence is the way complex systems and patterns arise out of a multiplicity of relatively simple interactions.”**

**- Wikipedia**

# Conway's Game of Life

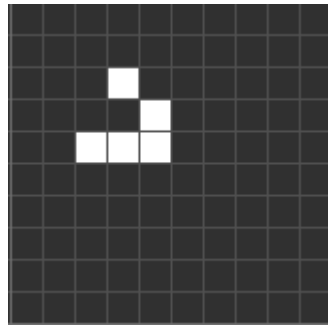
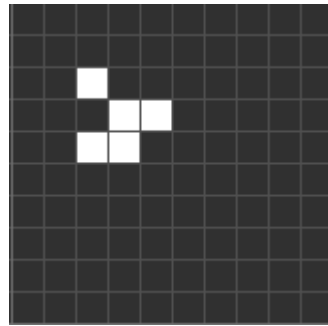
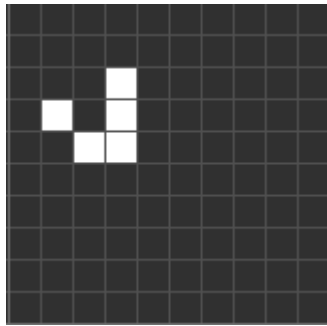
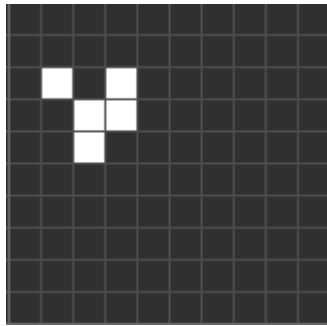
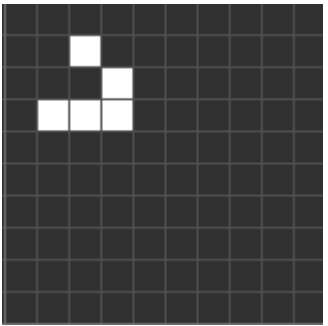
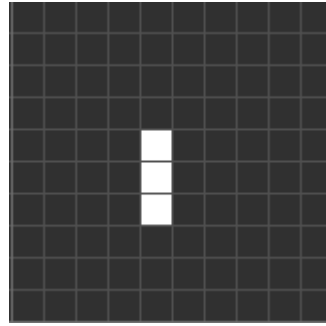
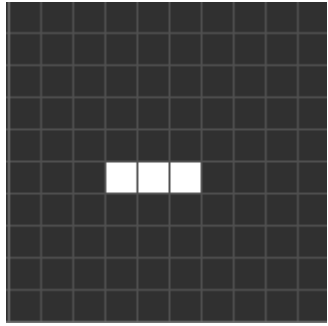
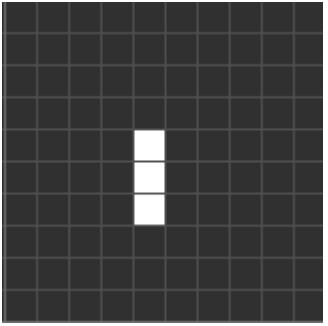
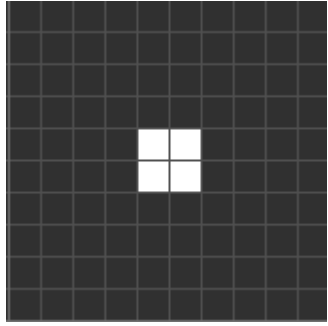
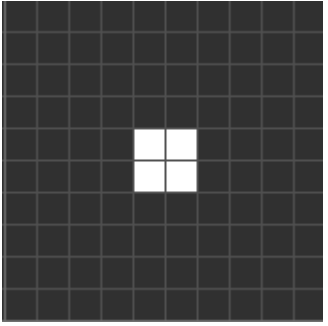
An infinite grid consisting of cells, which can either be “alive”, or “dead”.

A live cell with 2 or 3 alive neighbours remains alive in the next generation.

A dead cell with 3 neighbours becomes alive in the next generation.

A cell becomes/remains dead in all cases.

# Some Patterns in Life



# Problem Statement

We want to detect interesting/periodic patterns while looking at a run.

Although the field is much old, the work done on this topic is very less.

A new algorithm is implemented by us to detect these patterns.