

Modeling and Simulation(CS302) project

Simple Land Battle using agent based modelling

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The program is written for simulating the cellular automata of the battle between Avengers and Thanos army.

Steps involved in running the code:

1. Open any compiler to run the code. This could be Visual studio code in Windows or terminal in Linux.
2. Run battle.py file by using the command : “python battle.py”(excluding “”).
3. The user is asked the initial values of the parameters to determine the final state of the observation. These include size of the grid, initial attacking and defensive density, and the strategy to be followed. (Example input : $N=50000$, $\rho_a=0.45$, $\rho_b=0.2$, strategy=A)
4. Parameters that can affect the final states are: Search range (R), the density of attackers and defenders, initial reserves of both the armies. User can change any parameters in code to observe the final states of the model .