Assessment 2 – Planning for drunks

This assessment is an agent based model (ABM) which aims to show where drunks walk when leaving a pub and trying to get home.

The file used for this project is a single 300x300 raster file which contains a point for the pub and points for each drunks home.

The first necessary step was to convert the raster file into a 2D list, which then made it possible to loop through each row individually, meaning it was possible to identify which row had the values of interest in, such as the pub, which was denoted by ones. Once the appropriate row and value were found, it was then possible to create a variable for the pub based on the appropriate row and values. This technique however to loop through the 2D list to find the values of interest was time consuming and not very efficient, as the values of interest, such as the 1’s were present in more than just one row. It is likely that there is a more time efficient way to do this, however I was uncertain how to do it.

Once the pub had been identified it was necessary to create a blank drunk list and create a loop appending each drunk to the pub value as a starting position for each drunk.

This issue also meant identifying each drunks house was also very time consuming.