There are going to be 2 different lists, that all employees have access to. The first of these is the customers list, which will hold every customer, as well as if that customer has been served. The other list will have a food item, and a reference to the customer that ordered it.

A picture containing text

Description automatically generated

The behaviour of the employees will be split into 3 sections. The highest priority is attending to customers that haven’t ordered yet.

When a customer walks into the restaurant, they choose a place. There will be a list for the customers of all possible seats, and if they’re currently available. An available place will be chosen at random, and they will go to that seat. When they arrive, they will be added to the customers list, and marked as not served.

When an employee is looking for a task to complete, the first thing they’ll do is check this list to see if there is a customer that needs serving. If there is, they will move to them, and serve them.

The second section of the tree is making the food and taking it to the corresponding customer. The employee will try to take the first order in the list, making a copy of it in its own list, then removing it from the shared one. As only a few employees can make an item at the same time, if there are no spaces at the crafting station for the first order, the employee will check the second, and so on. If none are available, they move onto the third section.

The third section is sleeping until another task becomes available. In this state, the employee will stand in place displaying an animation until they can do something else.