**aMAZE Development Notes**

**Data Model**

**Classes**

Maze

Room

Wall

DisjointSet

**Design decision: where should the neighbours of a room be created? Should the Room class have a list of neighbours?**

The creation of the neighbours occurs because these rooms are placed in a maze. So the generation of these neighbours should happen in the Maze class along with the generation of the rooms. We will choose not to give the room class a list of neighbours but instead store the neighbours for each room in a hashmap in the maze class so we are not required to update a neighbour list field in two places

The complication with the above implementation will arise when we need to first create all the rooms and then assign the neighbours. We can either create a neighbour list for each room as the rooms are being created – in this case we will be creating a single room object twice – once when the room is created as a standalone and a second time when it is created in order to add it as a neighbour. For such an implementation we need to override equals.

The second way to do this would be to first create all the rooms and then iterate through each room and assign it its neighbours. We should still override equals in this case as we will look for the room object that needs to be added to the neighbourlist.