# Assumption for Eltel project

1. If one of the entity's the data in the JSON in invalid it's not been read to populate.
2. Invalid data is:

* Null.
* negative number.
* number that bigger then 100.
* size the is different than small, medium, large.
* shape that is deferent then circle, square, triangle.
* color that is deferent then red, green, blue.

1. max of entity's that can be display is 10, so if we have more then 10 entity's the first 10 entity's will be display on the screen, the rest will be remove.
2. Size map:

* Small 5px.
* Medium 10 px
* Large 15 px

1. the grid is 100\*100, if there is a shape the coordinates are in the limit, but it size exceed the boundaries, this shape will not be display.

example: (95.0) and size is large then it will not be displayed.

1. The random method work that the last coordinates will not repeat itself,
2. But if the new coordinates going to be out of bound , it will stay as his place and wait to the next cycle to move , and then the entity can move all directions , including to place that he was before .

# Open Questions

1. I will create an array list that have n entity's, for each array I will create an array list with PointInfo Object, for each movement (5 seconds) I will add a position of the entity.
2. First, I need to validate the data , then create an 3D cube that will hold all the entity's, then add to add all the methods that I have that paint the new point the new coordinates , for out of boundary I need to add a new condition to check that the shape will not go out side the cube, add the Z coordinates to Entity, PaintInfo and PointInfo.