# Log Book

25/10/2018

Worked on data structure to store information about building layouts.

* Created “Wall” class
* Created “Building” class

Encountered issues with using JavaFX to display the GUI for the desktop application- the JDK is not set up correctly to work with JavaFX. In version 11 of the JDK JavaFX has been moved outside of the code Java libraries.

26/10/2018

Continued to look into the issue with JavaFX.

Investigating using Maven to manage dependencies.

28/10/2018

Figured out how to use JavaFX version 11 with version 11 of the JDK.

Updated the project to use Maven, and applied the fix for JavaFX to the project:

* Add JavaFX as a dependency to Maven pom.xml
* Edit the way IntelliJ builds the project to make sure it compiles the pom.xml- otherwise it will cannot find the correct runtime

Video on setting up Maven and JavaFX: <https://www.youtube.com/watch?v=r_tdK8zWr_w>

IntelliJ Java Version Setup: [https://stackoverflow.com/questions/21006136/intellij-idea-13-uses-java-1-5-despite-setting-to-1-7#](https://stackoverflow.com/questions/21006136/intellij-idea-13-uses-java-1-5-despite-setting-to-1-7)

JavaFX Scene Graph: <https://docs.oracle.com/javafx/2/scenegraph/jfxpub-scenegraph.htm>

29/10/2018

Created a product backlog. Added user stories for the prototype to the backlog.

30/10/2018

Researched using a BorderPane for the layout of the GUI.

<https://examples.javacodegeeks.com/desktop-java/javafx/javafx-borderpane-example/>

<https://docs.oracle.com/javafx/2/layout/builtin_layouts.htm>

<https://docs.oracle.com/javase/8/javafx/api/javafx/scene/Scene.html>

Worked on rendering the layout of the building to the screen:

* Created a Canvas and a Graphics Context which can be used to draw to the canvas.
* Created a static method on the Building class that creates mock building layout for testing and prototyping purposes.

01/11/2018

Created an AnimationTimer which allows the application to display moving images.

Fixed an issue where the animation was very slow, and became slower the longer the application was open; the problem was that the method drawWalls() contained a memory leak and would continue to add the same data to the data structure over and over, rather than clear it in between method calls. The fix was to use beginPath() on the graphics context to clear the data structure.

02/11/2018

Created an array to store information about the positions of the people, and a mock testing method which will allow the GUI to be tested that it is reading the data structure properly. Wrote a method to draw the locations of the people to the GUI; this will be extended in the future. Currently I am planning the next steps to be:

1. Add a schedule to people that they will follow, now that they can be observed on the GUI
2. Write unit tests using Junit for the current code that I have, to check that the methods return what is expected in a variety of test cases.