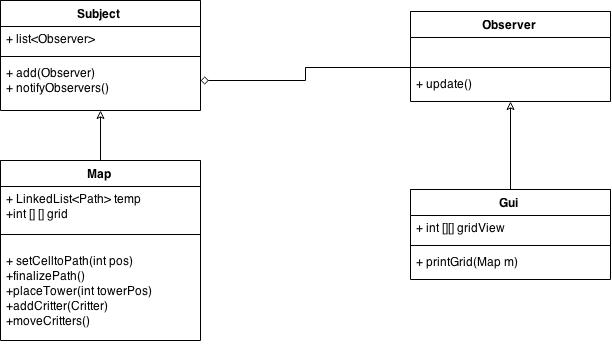
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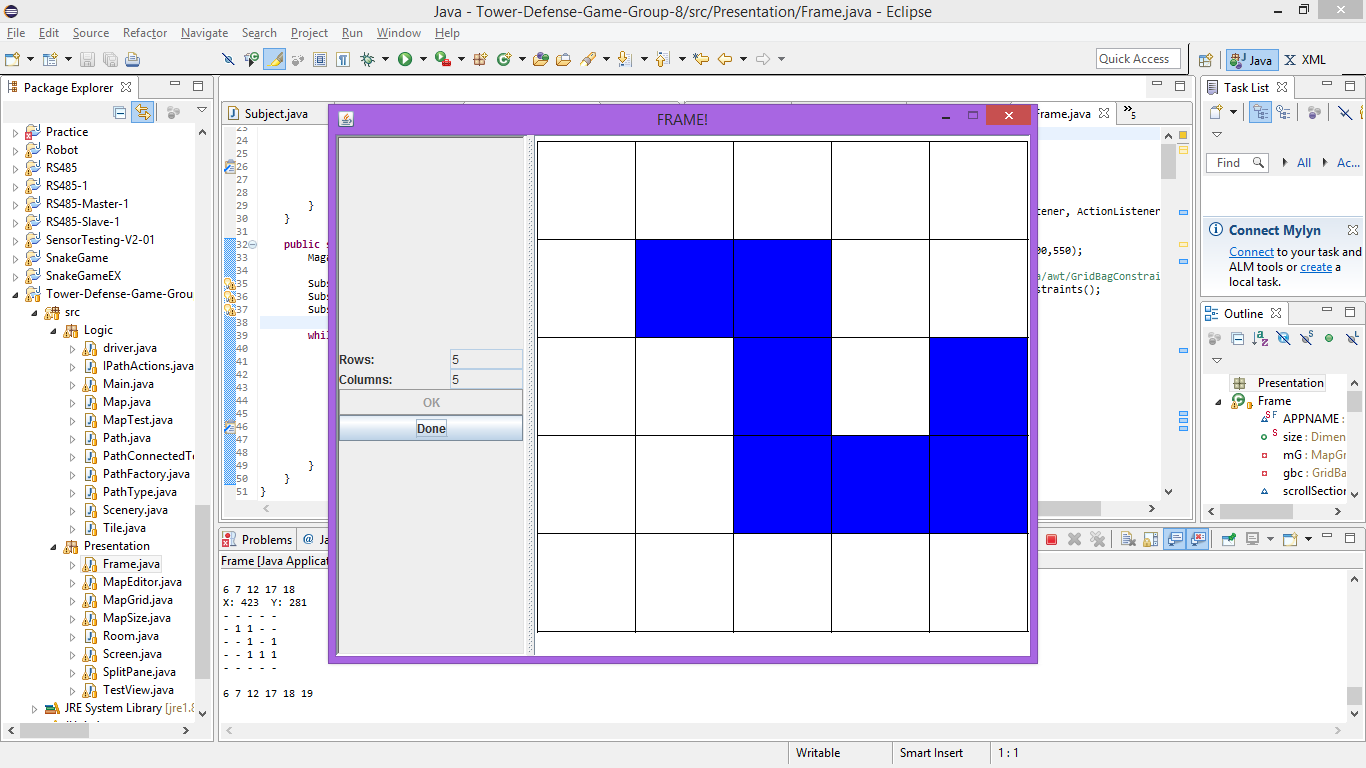
ECSE 321 – Assignment 2 Explanation



The above UML diagram shows the observer class and how it has been used for this assignment. The subject is the Map which has a list of all the observers. The methods are explained below:

* setCelltoPath(int pos): add a path to the Map
* finalizePath(): add the last piece to the Map
* placeTower(int towerPos): position to place the tower
* addCritter(Critter): adds a critter to the current map.
* MoveCritters(): Moves all the critters in the Map.

The Gui has a method called print which prints all the changes in the Map as a grid and prints all the moves of the critters.



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All the position of each map item is with respect to the above table.

The Grid Legend is:

* 1: Path
* 2: Tower
* 0: Scenery

This is to place the path(6, 7, 12, 17, 18, 19) . The grid should incrementally output this:

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- 1 - - -

- - - - -

- - - - -

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- 1 1 - -

- - - - -

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- 1 1 - -

- - 1 - -

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- 1 1 - -

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- 1 1 - -

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- 1 1 - -

- - 1 - -

- - 1 1 1

- - - - -

This is the finalized Map:

0 0 0 0 0

0 1 1 0 0

0 0 1 0 0

0 0 1 1 1

0 0 0 0 0

Placing the Towers:

0 0 0 0 0

0 1 1 0 0

2 0 1 0 0

0 0 1 1 1

0 0 0 0 0

0 0 0 0 0

0 1 1 0 0

2 0 1 0 0

0 0 1 1 1

2 0 0 0 0

0 0 0 0 0

0 1 1 0 0

2 0 1 0 0

2 0 1 1 1

2 0 0 0 0

0 0 0 0 0

0 1 1 0 2

2 0 1 0 0

2 0 1 1 1

2 0 0 0 0

The next lines which are printed are the moves of the critters. The text will display the ID of the critter and the position in the map. Also, randomly critters are added and it doesn’t end until all critters have reached the end. An example is below:

Critter 0 is on position 6

Critter 0 is on position 7

Critter 0 is on position 12

Critter 0 is on position 17

Critter 0 is on position 18

Critter 1 is on position 6

Critter 0 is on position 19

Critter 0 has been removed

Critter 1 is on position 7

Critter 2 is on position 6

Critter 1 is on position 12

Critter 2 is on position 7

Critter 1 is on position 17

Critter 2 is on position 12

Critter 1 is on position 18

Critter 2 is on position 17

Critter 3 is on position 6

Critter 1 is on position 19

Critter 1 has been removed

Critter 2 is on position 18

Critter 3 is on position 7

Critter 2 is on position 19

Critter 2 has been removed

Critter 3 is on position 12

Critter 4 is on position 6

Critter 3 is on position 17

Critter 4 is on position 7

Critter 3 is on position 18

Critter 4 is on position 12

Critter 3 is on position 19

Critter 3 has been removed

Critter 4 is on position 17

Critter 4 is on position 18

Critter 4 is on position 19

Critter 4 has been removed