Requirements:

Map:

* grid of size n x m
* 1 entry, 1 exit points
* Tiles are either part of the path or the scenery
* Structures can only be placed over scenery; critters can only move over path.

Map Editor:

* Map size
* Entry/exit points
* Path arrangement
* Save/load maps

Game:

* Main Menu: play, mapeditor, exit;
* User can select map to play on
* Currency
* Build/defense stages are separate; user specifies when he is ready for critter wave

Classes:

1. Main class - set up game components and run the game
2. Structure – extendable or interface? - Basic class defining properties and methods for structures. Specific buildings will either extend or implement this class
3. Many structures
4. Enemy – extendable or interface? – Basic definition of properties and methods for critters (similar to the idea behind structure class).
5. Many enemies
6. Projectile
7. Many projectiles
8. Movable
9. Map – grid? Tiles? Size, contains elements of scenery + path
10. MapEditor – allows to generate new or edit existing maps. Map format: .txt file?
11. Debugger

Use cases:

1. Menu related
2. …
3. Game related
4. …
5. Login
6. Select option from main menu (play, mapeditor, quit)
7. Place tower
8. Upgrade tower
9. Create path
10. Edit map
11. Save map
12. Load map
13. Check score