

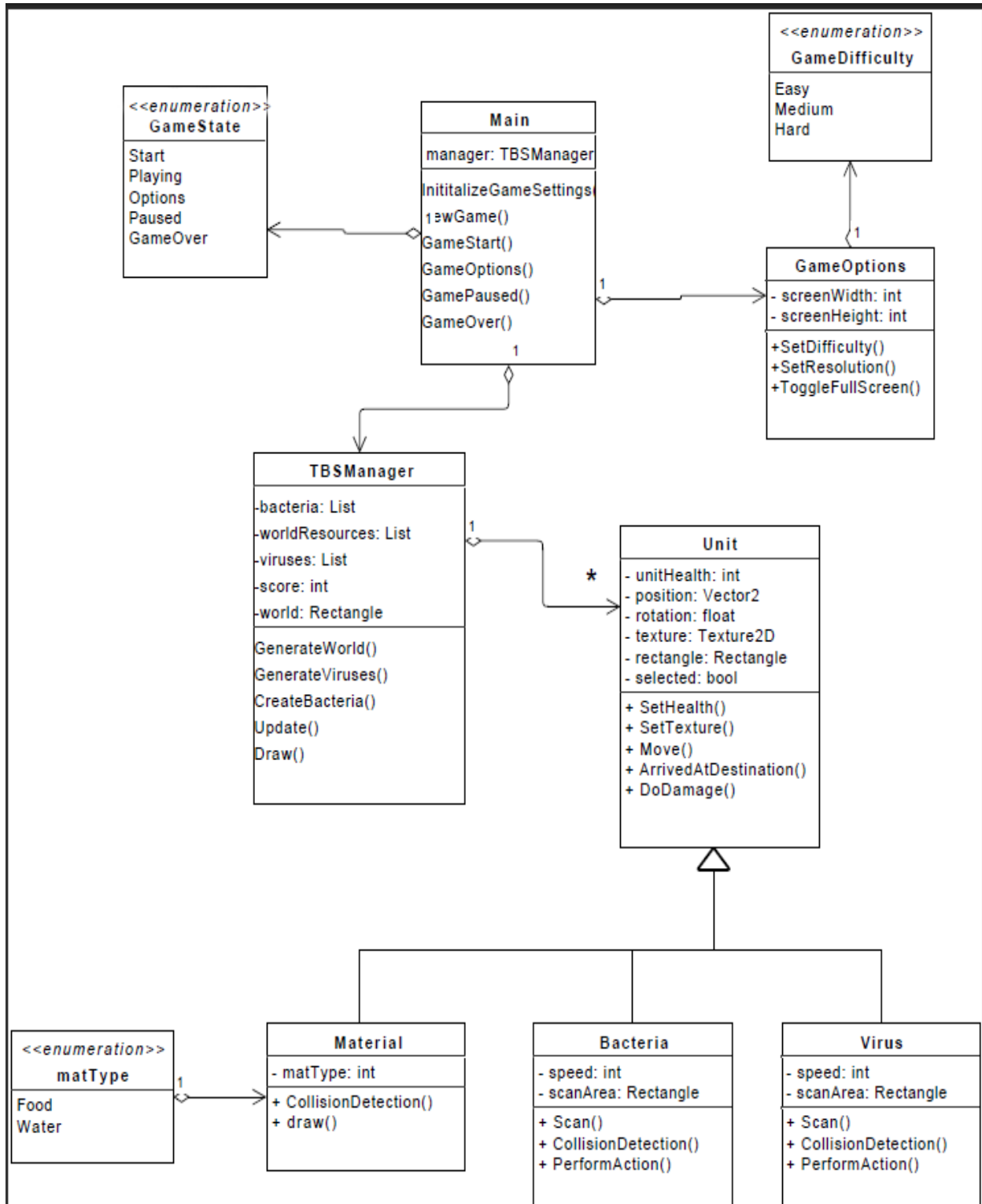
Prokaryotic Showdown

Progress Report 11/15/2012

- **Functional Minimum (complete)**
 - Our functional minimum layer will be a single player survival game where the objective of the game is to survive. **(complete)**
 - The world will consist of resources which the player should collect in order to grow and multiply. **(complete)**
 - Each grow and multiply action will cost some resource points. **(complete)**
 - The world will also consist of threats such as viruses that move about in the world. **(complete)**
 - The bacteria will have health and die if their health reaches zero. **(complete)**
 - Players need to accomplish objectives such as maintaining some amount of resource points for a particular length of time, or grow the population up to a certain level etc. to win the game. **(complete)**
- **Low target**
 - Players build up their resources (resource points) and use them to create more bacteria and to level up their bacteria. **(complete)**
 - The world map will be a battle ground where 2 players will grow their respective bacteria population and try to exterminate the other population for dominance.
 - It will be turn-based.
- **Desired Target**
 - A larger, interesting world with a lot more variety of resources and threats.
 - Players can choose among multiple races of bacteria, each having unique abilities.
 - Players will be able to upgrade their bacteria and become stronger. **(complete)**
 - Upgrades may include health, resistance to diseases, faster movement etc. **(complete)**
- **High Target**
 - Players can choose among more than one world to play in.
 - The game will have a Fog of War (FOW) which will make the world more mysterious.
 - All the resources and enemies will be hidden on the map and will be revealed as the player explores the world.

- **Extra**

- Make the game a real time strategy game instead of turn based.
- Online Multiplayer.



Class Diagram

All the important classes and methods have been implemented and the game now functions as single player survival game where players play as bacteria.

There are randomly moving viruses on the map and the bacteria and viruses attack each other when they are within their scan radius.

Bacteria take time to collect food and water. The players should move the bacteria over the resource and it will start absorbing it.

The score depends on how many resources you collect and how many viruses you kill.

Players can grow their bacteria to level 2. The bacteria will become bigger, have more health and do more damage, but move slower.

Players will use a mouse and keyboard to play the game. Following are some of the actions they can perform:

- Hold left click and drag to select units.
- Right click to move the units around in the world. Move the bacteria close to a resource to start absorbing it.
- The game has a top view and the players will control the camera with their mouse to determine which part of the world they can see.
- Use keyboard to spawn and grow the bacteria. Press 'C' to create bacteria and 'L' to level up or grow the selected bacteria.

The map is randomized each time the game starts i.e. the resources are placed at random locations and the viruses spawn at random locations every game.

The HUD displays the following information:

- Bacteria Population
- Virus Population
- Score
- Amount of Food and Water
- Health bar on top of each bacteria which shows its health