

C Sc 335 Analysis and Design Artifacts for the Final Project, Spring 2014

Due: 11:00pm Friday 11-April to the common repository in BitBucket as part of your Java project

1. **Team Name:** Helix Industries

2. **Team Members:** Brandon Brown Daniel Lucas
Gabriel Basadre Will Clement

3. **Project Chosen:** Circle your team's choice of final project

TRPG

MUD

Tower Defense

Settlement Management

4. **Candidate Objects or Class Hierarchies**

List the seven most important objects, or the name of a hierarchy, and the main responsibility of each

Candidate Object	Single Responsibility in 1 or 2 sentences
¹ Player	Keeps track of a player's statistics (Money, name, unlocked maps, etc.)
² Tower	Represents a Tower and attacks Mobs on the map.
³ Map	Holds an array of tiles, keeps track of Towers and Mobs and has a background.
⁴ Tile	Decides whether or not a Tower or Mob can be placed/travel on it and keeps track of what directions Mobs can travel and what is on it.
⁵ Mob	Represents enemy unit that heads towards the player's Headquarters.
⁶ Wave	Contains a list of Mobs, represents one attacking round in the game.
⁷ Attack	Represents a Tower's attack against an enemy, including any status effects and the amount of damage.

These Class and Sequence Diagrams may be written by hand, captured as a picture on a white board, or drawn with a UML editor such as Violet

5. Class Diagram: Your team UML Class Diagram must show at least all of your candidate objects from above. Show any relationships between them the classes such as inheritance or interface implementation. Draw general associations such as dependency or aggregation. Label some to help explain things. Add any multiplicity adornments that seem appropriate. Use notes to explain things if you feel it will help. Each UML class must show the class name. For full credit, each class must have an average of at least 1 attribute per class. There must be an average of at least 2.0 methods per class, which may be implicit (need to repeat methods) if the class implements a Java interface with methods shown there.

6. Sequence Diagram: Your team UML Sequence Diagram should show the most important scenario you can think of. Your sequence diagram should show most of your objects from above and how they



