**ANALYSIS**

**Functional basic requirements**

* Ship with movement and shoot
* Asteroids spawn in the high (don’t see them)
* When asteroids were shot, divide in smaller asteroids
* Score by time and number of asteroids shot
* Life determinate
* Screen of Game Over

**No Functional requirements**

* The ship shoot missile from mesh with the direction of camera view
* The ship movement is determinate: with key W and S (forward movement) and with key A and D (Rotation actor)
* The ship has a determinate life expecting that the biggest asteroid has the damage to eliminate all life and the second biggest has the damage to eliminate half life
* The ship can shoot two missiles per second (one missile per half second)
* The ship has two CollisionComp to notice the collision with asteroids
* When missile’s ship destroys asteroid, ship earn 50 points
* When the life of ship be zero, the game is end and launch the level with the score and message of game over
* When the game is end, every second which has survived will count as 5 points
* There are 4 determinate sizes of asteroids
* Asteroids can spawn with different sizes
* When an asteroid is shot, this is destroyed and spawn two asteroids half its size
* When an asteroid is shot and his size is the smallest, this is destroyed and don’t spawn anything
* When an asteroid touch TriggerBox below plane of water, the asteroid is destroyed
* Velocity of asteroids is random with ranges, but the component Z always is negative
* Components X and Y of asteroid’s spawn location is random with range and the component Z is determinate.
* Missiles have a CollisionComp to notice the collision with asteroids or ship
* Missiles have a constant velocity

**ASSETS**

**Models**

* Ship
* Missile
* Asteroid

**Materials**

* Water

**CLASS DIAGRAM**