# CSC413[01] – Term Project – Design Documents

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## Wingman

1. JApplet
   1. Game – creates an instance of a game, calling an initializer class
      1. HUD – displays user score, health, and lives
      2. Bullet – creates a bullet object. Leaves player or enemy, aimed at target
      3. Explosion – animation for bullet hits and unit explosions
      4. Island – displays island object on background
      5. Unit – creates a game unit, with set power, and places it on the canvas at requested location. Unit is reset upon destruction.
         1. <OBSERVER> Player – user controlled airplane, can collide with other units
         2. Boss – endgame unit with greater power and health
         3. Weakling – pawn style enemy which shoots in a straight line and has little health
2. Wingman – the game initializer class. Initializes all game objects
3. <OBSERVABLE> GameEvents – watches for user input and other events
4. Keycontrol – defines user controls for Player object
5. Media
   1. Sound – initializer and container class for background music and sound effects

## Tanks

1. JApplet
   1. Game - creates an instance of a game, calling an initializer class
      1. HUD – displays user score, health, and lives
      2. Bullet – creates a bullet object. Leaves player or enemy, aimed at target
      3. Explosion – animation for bullet hits and unit explosions
      4. Unit – creates a game unit, with set power, and places it on the canvas at requested location. Unit is reset upon destruction.
         1. <OBSERVER> Player – user tank, collision event is different, does not cause destruction
         2. Enemy – pawn style enemy which moves randomly across map and shoots in the players direction
      5. Wall – creates a wall object and places it on canvas. Can be set to destructible and indestructible. If destructible, has hit count till wall breaks.
   2. Tanx Media
      1. Sound – initializer and container class for background music and sound effects
   3. KeyControl– defines user controls for Player object, not the same as Wingman due to different types of movement
   4. MiniMap – smaller version of game map, allows user to track location of their and enemy units
   5. <OBSERVABLE> GameEvents – watches for user input and other events such as minimap updates