Thomas Freehill 1/14/2017

**Don’t Be a Hero** (2-day game project started at 4pm)

***Overall Mechanic***

The player controls a swarm of monsters (either in groups or as individuals) in an effort to kill a single enemy, Guy Goodman, who is significantly stronger than any individual monster in terms of both health and attack power.

For example, if a player decides to simply rush Goodman—surrounding him—then Goodman will likely win. This is because the majority of the player’s monsters are prevented from attacking by the few actively engaging Goodman, in addition to Goodman repeatedly one-hit-killing swaths of monsters in sweeping close-range strikes.

The player starts with a fixed number of monsters that do not regenerate either in number, health, or fatigue (as they have none). Goodman starts with a limited amount of health, and regenerating fatigue, so it benefits the player to ***strategize*** attacks to reduce casualties, and most quickly win.

***Environment and Movement Strategy***

The game occurs on a single-screen (non-scrolling) 2D top-down procedurally generated tile-based series of rooms.

Both monsters’ and Goodman’s movement will use A\* path-finding for locomotion.

Movement over obstacles, such as pools of water or dead monsters, halves monster speed, but does not reduce Goodman’s speed or fatigue.

Goodman’s movement strategy will be state-based such that he avoids becoming surrounded, entering dead-ends, and overall tries to hunt singled-out monsters (“heroes”) or escape. If Goodman is forced into a dead-end then he takes advantage of choke points such as doorways.

The monsters’ movement will only be dictated via waypoints given by the player.

The player can customize individual or groups of monsters’ ***standing orders*** such as:

* Stand ground-passive: never move or attack unless explicitly told otherwise.
* Stand ground-defensive: only move to attack within a default range, then return to center.
* Chase in-range: if Goodman comes within a default range, and not currently in motion, chase.
* Patrol-aggressive: same as *chase in-range*, except also traverse 2 or more waypoints on a loop.
* Patrol-defensive: same as *stand ground-defensive* with waypoints loop from *patrol-aggressive*.

***Abilities***

Overall monsters attack at a slower rate than Goodman, meaning one-on-one Goodman has the better chance of winning unscathed (though with less fatigue).

Monsters are either melee or ranged.

*Melee monsters* must make direct contact with Goodman to reduce his health by a small amount. Melee monsters also have the option to attempt to grab Goodman and reduce his fatigue, but at the cost of their lives.

*Ranged monsters*’ missiles will travel a straight line until they strike either another monster, Goodman, or a wall. However point-blank missile strikes cost the monster its life, in addition to any target struck, except walls.

Goodman has three abilities: punch, in-place sweep, and jump.

* Punching a single monster costs him the least fatigue.
* In-place sweeping a group of any number of monsters costs slightly more fatigue
* Jumping over any size group to a free space costs the most fatigue based on jump length.

Goodman’s fatigue begins to regenerate the instant he stops moving, and if he stops for more than a few seconds his fatigue regenerates even faster. If Goodman runs out of fatigue he moves as half speed and has red-flagged fatigue, which prevents him from using any ability until his fatigue is full.

***Flavor***

Monsters who separate from a group of three or more prompt “Don’t be a hero!” text to appear over the originating group, while individuals just have “AHHHHH!” continuously overhead. This also provides a somewhat sensible reason why Goodman can so easily hunt individuals.

***Programming Notes***

Sprites will not have complex animations or lighting.

This game will not leverage any game engine, nor will it aim to generalize as a custom engine.

Much of the assets will be hard coded.