DFS Plan – Adam Riley

I’m making a basic 2D realtime RTS adventure with the purpose of exploring an ECS paradigm. I’m going to base the combat off The Realm of the Mad God. Maps will be grid based but the movement and abilities of entities will be free. I want simple interactive UI for NPC interaction. I want a quest system that will be the driving force of the player through the game. If time allows, I want multiple levels that the player can explore.

The controls are intended to use wasd and the mouse for interaction and abilities. Possible controller support may be added.

The first level layout is as follows:

* Player starts at the bottom of the map.
  + Map is incursion style
* There is a barrier preventing the player from leaving bottom side.
* The NPC is there ready to talk too.
  + NPC gives quest to kill enemies above barrier
* When interacting the player’s input is consumed by the UI system.
* Can Accept or decline.
  + First pass, decline just exits the Dialog without any consequences.
  + Second pass, there are consequences for declining quests.
* Camera is centered on player
* Once, quest is accepted, you can pass through invisible barrier
* Once, the quest is complete, Return to the giver to finish it. This will open a door to the next level.
* Once level one is done, other levels can be made but not required. Only if time allows.

Consequences to failing or declining quests will result in the quest failing, this in turn will effect that map in a negative way. Maybe the NPC dies, making other paths closed to you. This could open alternate paths later. Note that this is a stretch goal.

Entity Component System

The rules that I would like to follow in the code I’m going to use this in are:

* Components only hold data, do no logic
* Systems only preform logic, have no data

This is to explore how easy it is to begin and add to games using this structure.

References: https://www.youtube.com/watch?v=W3aieHjyNvw&feature=emb\_logo

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|  |  | **Schedule** |
| **Week** | **DATE** | **DUE** |
| 1 | Jan 17 | Project Planning |
| 2 | Jan 21,24 | Project planning and Architecture |
| 3 | Jan 28,31 | Get Map setup and player moving – 4 hours  Get NPC made and interact – 4 hours |
| 4 | Feb 4,7 | Get UI and interactions – 4 hours   * Including starting the quest   Rendering and animation – 4 hours |
| 5 | Feb 11,14 | \*\*\* Out of town \*\*\* DICE Conference \*\*\* |
| 6 | Feb 18,21 | Get Enemies to spawn and barrier to drop – 4 hours  Combat –   * Player can fire visible bullet * Bullet can die after 1 sec * Bullet can collide with enemy * Enemies can take damage * Enemies can die * Player combat – 4 hours * Enemy combat – 2 hours * Polish and getting it to feel right – 2 hours |
| 7 | Feb 25,28 | Quest Finish   * Get Quest to attach to player – 1 hour * Allow update to Quest – 3 hours * Finish Quest and trigger exit to level – 4 hours |
| 8 | Mar 3,6 | **Midterm Presentation – Due 3/10** |
| **9** | **Mar 10,13** | **Midterm Presentations** |
| 10 | Mar 17,20 | \*\*\* Out of Town \*\*\* GDC \*\*\* (Spring Break) |
| 11 | Mar 24,27 | Multiple Levels – 2 hours   * Create multiple levels – 2-6 hours |
| 12 | Mar 31, Apr 3 | Quest fail / decline consequences – stretch goal   * Time depends of the changes |
| 13 | Apr 7,10 | Polish – 8 hours |
| 14 | Apr 14,17 | Presentation Prep / Ludum Dare Weekend |
| 15 | Apr 21,24 | Final Project Submissions and Presentations – Due  Presentation Prep |
| 16 | Apr 28 May 1 | **Final Presentations, Part 1** |
| **17** | **5/5** | Reading Day |
| **17** | **Wednesday**  **5/6** | **Final Presentation - 11 am** |