Currently completed:

* Fighting Slightly Fixed – Made some changes to make sure the fighting is still working, and working properly. One not fixed is the enemy trying to take an action after the fight is over, which is odd since on the check the widget gets deleted before continuing to other parts of the blueprint. Otherwise, the fighting does work as intended, although unbalanced. Also gives gold after the fight is done.
* Trade Weapon – Chests can now actually be used, where you can exchange your weapon for one found in a chest. This replaces the player’s current weapon, giving the stats and abilities of that weapon.
* Pausing – Player can pause anytime and quit out of the game, stopping time while paused.

What will be working on:

* Other worlds – Getting the other worlds completed, with no seed generation yet.
* Boss AI Trees – Have bosses with unique AI Trees for the end of areas.
* Working shop – Shop buttons are still not working, other than removing the weapon button once clicked on. Needs to replace player weapon like a chest item, and for other buttons to actually check for enough gold before purchase.

**Current Progress (Complete, Partially Implemented, Unimplemented):**

* 1. Generation – Room, loot, and enemy generation based on a numbered seed. Rooms generate on entering an area, while enemies and loot can generate when entering the room. – Partially complete, not based on a seed yet.
  2. Fighting – A proper fighting system that is fair but challenging. Turn-based combat with “dice rolls” determining a fight’s outcome. Ex. An axe having 5 Attack and a dice of 1 – 10, attacking an enemy with an armor value of 4. The axe needs to roll greater than 4 to deal 5 base damage. – All fighting abilities are implemented.
  3. Stats – Some stat system to improve the player over time, and to determine the outcome of fights. Stats included: Attack, increasing damage dealt; defense, increasing the chance that an enemy attack fails; dexterity, improving dice rolls; and speed, determining the order of attacks (the enemy gets the first turn if their speed is higher than the player); along with health to determine winning and losing. – Stats are functional, with only AP needing to be worked on. Going to consider complete for now, as AP counting will be simple to implement.
  4. Abilities – Various abilities tied to the items you obtain, based on the tier of item. All are going to affect battles differently, from taking a turn to boost stats to modifying the dice to either hit more often for less damage or hit less often for more damage. – Partially complete. Weapons all have at least 1 ability, but need to be expanded upon for higher tiers, or just have a set amount of abilities per weapon disregarding the tier.
  5. Animation – Fitting 2D animation over a 3D environment, as well as setting up animations to play over specific events and for specific weapons. Would need animations for idle, preparing to attack, attacking, being attacked, and defending. – Progress is being made to sprites, with a player sprite sheet being made. Not very original, modelling it after myself, but I needed something. Still not implemented into the game, however.
  6. UI – Working, good looking UI for the menu and game itself, needing custom designs for the buttons instead of the default in the widgets. – Going to mark as complete since most are finished. More might be thought of later down the line, but the majority are complete.
  7. Progression – Moving between areas, levels, and the progression of the player and enemies. Having areas and rooms labelled as X-Y, X being area number and Y being room number, incrementing when moving to a new room or area. Need a system for levelling enemies and the exp they would drop for the player to level up as well. Levelling increasing HP, Attack, Dexterity, and/or Speed. – Movement between rooms is working and can interact with the rooms, but enemy and player levelling are unimplemented.
  8. AI – Use of a behavior tree to control enemy behavior; for attacking, using a skill, or healing. – Basic AI Tree is functional, considering complete since variations for enemy variants will not be as complex to implement. Just need other behaviors to choose from.

**Schedule (Complete, In Progress, Incomplete/Unreached)**

1. Basic design
   * 1. Set up player pawn as a moving camera, no controls for the pawn. Get game instance set up for player stats and information. Create basic enemy framework, with stats set up. Basic UI for controlling the player, with attacking and skill button. – Complete
2. Working game
   * 1. Get basic mechanics working, such as combat. Requires behavior tree for the AI first, then make stats and dice rolls work for basic combat. Once level is completed, move to a predesigned room due to no seeded runs set up yet. Create working pause menu for exiting the game whenever. Working weapon variants for the player. Set up treasure and shop rooms. – Marking as complete, though shop needs working buttons. It is technically set up, though.
3. More mechanics
   * 1. Set up seeded runs, so each new run of the game is different from the last. Create sprites for the player and enemies and set them up possibly as animations. Create randomization of enemies, with enemy types and variants as well as bosses. Should be able to do a full run of the game. – In progress, sprites are being produced currently. Enemies are already random, with different stats per enemy.
4. The looks
   * 1. Get the animations for enemies and players to work, set up background of the levels, make the UI look nice, set up the lighting for 3D objects. A general setup of all the art stuff. – Unreached.

**Projects for my portfolio:**

Capstone:

Chosen from how much work I’m putting into it, trying to make progress towards a truly working game. It has been tough, but I felt like it has the effort put into it to show off to someone.

3D Modelling and Animation Final Model:

Also another project I was proud of doing. It’s rough, both on looks and on the animation, but to have made it in a single semester is still somewhat mind blowing. A full, humanoid looking model that’s set up to be animated I would think is something nice to add to the portfolio.

Unity 2D Game Design Project

An older project from Unity that I recall doing, but need to dig up from my old laptop if it’s even possible, as it was breaking a semester or two ago. It was the top-down bullet-hell prototype, which I developed over time for various assignments. More a proof of concept, but it’s something I would like to add to a portfolio as well, due to the work into the mechanics of the player’s weapons and from how the enemies work, specifically how the bosses can choose and create a bullet pattern.