Video Game Design Project

**Game Structure**

* **3D RPG game:**
  + Exploration
  + NPC Fights
  + NPC Interactions
  + Item Collection
  + Item Interactions
* **Map:**
  + Single map, three stages
  + Forced path
  + Perspective backgrounds
  + Checkpoints
  + Day/Night cycle
    - Fade to night relative to game progress
  + Spawn points and Out of bound system
* **Player stats:**
  + Lives
  + Health
  + Mana
  + Stamina
* **NPCs:**
  + Enemies to fight
  + Friends for powerups/suggestions
  + One final boss with two fighting stages
* **Gameplay:**
  + Introduction
  + Read signs/interact with certain objects to gain directions
  + Fight enemy NPCs and destroy items to unlock path parts
  + Interact with friendly NPCs to gain skills, lives and learn about storyline
  + Fight final boss
* **Menu Interface:**
  + New Game
    - Player name
    - Starting level
    - Difficulty
  + Save Game
  + Load Game
    - Save file selection

**Game Mechanics Implementation**

* **3rd Person Controller** 
  + CharacterController
    - Walk - Done
    - Sprint - Done
    - Jump - Done
* **Camera movement**
  + Cinemachine Virtual Camera
    - Look around - Done
    - Zoom (Aim)
    - Sprint animation
* **Spawn system**
  + Manager
  + Checkpoints
  + Out of bound
* **Player Stats L - done**
  + - **And also a temporary HUD for debugging purposes - done**
  + Lives
  + Health – partially done
  + Mana
  + Stamina
  + Last checkpoint
  + *Powerup cooldown – Later on and maybe in a different area (Fighting)*
* **Stat manager L - done**
  + Set,increase,decrease Health,Mana,Stamina
* **World Interactions F**
  + Friendly NPCs
    - Show dialogues
    - Give something to the player
  + Collectable mana and health
  + Objectives
    - Talk with all NPCs
    - *Kill all enemy NPCs - later*
* **Save & Load system F**
  + Create a new game
    - Choose the starting level
  + Save the current game
    - Temporary pause menu:
      * Pause with ESC, Save game with S, load last save with L
    - Last checkpoint, Lives, Objectives, HMS, and skills later on
      * Hms = health,mana,stamina
  + Load the last game saved
    - Load what was saved
* **Main Menu L**
  + Game
    - Start a new game
      * Difficulty
      * Starting point
    - Load previous game
  + Exit
* **Enemy NPCs** 
  + Spawn them
  + Movement
  + Attack the player
  + They need to have Health.
  + They sometime can drop powerups or collectibles
* **Fighting**
  + Melee damage
  + Long range damage
* **HUD**
  + Crosshair
  + Lives
    - Single Icons
  + Health, Mana, Stamina
    - Bars
  + Objectives
    - Like a e-learning quiz with question and multiple answers
  + Skillbar (Will we have skills?)
    - Shows the three available skills and the one currently in use
* **Tutorial**
  + Use WASD to move and Pointer to look around
  + Shift to run and space to jump
  + Mouse wheel or 1-2-3 to change skills
* **Tutorial**
  + Use WASD to move and Pointer to look around
* **Map Design**
* **Post Processing**

**Useful Assets**

* **Terrain Sample Asset Pack**
  + Terrain mapping and texturing
* **DreamScapes**
  + Trees, Grass, Rocks prefabs
  + MAYBE props prefabs
* **More – need water**
* **More – need sky**
* **More – volumetric lights**
* **More – cave design**
* **More – need props**
* **More – NPCs, Character, Items Prefabs**