# Part C: Brief Report

You can add more rows to each table below by clicking within the last cell of the table and then pushing **“Tab”** on your keyboard

Student ID:

Student Name:

Link to Prototype on OneDrive: <*paste link here*>

**Randomly Generated Scenario**:

*<paste a screenshot below>*

**Unity Store Assets:** Assets that you have downloaded from the Unity Asset Store to use in your prototype

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| Asset Name: - eg: Medieval Gold | Type of Asset: - eg: 3D objects | Where it is used: - eg: Gold bars and coins to collect | URL (link) to the Asset on the Unity Asset Store: - eg: https://assetstore.unity.com/packages/3d/props/medieval-gold-14162 |
| RPG Medieval Props Demo | 3D objects | Decoration Items around the map | <https://assetstore.unity.com/packages/3d/props/rpg-medieval-props-demo-248681> |
| Grass Flowers Pack Free | 2D Textures | For grass creation | <https://assetstore.unity.com/packages/2d/textures-materials/nature/grass-flowers-pack-free-138810> |
| Free Low Poly - lava Plants | 3D Objects | Decoration Items around the map | <https://assetstore.unity.com/packages/3d/environments/fantasy/free-low-poly-lava-plants-145043> |
| Stone Monster | 3D Creatures | Enemies | <https://assetstore.unity.com/packages/3d/characters/stone-monster-101433> |
| The Free Medieval and War Props | 3D Props | Decoration Items around the map | <https://assetstore.unity.com/packages/3d/props/the-free-medieval-and-war-props-174433> |
| Stylized Fantasy: Props Sample | 3D Objects | Obstacles for parkour and level design | <https://assetstore.unity.com/packages/3d/props/stylized-fantasy-props-sample-234139> |
| DOTweens (HOTween) | Scriptable Animation | For GUI and Menu Animation | <https://assetstore.unity.com/packages/tools/animation/dotween-hotween-v2-27676> |
| Cartoon FX Remaster Free | Particle Systems | For VFX and special Effects | <https://assetstore.unity.com/packages/vfx/particles/cartoon-fx-remaster-free-109565> |
| Battle Wizard Poly Art | 3D Character | A Wizard that will guide the player | [Battle Wizard Poly Art | Characters | Unity Asset Store](https://assetstore.unity.com/packages/3d/characters/humanoids/fantasy/battle-wizard-poly-art-128097) |

**Did you use any online Tutorials?** Details of the tutorial and what it helped you with

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| Details of what the tutorial helped you with - eg: Helped me learn more about my difficult challenge raycasting | Tutorial URL: - eg: https://learn.unity.com/tutorial/let-s-try-shooting-with-raycasts |
| Shooting Mechanics of the game | <https://www.youtube.com/watch?v=FbM4CkqtOuA> |
| Unity Docs -Unity Terrain | <https://docs.unity3d.com/Manual/terrain-UsingTerrains.html> |
| Chat GPT helped me Creating puzzles | <https://chat.openai.com/> |
| Dialogue System From Brackeys | <https://www.youtube.com/watch?v=_nRzoTzeyxU> |
| Lava Monsters AI | https://www.youtube.com/watch?v=UjkSFoLxesw |

**Major Changes made since submitting Prototype Plan:** details of changes made and why it occurred

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| Change Made: - eg: Player Rabbit changed to Cat - eg: Removed complex Boss fight | Details of why this change occurred - eg: Could not find any rabbit models in the Unity Asset Store, so switched to a cat. - eg: Feedback for Part B indicated it was too ambitious, and to focus on simple combat only. |
| Player Movement, Shooting System and Lava Monster | We added a player controller from unity’s starter assets and added a shooting system, which will be used to defeat lava monster in the game. Lava monster were also added after part B that was not in scope of the game at the start. |
| Redesign the map | Map from part B was scraped and we created an all-new map which has different biomes |

**Known Bugs or Limitations:** details of bugs you have identified but could not fix.

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| Limitations or Bugs: - eg: Player sometimes can move through the walls - eg: Shooting enemy not working | Details (how did you attempt to fix it?) - eg: Tried different colliders and many settings, but could not figure out why it was happening. If move slowly, the collision works. - eg: I set up raycasting on the Shoot.cs script, but it is not registering a hit on an enemy. Tried a couple of hours to fix it but failed. |
| Player Movement | In player B the player movement was too choppy and boring we added a new character controller to make it feel more alive and player now does not slide down the floor which was a bug from part B |
| Puzzle End | Some feature were being disabled after a player finish playing one particular puzzle which is fixed now |
| Lava Collision | When player come in contact with lava. The collisions were not counting its was because of FPS controller I fixed it by using OnControllerColliderHit |
| Player was not taking damage from enemy/Lava Monsters | The players hit colliders were too short in height so I resized it and it worked. The projectile of enemy was unable to hit the players collider. |

**The Player Controller:** details of the controller that allows the player to control the avatar

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| Controller Asset Name: - eg: FPSController | Identify type of controller used: - Standard Assets Controller - Unity Asset Store Controller  - Self-created Player Controller | Controller details:  - eg: WASD to move around, SPACE to jump |
| FirstPersonController | StarterAssets | WASD to move around, Left Shift to Run, Space to Jump and left mouse button Fire |

**End Condition(s):** details of the scripts/functions used to trigger End Condition(s) for the prototype

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| Type of End Condition: - eg: Win Prototype Level  - eg: Game over / Lose | Script that controls Condition: - eg: WinGame.cs  - eg: PlayerController.cs | End Condition details:  - eg: Cross the finish line before the timer runs out to win. OnTriggerEnter function used to trigger condition at finish line if player enters trigger, timer stops and player is notified of winning on interface - eg: When player health reaches zero, a custom function GameOver will display “Game Over” on the screen. |
| Win | GameManager | Player needs to find six shapes around the map by killing the monsters and solving the puzzles at the end he will insert the six puzzle pieces inside a chest/cube and the game will end. |
| Gamer Over | PlayerBehivour.cs | Player has three life and each one of them has number of health which can be reduce when you get hit by a lava monster or health will go down to zero if you fall in lava. If a player’s health comes, down to zero, he will lose one life and If he lose 3 life he will lose the game. For every life down, he will respawn from his last checkpoint/Park bench. |

**Dialogue, Assigned, Own Choice Event (and any other Events you have added):** details of the scripts/functions used for your randomly generated Dialogue Event, Assigned additional event, and Own Choice additional Event. If you have even more events, you can list them here as well.

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| --- | --- | --- | --- |
| Event type and name:  - eg: Assigned: Opening Object  - eg: Dialogue: Angry  - eg: Own Choice: Attack | Script - eg: DoorTrigger.cs  - eg: AngryTrigger.cs  - eg: Attack.cs | Object with Script - eg: DoorTrigger  - eg: AngryNPC  - eg: Sword (child object of PlayerController) | Event details:  - eg: During Update function, checks if “E” was pressed AND Player is in trigger area. If both TRUE, then door opens. OnTriggerEnter function used to test if the Player is in the trigger area.  - eg: OnTriggerEnter checks if player in Trigger area near NPC. If TRUE, then text appears, “You shouldn’t be in the graveyard! Turn around now or my minions will ATTACK YOU!”.  - eg: During Update function, system checks to see if “Left mouse button” was pressed. If TRUE, then the player sword swings forward. OnCollisionEnter calculates damage if contact is made. |
| Opening Puzzle | GUILookAtCamera.cs | Interact | During update function checks if player is near or not if player is near we enable the canvas which holds interface and wait for input if player press E button if he does puzzle menu will open. |
| Collection Item | PickupItem.cs | Pick Health, Ammo and other shapes of cube | Using OnTriggerEnter function wait for the player trigger once payer hit the object it provide reward according to code. |
| Fire/Attack | PlayerBehivious.cs | Shoot Gun Fire | Using unity Engine’s new input system Character shoot a projectile towards the player from his gun insuring the screen centre with raycast. |

**Difficult Challenge:** details of implementation of your difficult challenge.

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| Did you attempt your assigned difficult challenge? - answer yes or no | If yes, describe how you implemented your difficult challenge  - eg: my difficult challenge was to create a random function. In the script “randomise.cs”, it randomly picks a number between 1 and 10. The random number generated is then used as the object number for the chest containing the diamond. For example, if the random number is 4, then chest4 will contain the diamond the player needs to find. |
| NavMesh Path | I created Lava monster which use Navmesh agent to find the shortest path towards the player. Then they attack player while player is out of there range they stop and wait for the contact again while they wait I used a patrol function which help them move around under a small radius |