Reference Document

Third Party Assets

Resource	Information	Purpose	Date Accessed	Source
OpenXR plugin 1.10.0	Developed by Khornos that simplified AR & VR Development by allowing Developers target Wide Range AR/VR Devices.	This allows the group to develop VR features more straightforwardly.	03/10/2024 19:20	https://docs.unity3d.com/Packages/com.unity.xr.openxr@1.10/manual/index.html
XR Core Utilities 2.3.0	Contains a variety of classes and extension methods which are used and shared between multiple XR packages.	This includes maths utilities, XR origin and object pool to allow us to spawn enemies, provide movement and have ourselves a player	03/10/2024 19:20	https://docs.unity3d.com/Packages/com.unity.xr.core-utils@2.3/manual/index.html
XR Interaction toolkit 2.5.4	High-level, component-based, interaction system for creating VR and AR experiences.	This provides provide XR controller input, which allows us to provide movement onto the player and grab objects	03/10/2024 19:20	https://docs.unity3d.com/Packages/com.unity.xr.interaction.toolkit@2.5/manual/index.html
XR Legacy Input Helper 2.1.10	Contains number of useful helper for building XR project that include tracked post driver and input asset XR bindings	This includes the camera offset and arm models to provide the camera and indicate where the player's hands are in the game	03/10/2024 19:20	https://docs.unity3d.com/Packages/com.unity.xr.legacyinputhelpers@2.1/manual/index.html
XR Plugin Management 4.4.0	Provides simple management of XR plug-ins.	This allows the project to be compatible and support VR headsets such as Meta Quest 3	03/10/2024 19:20	https://docs.unity3d.com/Manual/com.unity.xr.management.html
Universal RP 14.0.11	Prebuilt scriptable render pipeline that provides artist-friendly workflows.	This optimises the graphics in the VR project to provide better performance.	03/10/2024 19:20	https://docs.unity3d.com/Packages/com.unity.render-pipelines.universal%4014.0/manual/index.html

Input System 1.7.0	Allows developers to use any input device to control the unity project.	Unity VR can only use the input system, meaning we cannot use the input manager to implement.	03/10/2024 19:20	https://docs.unity3d.com/Packages/com.unity.inputsystem@1.7/manual/index.html
William’s Lasers	William’s pathmaker of firing lasers that is based on a green beam.	This is used to fire lasers to deal damage to enemies.	16/11/2024 13:00	[No source, Credited by William (Our member)]

Member Credibility & Contribution

Non-Technical Contributions

Resource	Member(s)	Description of Contribution	Purpose of Contribution
Creating Tasks	Everyone	Everyone got involved with creating tasks on a piece of paper, that piece of paper provided high, medium and low priorities of each task to ensure that the high priority tasks are completed first.	This leads the group to identify the tasks that are required to complete the project.
Sprint Logs	Jake	The sprint logs are reflections towards everyone's progress and contribution between each of the sprints.	The sprint logs provide everyone progress upon each sprint which include meetings, reviews, retrospective and planning for each of the sprints, this will lead the group to reflect the group's work and plan out the next sprint week
Priority Task Spreadsheet	Jake	The priority task spreadsheet is a replacement of the piece of paper that includes all of the tasks, the updated priority of those tasks, the status of the tasks and who is assigned towards the tasks.	This can track the progress on the tasks that are currently available and identify if anyone is assigned to any tasks and whether the priority tasks are complete or require improving once tested.
Reference Document	Jake	A reference document is to include any third party assets that the group uses to create the project. This reference document also provide the credibility towards everyone's contribution towards technical and non technical task	This allows the group to document any third party assets we use to prevent any legislation regulations from occurring when submitting our project.
GitHub Repository	Launcelot	The github is a repository that allows all the members to work on the same project to merge their work with other members.	The repository provides methods to pull and push their work onto the main/dev branch, which will lead members to merge their work they currently work on upon their branch.
Technical Design Document	Launcelot	The technical design document is a document that provides a set of rules when coding in the repository such as the packages and hardware required for members to use, coding	This will lead members to understand and follow the coding guidelines and file structure that Launcelot has provided in the TDD.

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		guidelines, file structures and coding architecture to follow.	
Game Concept Document	Loretta	The game concept document is a one to two page document that explains about the design of the game.	The GCD includes the features, mechanics, genre and interface of the game, leading the group to be able to create tasks for the project.
Jira	Paul	Jira is a website in Atlassian that can manage tasks upon their status and assigning members towards each sprint and use towards collaborative work.	Using Jira will lead the group to be able to work towards their assigned tasks and can track other members' progress in each sprint.
Confluence	Paul	Confluence is a website in Atlassian that can store and create documents for every member to access and use towards collaborative work.	Using Confluence will lead the group to create new documents or share existing documents in one space for members to use and access to receive documentations of the project.
Test From & Spreadsheet	Paul	A Test form is a google form that can provide feedback of the testing towards the user's experience (whether being a member or someone outside of the project). The spreadsheet stores any feedback from the test from.	Using the test form this will provide the group to identify any issues from members/users' experience with trying out the features onto the playable.
Itch.io	William	A Itch is a platform that involves the builds of games that can provide instructions and setup to the game, the game itself and recording, the title of the game and credibility to 3rd party assets and members.	This platform can allow the member to present the built-in game to the public in order to play.
Video Recording	Launcelot	The video recording is about the gameplay of the project we have created, this includes the maximum of 10 minutes of gameplay along with 5 minutes of the gameplay being meaningful.	This video provides the idea of what the game is about based on the gameplay presented, leading the player to be intrigued with the mechanics included.
Testing the Playables	Jake & Paul	Testing the playables is when features are merged into the playable level and have these members test each feature to check if they function in the game. This will then provide	This allows members to identify any issues in the game and start planning for solutions to fix these bug issues.

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		feedback for the features whether they're completed or reporting issues.	

Technical Contributions

(First Member in the member(s) column is the main contributor, the other members also contribute)

Resource	Member(s)	Description of Contribution	Purpose of Contribution
Grabbable Object (Hand Tracking)	Jack Brettel	Grabbable objects feature is an implementation where when the player grabs an object with a tag “grabbable” then the object is held in the hand of the player. Jack mainly contributed by implementing the grabbable objects William partially contributed by improving upon some bug issues of the grabbable objects.	This feature will lead the player to use the objects to deal damage to buildings and enemies.
Eating Citizens (NPCs)	Jack Brettel & Paul.	Eating Citizens feature is an implementation where the feature behaves the same as grabbable objects except if the citizens are next to the camera (assigned mouth) then the citizen object is destroyed and heals the player. Jack mainly contributed by implementing eating the citizens feature Paul partially contributed by improving upon a bug issue of eating the citizens.	This feature will lead the player to be able to provide a method from healing due to receiving damage from enemies.
Wave Manager	Jack Brettel & Jake	Level waves are an implementation that when the next wave begins the wave manager will spawn enemies from the spawn manager by pooling them. Once the player has reached above the	This feature will lead the player to have enemies spawn by a certain amount for each wave they advance and once all the waves are complete then this

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		length of the waves then the player has won. Jack mainly contributed by implementing the wave manager Jake partially contributed by implementing the spawn manager.	will lead the player with a win condition.
User Interface	Jack Cheal	The user interfaces are visual implementations that represent the health of the player, the count of the current enemies active and the visual indication of the enemies.	Having these user interfaces will provide visual effects for the player to identify important elements in the game without including every mechanic in the game.
Scene Management	Jack Cheal	The scene management is an implementation that allows the player to move from one scene to another based on certain conditions. For instance when pressing instructions and credits the player will go to the scene with instructions and credits or if the player goes 0 health or below they will go straight to the game over scene.	This will lead the player to navigate through the scenes in the games and end up in a scene with suitable conditions (game over and win scene).
Player Movement	Jake	Player movement is when the implementation allows the player to move and turn around with continuous locomotion, meaning that the player can move and turn around without snapping or teleporting.	This will lead the player to move around the level to grab objects that are away from them.
Input System	Jake	The input system is when the inputs for grabbing, moving and turning around are able to be used towards the player's input, this was supported with XR Interaction toolkit 2.5.4.	Using the package, this leads the player to only move, turn and grab in the game and not teleport or snap around.
Health System	Jake & Launcelot	The health system is a structured implementation by using the model-view-presenter to keep track of the player's health to check if the player will receive a game over once their health is 0 or below. Jake mainly contributed by implementing the player controller and player model. Launcelot partially contributed by improving Jake's implementation	This implementation will lead the player to be able to receive a lose condition in the game which is when their health is equal to or below 0.

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		of the player controller and player model	
Enemy Spawners	Jake & Jack Brettel	Enemy Spawners feature is an implementation of using a mixture of the factory pattern and object pooling to check the type of enemies to spawn and setting a maximum number of enemies that can be spawned at once. Jake mainly contributed by implementing both the factory pattern and object pooling. Jack partially contributed by improving Jake's implementation of the factory pattern and object pooling.	This feature will lead the enemies spawn by a certain number within each of the waves and can only provide a capacity of how many enemies can be in the level at once.
Win/Lose Condition	Jake & Jack Brettel	(**CONTRIBUTION IS EQUAL BETWEEN BOTH MEMBERS**) The Win Condition that Jack implemented is once the player has reached to the the length of the waves + 1 in the Wave Manager Feature (instance 3 waves availabl;e when reaching wave 4 they win). The Lose Condition that Jake implemented is once the player's health is equal to or below 0 in the Health System Feature.	This leads the player to have an ending to the game whether this be a game over or a congratulations, which will lead to goals of the game.
Helicopters	Launcelot	The helicopters are flying enemies in the game where when the helicopter's radar (collider) tracks the player then the helicopter will move towards the player and when at reach will shoot particles at the player.	The helicopter will provide a unique approach the player plans to take out, this leads to unique enemy behaviours in the game.
Explosive Barrels	Launcelot	The Explosive Barrel are cylinder objects that when enough velocity collides with the barrel, the barrel will explode and deal damage to (Enemy/Player/Both I don't know currently).	This will provide a unique method to deal damage to (Enemies/Players/Both of them).
Playable Level	Launcelot &	The playable level is a scene where all of the features are	This will lead the player to play with all of the features

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	Everyone	combined into one to make a playable level for the player to play on. Launcelot mainly contributed by creating the level. Everyone else partially contributed by including their features onto the level.	onto the level to defeat enemies and survive waves.
Destructible Physics	Paul & William	Destructible Physics feature is an implementation that whenever the player throws grabbable objects with force then the building takes damage. Taking enough damage will cause the building to break apart and spawn more grabbable objects. Paul mainly contributed by providing the prefabs for the building and destroyed buildings and made some progress in implementing the structure. William partially contributed by implementing the damage received to the buildings, destroying the building and spawning new grabbable objects.	This will lead the player to gain more resources to throw objects at other buildings and enemies.
Tanks	William	Tanks are grounded enemies that will move towards their target (enemy) and spawn a missile when they're in reach with the player.	This will provide a unique enemy for the player to deal with.
Firing Lasers	William & Launcelot	Lasers feature is an implementation that when pressing the trigger of the controller will fire laser out the player's hand. This deals damage to enemies. William mainly contributed by implementing the lasers and damage. Launcelot partially contributed by implementing the cooldown for the lasers.	This will lead the player to use a unique method to take down enemies and prevent constantly using the laser due to how overpowered those lasers can be..

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Missiles	William	The missiles are damageable objects in the game where once the object collides with the player or enemy will deal damage to them.	This will lead the player to prevent taking damage to the missile and use the enemy's weapons as a method to deal damage to the enemies.
Throwing Missiles	William	The throwing missiles are grabbable objects in the game where the player can grab hold of the missile and throw the missile back at the enemies.	This can provide a unique method for the player to grab the missile and return to sender to the enemies, providing a unique method of damaging enemies.