GAME DESIGN DOCUMENT

Game Title:

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Source	Description	Used For
Unity	Game Creation	Implementation
YouTube Tutorials	World Creation	Implementation
Generative AI (ChatGPT)	Coding support, design clarification	Error Fixing, design ideas
Asset Store Packages	All assets and controller	Visuals and controller

Project Plan

Chosen Methodology:

For This project i decided to work in an agile methodology. I have chosen this as i will be able to tackle the tasks in an order that is best suited for me to think about any changes i want to make to the project as i am building it. I will be able to test and see how my ideas are implemented throughout the project during my timeline.

Project Jobs

To do	description	priority
Create start screen / starting area	Build a start menu scene	**2**
Create a second gameplay scene	Add an additional scene with multiple textured props / environment	**1**
Implement persistent game states	Scripts to track health, crop count, wave number, enemy state	**2**
Add two PhysX-enabled objects	Include objects Colliding in the scene	**2**
Implement trigger zone interaction	Trigger when enemies eat the crops	**2**
Record 5-minute demonstration video	Show all MUST/SHOULD/COULD features; highlight criteria; disclose AI usage	**3**

Add level loader system	Scene transitions between menu → tutorial → game → victory/game over	**3**
Create one custom material or texture	Texture or physics material created manually, not from asset store	**3**
Implement Rigidbody-to-Rigidbody collision	At least one interaction between two rigidbody objects	**2**
Demonstrate ongoing game state management	Example: updating UI with wave count, crop count, health over time	**3**
Document testing results	Include functional tests + relate results to requirements	**3**
Implement controller or accessibility input	Optional controller or alternative device input	**3**
Add at least 3 accessibility features	Based on your Accessibility Analysis (e.g., colourblind mode, subtitles)	**3**
Add Raycasting functionality	shotgun raycast	**2**
Implement advanced enemy AI	pathfinding	**2**
Add cutscene or camera flyover	Pre-game tutorial flyover or cinematic intro	**2**
Expand tutorial system	Active tutorial that teaches game mechanics dynamically	**3**
Add advanced front-end UI	Settings menu, volume sliders, key rebinding	**3**
Add spatial/3D immersive audio	Directional audio cues in gameplay	**3**

Mood Board

This is the style that i am thinking for my game with a farmer just protecting his farm from waves of enemies

This is low Poly design and its how i want my game to be styled

 This is a generated image of the style of the farmer protecting his farm

This is the style of how i want the game to be played

Requirements Analysis

Functional Requirements

Requirement	Description
F1	Player can move and aim the shotgun
F2	Player can shoot the enemies
F3	Enemies move toward crops
F4	Crops disappear when damaged

F5	Waves progress until Wave 6
F6	Victory screen appears after Wave 6
F7	Game over screen appears if crops reach 0
F8	Story flyover runs smoothly

Non-Functional Requirements

Requirement	Description
NF1	Game should run at 30+ FPS on target devices
NF2	UI must be readable and accessible
NF3	Controls must be intuitive (mouse + WASD)
NF4	Fast loading between scenes
NF5	Code should be modular and maintainable

Accessibility Analysis

Issue	Plan
Small text	Use large readable font (TMP)
Hearing impairments	Visual indicators for enemy hit feedback
Motor limitations	Adjustable mouse sensitivity
Visual impairments	High contrast crops/enemies