

# PASSION-PROJECT DOCUMENT

“Tunnel Blasters”



## PROJECT PLAN

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## Version control

1.0	Made introduction for my game
1.1	Added the 10-pager design challenge
1.2	Conducted some researches

## Problem statement

How can a Bomberman-inspired game be developed in Unity that offers challenging, strategic gameplay with a unique twist, while balancing accessibility for new players and depth for experienced gamers?

## Introduction

### About my passion project

For this project, I will be creating a game inspired by Bomberman, called "Tunnel Blasters". The game will be developed using Unity. In this document, you will find information about the game's concept, the research and ideation process, and other details leading up to the final product.

### Target Audience

#### **Core and Indie gamers ages 16-35**

These are players who are already familiar with this classic game and enjoy retro-inspired games in general. My target audience is attracted to competitive, fast-paced gameplay with modern-like features that also includes ranked multiplayer, creative power-ups and unique level designs.

### Stakeholder

My uncle, who is my stakeholder for this project, is very passionate about retro games. He requested that I create a fast-paced game that he can enjoy playing, especially while he is traveling a lot for work. The game can be from any genre, but it must be a fast-paced retro game reminiscent of those from the late 90s or early 2000s. It is up to me to decide the specifics of the game.

## Goal

The goal is to create a fast-paced retro game from any genre. For this project, I will be making a game inspired by Bomberman in Unity. The gameplay involves navigating through a maze-like environment which takes place in mineshafts. The player places bombs to create pathways and as goal to eliminate the opponents.

## Design Challenge

### Game story

Jack, a seasoned miner with a heart as tough as the pickaxe he wields, has lived his life in the embrace of the earth. His mines had always been his sanctuary until one fateful day when a notorious gang of thieves known as "The Shadow Diggers" stole his most prized gems. With his livelihood and pride at stake, Jack sets out on a quest to retrieve his gems and bring the thieves to justice.

### Gameplay

In Tunnel Blasters the player plays as Jack to fend off the thieves that are trying to steal the valuable gems. The player must use the dynamites to eliminate the opposing player(s), they will also use the same dynamites to eliminate you as well. You will have a chance to find special items when destroying obstacles on your path to earn yourself upgrades and get edge over others. You win the game when the opposing players are defeated.

### Player Character

The player wears a blue denim miner overall and a mining helmet, every player has it's own color for their helm to make them look different and standout from one another.

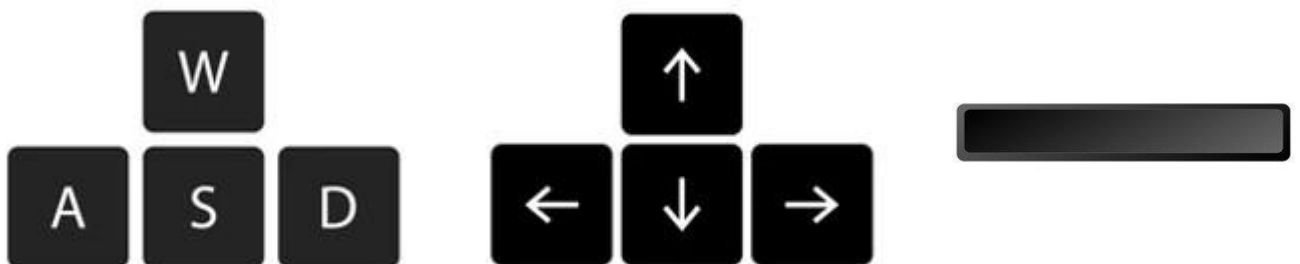


This Image is generated using GrokAI, I will design my character in GraphicScale based on this design that've made using GrokAI.

## Player controls

The game is 2D in top-down view. The player uses basic control using W,A,S,D or Arrow keys to go forward, backward, left or right, having the option to use both these controls

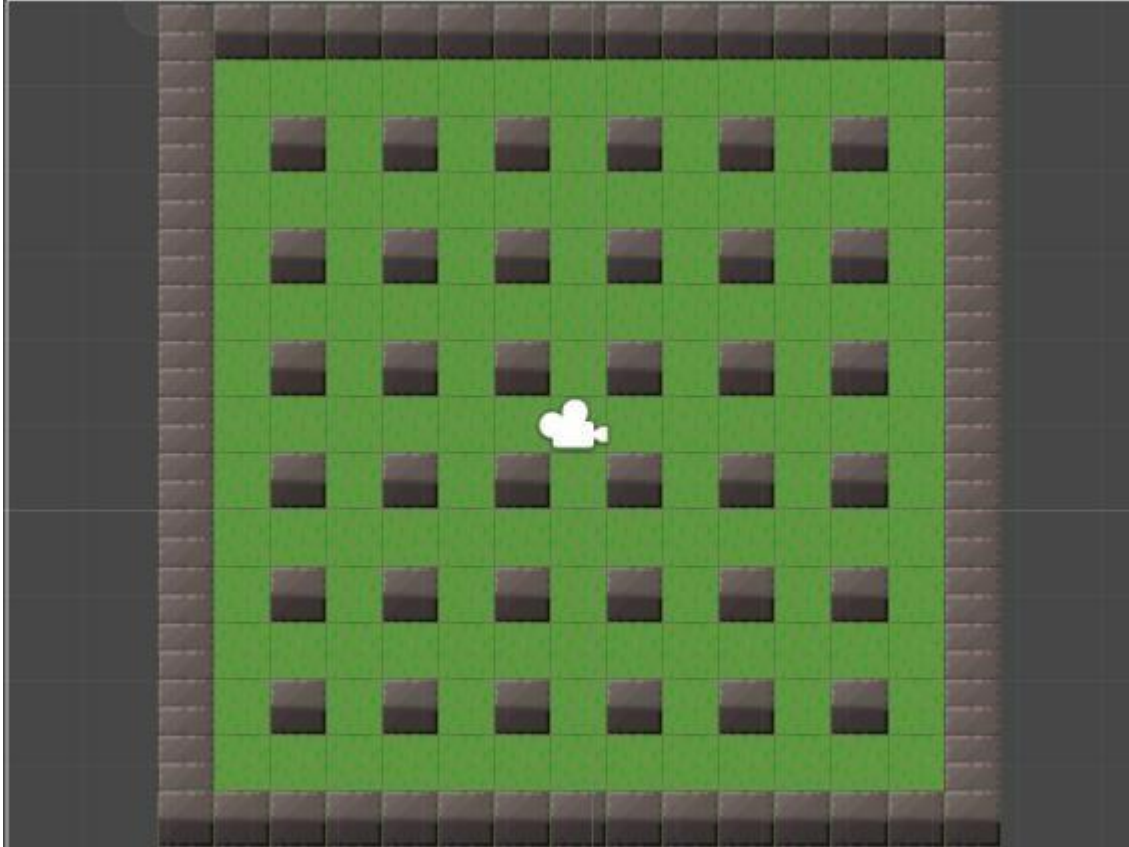
The spacebar is used for the bomb placement where the player can drop C4s to destroy destructible blocks or to eliminate opposing players.



## Game world

I based my game world on Bomberman because its maze-like environments are simple yet captivating, promoting strategic thinking and quick decision-making. Players navigate grid-

based levels with destructible and indestructible blocks in tunnels or caves like environment. This creates dynamic gameplay and endless level design possibilities. The retro, colorful graphics add nostalgic charm I aim to recreate Bomberman's engaging and fast-paced experience.



## Game Experience

The game experience in Tunnel blasters is fast-paced and strategic. Players navigate through maze-like levels, placing explosive C4s to destroy obstacles and defeat enemies. Each C4 has a countdown, so timing and placement are crucial to avoid getting caught in the blast. The levels are filled with both destructible and indestructible blocks, which create dynamic battlefields and strategic opportunities. Power-ups scattered throughout the levels enhance the player's abilities, such as increasing explosion range or allowing multiple C4 bombs to be placed simultaneously. The retro, pixelated graphics and simple controls make the game accessible and nostalgic. Overall, **Tunnel Blasters** offers an exciting blend of quick thinking, strategy, and action. To win the game the player has to eliminate all the opposing players.

## User Stories

**As a player,**

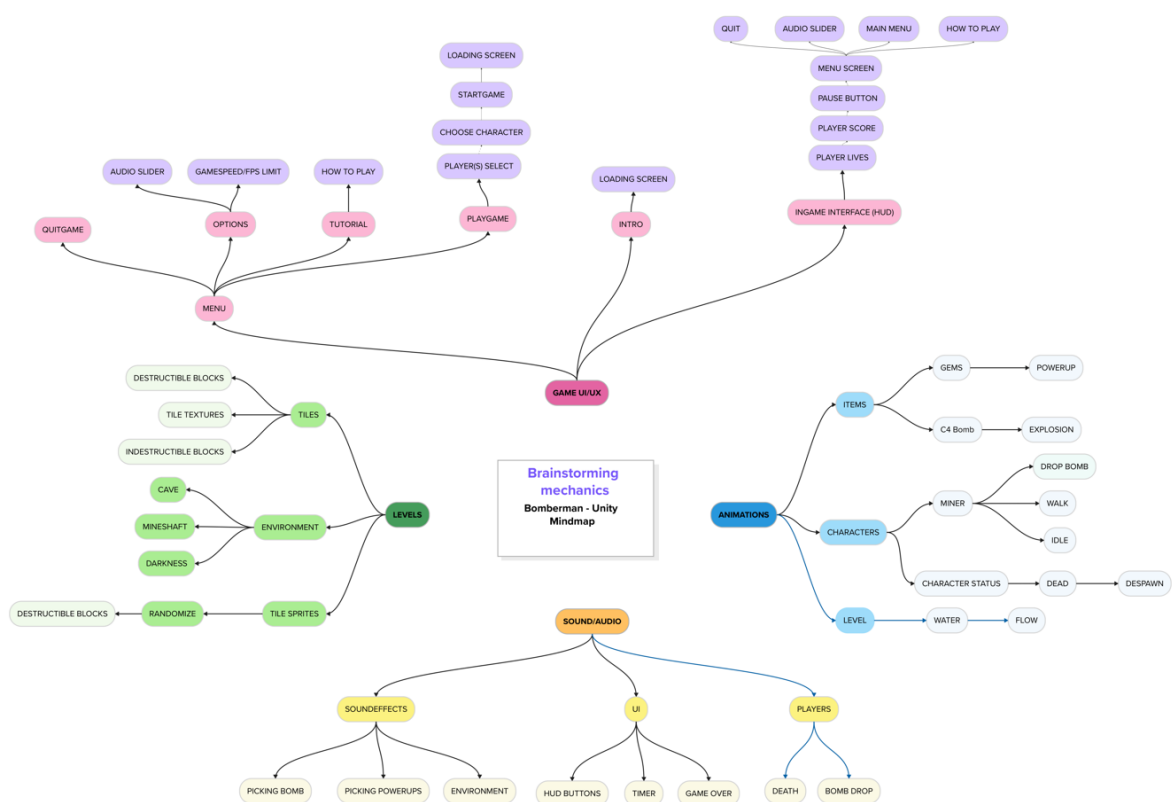
I want visually appealing and distinct character and environment sprites, so that I can easily recognize my character, bombs, and obstacles.

## As a player,

I want to move around in an interactive environment, place bombs and strategically destroy obstacles, so that I can engage in fun and competitive gameplay while avoiding hazards and outsmarting opponents.

## Game Mechanics

The game mechanics for the Tunnel Blasters Unity game project have been outlined in a mind-map that showcases four primary areas of focus: **UI/UX (Interface)**, **Animations**, **Sound/Audio**, and **Levels**. Each area is separated into specific components that contribute to the overall gameplay experience. Given the four-week development timeline, I have prioritized the most important features to ensure a polished and functional prototype by the end of the project.



Here follows an explanation on the key mechanics of the mindmap above that I would like to implement into my game.

### UI/UX (Interface)

- **Core Elements:** The interface includes menus (main menu, pause menu, player selection, and options), in-game HUD (score, player lives, and a timer) and a loading screen with an introduction.

- **Player Guidance:** A simple tutorial or "How to Play" section will teach players the core mechanics efficiently.
- **Minimized Scope:** I will focus on implementing the main menu, HUD, and a player selection screen to simplify the project and ensure quality.

## Animation

- **Characters:** The game will feature animations for character movement (walking, idle, and death), and item interactions like placing or picking up bombs.
- **Dynamic Elements:** Explosions, item drops, and level transitions will add life to the game world.
- **Prioritization:** I will develop only the essential animations, such as walking, bomb placement, and explosions, to keep the scope manageable.
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## Sound/Audio

- **Sound Effects:** Key sound effects include picking up bombs, explosions, and environmental sounds to immerse the player.
- **UI Feedback:** Simple sound cues for button clicks and menu navigation will improve user experience.
- **Prioritization:** Focus will be on sound effects for explosions, item interactions, and essential UI sounds to deliver an engaging experience.

## Levels

- **Environment:** Levels will consist of destructible and indestructible blocks, with simple textures and randomized layouts to increase replayability.
- **Themes:** The environment will reflect a mineshaft or cave aesthetic for a unique visual identity.
- **Gameplay Elements:** Power-ups and collectibles like speed boosts or bomb upgrades will be scattered across the level.
- **Minimized Scope:** I will develop one core level with randomized layouts and basic tiles to keep the project feasible.

# Requirements

## Must have

- Working controls
- Bomb placement
- Sprites
- Menu Screen
- Player Selection
- Ingame HUD
- Local CO-OP (One PC)
- Playable environment/Level

## Should have

- Tutorial
- Loading screen
- Collectibles/Pick-ups
- Animations (Idle, walking etc.)
- Different sprites to indicate different players
- Timer/Scoreboard
- Game Settings/options

## Could have

- Pause Menu
- Replay option
- Peer-to-Peer network multiplayer
- Sound effects
- Random generation for destructible blocks
- Multiple levels

## Won't have

- No Voice/Chats
- Background music

# Research

## Core Mechanics – Tunnel Blasters

### Core Mechanic

Players controls a miner sprite who will be moving around a grid and placing explosive C4 bombs. These bombs explode after a short time, destroying nearby blocks and other players. Players need to be careful to avoid getting caught in their own blasts and make sure to dodge bombs that are placed by the opposing players.

## Secondary Mechanics

Hidden in the destructible blocks are special items that make the player stronger. For example, some power-ups let you place more pomegranates, make the explosions bigger, or move faster. These help players overcome tougher enemies and obstacles.

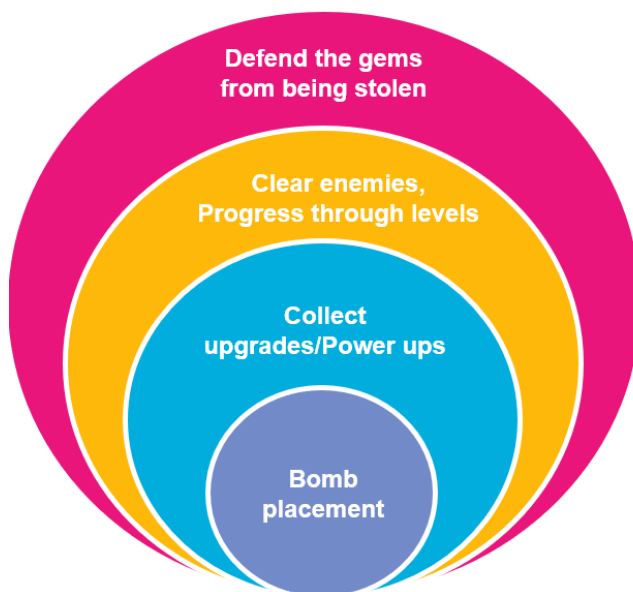
## Progression layer

To finish a level, players must defeat all the enemies, once they win the game will reveal a scoreboard and the total times a player has been eliminated during the match. Players will have the option to replay or load a new map.

## Narrative/Story Layer

The story is about Jack who is trying to save his gems from thieves who are trying to steal these valuable items from him. As players progress through the game, short scenes or introductions explain what is happening. Jack travels through different areas of his mineshaft, each with its own challenges, to defeat the opposing enemies.

# Core Mechanics of Tunnel Blasters



The core mechanic of a game is the activity a player most frequently does in a game.

The secondary mechanics involve the interactions that are less frequent in the game

The progression layer involves the way levels are built up and progression is communicated.

The story layer puts everything you are doing in the game into context.

By Understanding the key game elements of my game Tunnel Blasters is crucial for creating a game in Unity. The main activity of placing C4 bombs is simple yet requires strategic thinking, making it both engaging and easy to implement. Collecting upgrades adds variety and excitement, enhancing the player's experience. Completing levels by defeating enemies keeps the game challenging and competitive. A basic story adds context and motivation, making the

game more immersive. These elements ensure my game is enjoyable and engaging. This approach will help me build a fun retro action-packed game in Unity.

**Workshop:** Ideation , **Library:** Best, good & bad practices

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