

Group name: aMAZEd

Team members: Mateusz Guściora, Dominika Rzepka

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1. (5pt) Finish implementation of the final game version.....	33
2. (3pt) Conduct play tests (check: playability, intuitiveness, UX, usability according to Nielsen rules for games - link1, link2, link3).....	33
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LIST 1: DETAILED DESIGN (GDD)

1. General information:

- a. (working) **title** : aMAZEed™
- b. **genre(s)**: horror, survival, logical
- c. **target audience**: 16+
- d. **platform(s) and hardware requirements**: Unity, C#
- e. **monetization** (business model): per download

2. Theme and setting of the game (time and place)

- a. Locations (worlds, levels): Random worlds generated, horror style
- b. Lore
 - i. **Introduction (backstory)**:
Main character is entering the “cursed multidimensional maze”. It looks like an ordinary house.
 - ii. **main plots (plot arcs), then side plots**: going through different venues, worlds trying to get out of the maze that it seems... is alive. Only through solving puzzles and mini-games, one can get out.
- c. Characters (main, enemies, NPC intelligence):
Main: protagonist - anyone?, cursed maze
Enemies: leaving shadows; zombies? Maze-walls
NPC: random, rarely generated with venue

3. Gameplay and mechanics

a. goals, challenges, quests:

Goal: explore, and dare to finish the game. Only when you get some amount of points (which are collected by solving the puzzles) do you have a chance to finish the game. Otherwise, there is no exit; you are stuck in the loop, and you just level up

Challenges: before entering a new level you must run before shadow; When you are too long in one level, and you are not solving puzzles the enemies become more aggressive

Quests: (*ideas: sigil puzzle, matching puzzle pairs, flip a coin)
hidden rooms with more puzzles

b. interaction, controllers

Interaction, Controllers: mouse and keyboard

c. multiplayer (local/online, co-op/versus, single/split screen, PvP/PvE)

Local; player vs enemy

4. Game flow

- a. splash screens (mockup)

Screen of the concept art with the title "aMAZEed".



or



- b. cutscenes (cinematics)

Introduction Scene: Protagonist stands before the old house, takes a deep breath, and pushes the door. It creaks open, revealing darkness.

Level Transition Scene: As the player ascends each level, a brief cinematic of the protagonist hesitating before each door, depicting the increasing danger.

Final Scene: Escaping the mansion only to find it disappearing into mist, with the protagonist looking bewildered.

Narration/Dialogues:

- Protagonist's rapid breath that express fear, some screams.
- Ghostly whispers guiding or misleading the player.

c. start menu, pause/inventory/map screen, HUD ... (mockup)

Start menu:

Old, creaky door with options: 'Enter', 'Options', 'Exit'.

Pause: A torn diary page with 'Resume', 'Options', 'Main Menu'.

Inventory: Appears as an old backpack, with items shown inside.

Map: A map that shows only the room in which the user currently is, with their current location. When open doors, the other room is visible.

HUD:

Health: Displayed as a heartbeat line that fades when health is low.

Inventory: A quick select wheel.

Points: Hidden from the player. Only using one artifact can be seen as a number before the health line

d. maps

Maps: Randomly generated with each playthrough. With each level, the maze will be bigger, or harder to finish.

The stone maze with wooden doors that leads to different "rooms".

5. Scope of the project

- a. 2-person team (division of work)
- b. work schedule (preliminary, temporary, to be updated on an ongoing basis, at least 14 points (weeks), specific functionalities, not just milestones, to be settled later during the semester)

Deadlines:

11.10 - rough project idea; choosing the engine; first maze generation

18.10 - precise project idea; more advanced maze generation with doors and basic mechanic

22.11 - first playable game: adding right materials and assets; more advanced mechanics; splash screen; cutscenes; basic enemies; basic HUD

06.12 - alpha version: fix bugs; more advanced HUD; add sounds; add reactions;

20.12 - beta version: fixing next bugs

24.01 - gold master: prepare finish version of the game

6. Assets

- a. concept art, models, sprites, textures, animations

Main character: A young adult, 3D model with a torch.

Enemies: Ghostly/shadowy figures, 3D models, shadows.

Maze: Textures of stone walls, cobwebs, portraits; wooden doors.

- b. sounds, music, narratives, dialogues

Background Music: Eerie ambient sounds.

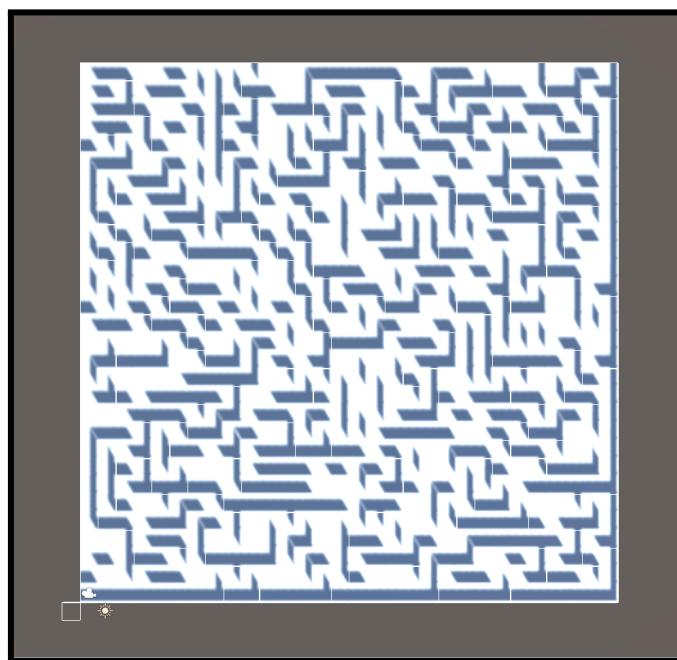
Sound Effects: Footsteps, door creaks, whispers.

Narration: Breathing, screams.

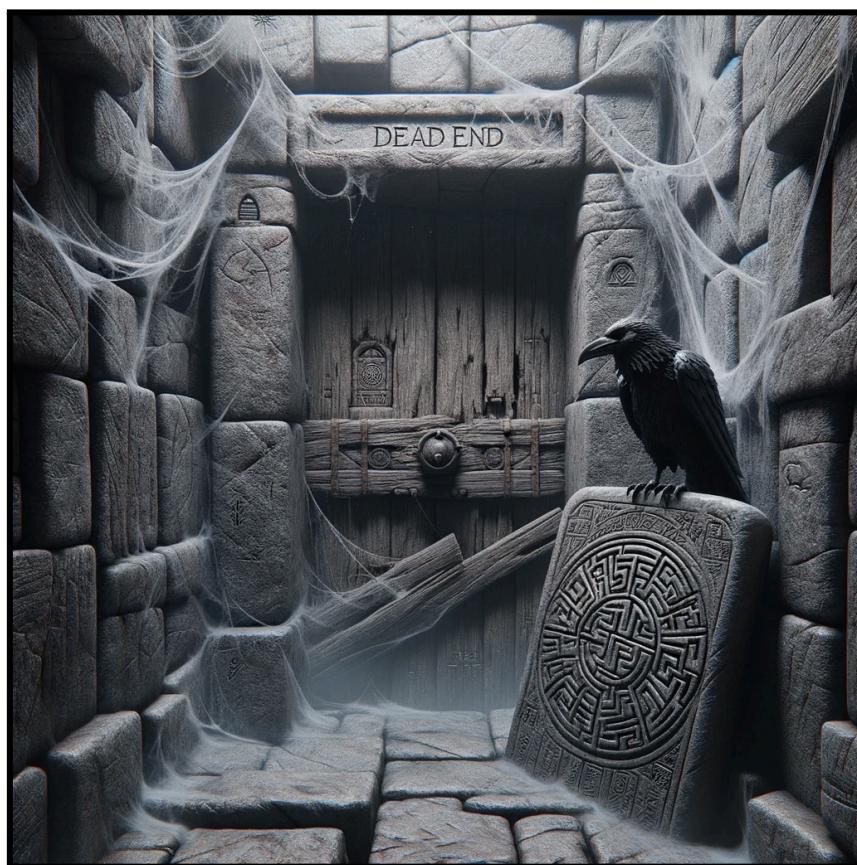
7. Prototype (“proof-of-concept”, working, selective)

- Basic maze generation.
- Basic character movement within the maze.
- Mini map showing the current room.
- Going through the doors
- Placing “paintings” that will be replaced later on with the puzzles

First maze generation:



Concept arts:



Ideas for unique rooms or all



Pause Menu screen:



Loading Screen:

Either one from above ones or no loading screen (loading of a maze generation)

Links and Assets:

<https://medium.com/geekculture/creating-a-cutscene-in-unity-aaec5042aaab>

Assets:

- <https://assetstore.unity.com/packages/3d/characters/robots/sci-fi-drones-90326>
- <https://assetstore.unity.com/packages/3d/props/horror-assets-69717>
- <https://assetstore.unity.com/packages/3d/props/interior/suitcase-3d-free-264886>
- <https://assetstore.unity.com/packages/3d/props/rust-key-167590>
- <https://assetstore.unity.com/packages/3d/props/outdoor-wall-lamp-259394>
- <https://assetstore.unity.com/packages/3d/props/tools/rusty-flashlight-122403>
- <https://assetstore.unity.com/packages/3d/props/tools/horror-axe-107507>
- <https://assetstore.unity.com/packages/3d/characters/humanoids/humans/realistic-fantasy-eyes-67861>
- <https://assetstore.unity.com/packages/3d/props/exterior/free-steel-ladder-pack-24892>

Character:

- <https://assetstore.unity.com/packages/3d/animations/basic-motions-free-154271>
- <https://assetstore.unity.com/packages/3d/characters/humanoids/humans/adventure-character-201384>

Enemies:

- <https://assetstore.unity.com/packages/3d/characters/humanoids/zombie-30232>
- <https://assetstore.unity.com/packages/3d/characters/humanoids/fantasy/skeleton-warrior-1-222338>
- <https://assetstore.unity.com/packages/3d/characters/hungry-zombie-99750>
- <https://assetstore.unity.com/packages/3d/characters/humanoids/fantasy/skeleton-pbr-animated-low-poly-30659>
- <https://assetstore.unity.com/packages/3d/characters/humanoids/skinless-zombie-226029>
- <https://assetstore.unity.com/packages/3d/characters/animals/insects/animated-spider-s-pack-9864>
- <https://assetstore.unity.com/packages/3d/characters/enemy-robots-134968>
- <https://assetstore.unity.com/packages/3d/characters/creatures/cyber-monsters-2-161380>
- <https://assetstore.unity.com/packages/3d/characters/creatures/mn-d-253748>
- <https://assetstore.unity.com/packages/templates/systems/puzzle-creator-add-puzzles-to-your-game-143274#content>
- <https://assetstore.unity.com/packages/3d/characters/ghoul-zombie-114531#reviews>
- <https://assetstore.unity.com/packages/3d/true-horror-clown-pbr-49389>

Environment:

- <https://assetstore.unity.com/packages/3d/props/exterior/rock-package-118182>
- <https://assetstore.unity.com/packages/3d/environments/fantasy/translucent-crystals-106274>
- <https://assetstore.unity.com/packages/3d/environments/stylized-hand-painted-dungeon-free-173934>
- <https://assetstore.unity.com/packages/3d/props/metal-door-5397>
- <https://assetstore.unity.com/packages/3d/environments/dungeons/decrepit-dungeon-lite-33936>
- <https://assetstore.unity.com/packages/3d/props/exterior/brick-fence-80062>
- <https://assetstore.unity.com/packages/3d/props/wood-set-pieces-33853>
- <https://assetstore.unity.com/packages/3d/props/wooden-storage-pack-54895>
- <https://assetstore.unity.com/packages/3d/props/tools/tools-wooden-boxes-185738>
- <https://assetstore.unity.com/packages/3d/props/wood-barrel-4427>

Others:

- <https://assetstore.unity.com/packages/3d/environments/3d-free-modular-kit-85732>
- <https://assetstore.unity.com/packages/3d/props/poly-halloween-236625>
- <https://assetstore.unity.com/packages/3d/environments/dungeons/simple-modular-dungeon-259641>
- <https://assetstore.unity.com/packages/3d/environments/rope-bridge-3d-222563>
- <https://assetstore.unity.com/packages/3d/environments/free-medieval-room-131004>
- <https://assetstore.unity.com/packages/3d/characters/creatures/creepy-pumpkin-monster-158098>
- <https://assetstore.unity.com/packages/3d/props/exterior/wooden-barricades-111243>
- <https://assetstore.unity.com/packages/3d/animations/mvn-sample-pack-15960>

Weapons:

- <https://assetstore.unity.com/packages/3d/props/weapons/vintage-rifle-western-model-211535>
- <https://assetstore.unity.com/packages/3d/props/guns/weapon-pack-makarov-pm-free-131599>
- <https://assetstore.unity.com/packages/3d/props/weapons/hq-kitchen-rusty-knife-83994>
- <https://assetstore.unity.com/packages/3d/props/weapons/sword-1-178752>
- <https://assetstore.unity.com/packages/3d/props/weapons/aged-medieval-weapons-free-207255>

Elevator:

- <https://sketchfab.com/search?q=elevator+free&type=models>
- <https://sketchfab.com/3d-models/simple-elevator-with-animation-770488a2f94a453fb90a7445bda63cd0>
- <https://sketchfab.com/3d-models/animation-1920s-style-elevator-2f2c594bebee41b6824bfc1bb63172d5>
- <https://sketchfab.com/3d-models/elevator-5710f9606049441ba1bc1ea6e58a00e2>
- <https://sketchfab.com/3d-models/elevator-221312f2fd7f47af8ba0003f4573f1dd>

For Backstory game:

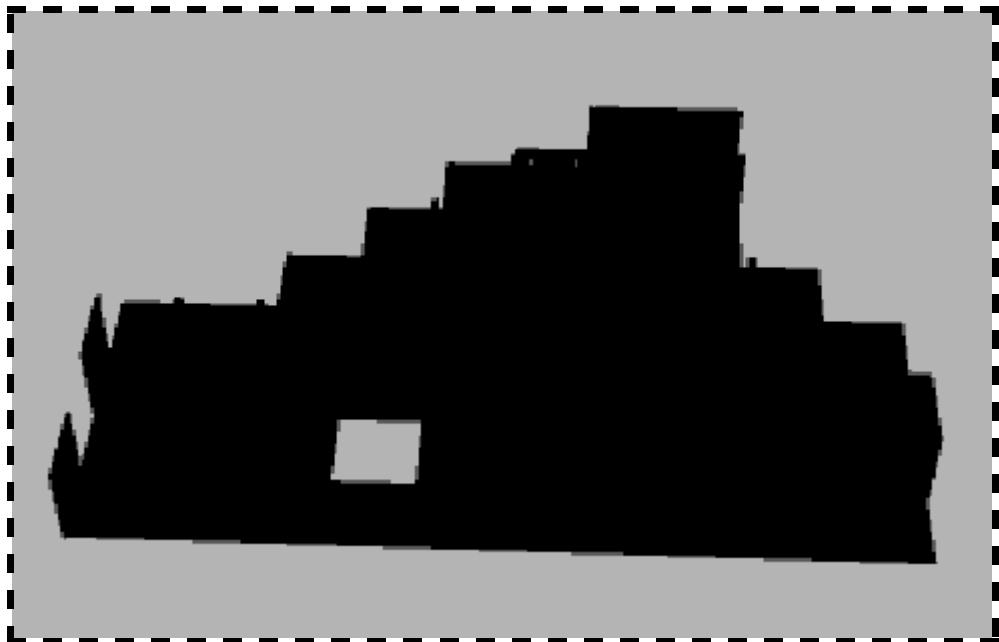
- <https://assetstore.unity.com/packages/3d/props/clipboard-137662>

Fonts:

- <https://www.dafont.com/theme.php?cat=110&fpp=200>

LIST 2: FIRST PLAYABLE

1. Screenshots from a game.



Screenshot 1 Loading of a game (generating of a maze)



Screenshot 2 First person view



Screenshot 2 MiniMap



Screenshot 3 Key-collectable item



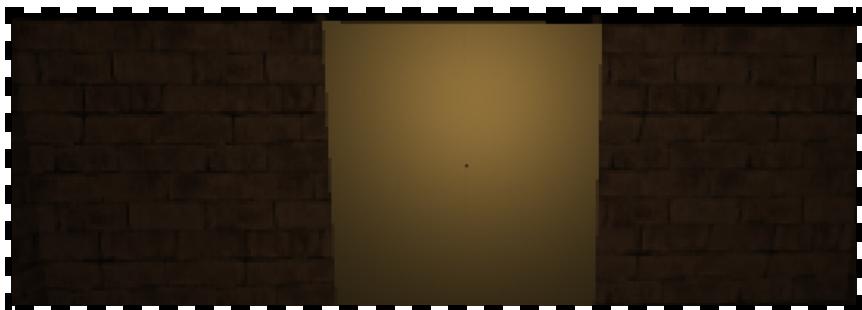
Screenshot 4 Extra assets-paintings on walls



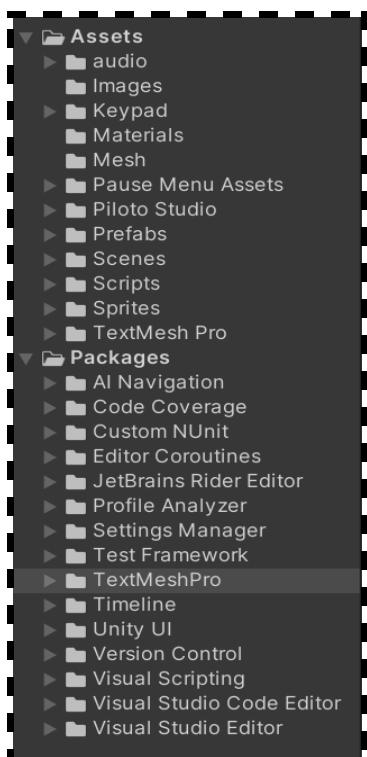
Screenshot 4 HUD - Health bar, Keys collection



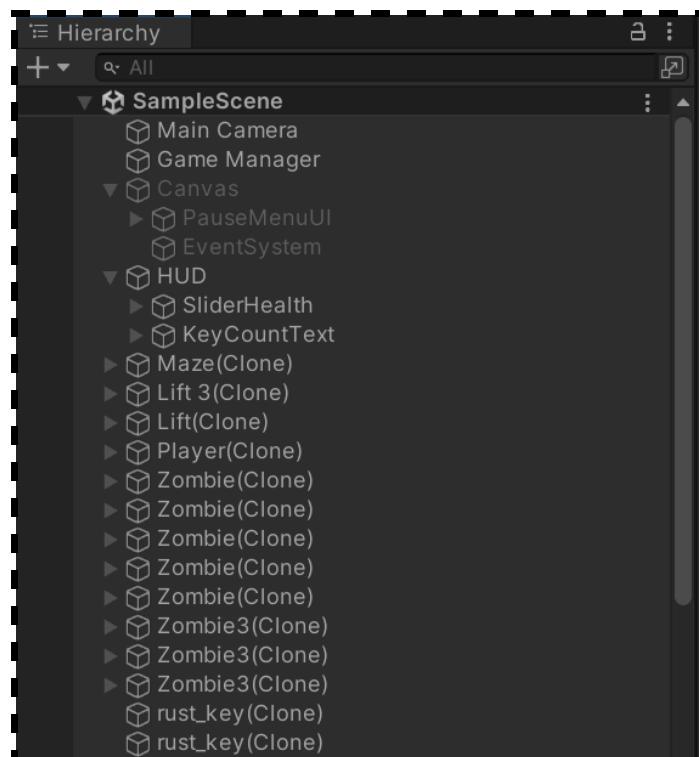
Screenshot 5 Elevator (entry to the Maze)



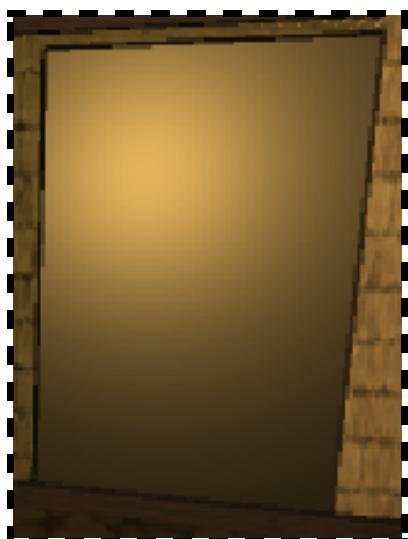
Screenshot 6 Elevator (exit to the Maze)



Screenshot 7 Project View in Unity



Screenshot 8 Hierarchy View in Unity



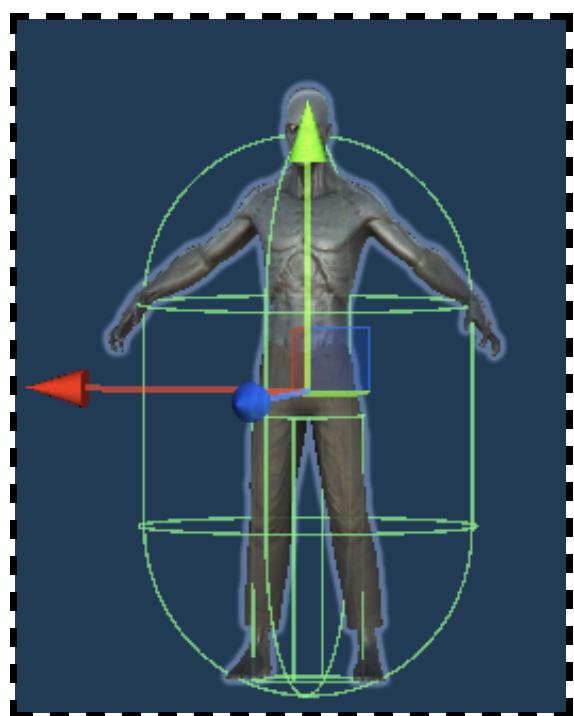
Screenshot 9 Door asset



Screenshot 10 path with open door



Screenshot 11 Zombie prefab view



Screenshot 12 Zombie1 prefab in Scene View



Screenshot 13 Pause Menu

2. Video Game Footage

[Link to Short Game Footage - aMAZEd](#)

3. Game build

[Link to Game Build folder - aMAZEd](#)

4. Project status

Current Development Stage: First Playable Version

Gameplay Overview:

- The player begins near an elevator entrance and navigates through a maze.
- Objectives include collecting keys, avoiding enemies, and reaching the elevator exit.
- Enhanced atmospheric elements with decreased lighting for a darker, more climactic feel.
- First-person view complemented with a real-time mini-map.

Technical Developments:

- Updated textures for doors and floors in the maze.
- Implemented animations for zombie movements and attacks.
- Players now take damage from enemy hits or close proximity.
- Enemy and key item spawning introduced.
- Enemy functionalities: walking, attacking, following the player.
- HUD implementation featuring a health bar and key collection indicator.

Game Mechanics and Features:

- Procedurally generated maze based on probabilities, offering unique gameplay.

- Retro walking mechanics and distinct maze aesthetics.
- Engaging storyline and main objectives.
- Inventory system for key collection.
- Pause Menu works by clicking “P” in a game. For this moment has two interactable buttons. Resume (or “P” does the same) or Quit both works.
- Development documentation includes screenshots, a 30-second gameplay video, and a game build folder.
- Current build logs player deaths in the console, with improvements planned for future versions.

Upcoming Objectives:

- Integrate health items similar to key mechanics.
- Develop and add various cutscenes, including level-ending sequences.
- Implement start and death screens.
- Further enhancements for the alpha version release.

LIST 3: ALPHA

1. Screenshots from a game



Screenshot 1 HUD



Screenshot 2 Pause Menu



Screenshot 3 Death Screen



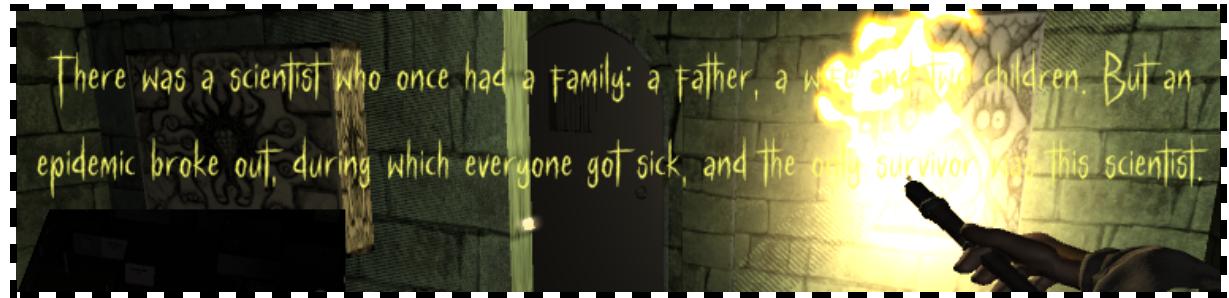
Screenshot 4 Death Screen with short menu



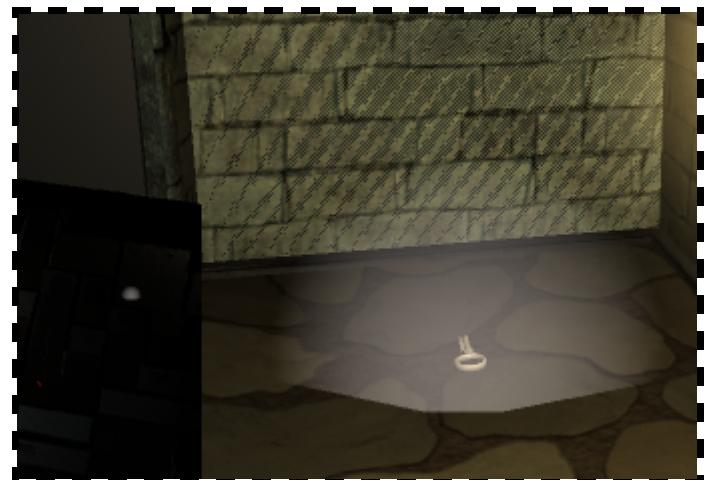
Screenshot 5 Collectable Health - Heart item - gives player some amount of health



Screenshot 6 Collectable Clipboard - consisting part of story of a game



Screenshot 7 One of stories display on the screen



Screenshot 8 Collectable Key



Screenshot 9 Entering the Maze (beginning of a game/a level)



Screenshot 10 Exiting the Maze/Level



Screenshot 11 "Collect all Keys"- Player can not interact with elevator yet



Screenshot 12 "Enter to continue" - Player can interact with elevator



Screenshot 13 Pause Menu - Save



Screenshot 14 Death Screen - Load

2. Video Game Footage

[Link to short Game footage, version alpha - aMAZEd](#)

3. Game Build

[Link to game build, version alpha - aMAZEd](#)

4. Project Status

HUD:

The HUD in our game provides essential information to the player. HUD consists of two elements.

Key Count Indicator:

- Displays the number of keys collected versus the total number required to complete the level.
- Presented in Screenshot 1.

Health Bar:

- Reacts to enemy attacks and items collected by the player.
- Heart Items: Picking up heart items increases health.
- Presented in Screenshot 1.

Pause Menu:

- Accessible by pressing the "P" key, the Pause Menu offers several options for the player:
- Save Game: Allows the player to save their current progress.
- Load Game: Players can load a previously saved game from this screen
- Quit Game
- The Pause Menu is illustrated in Screenshot 2.

Death Screen:

- The Death Screen triggers when the player's health reaches zero:
- Functionality: After a brief period, a short menu appears, offering options to proceed post-death.
- Restart Game: Selecting this option reloads a new maze at the same level as before.
- Load Game: If the player dies within the same maze, they have the option to load a previously saved game.
- Quit Game: Exits the game application.
- The Death Screen and its functionalities are shown in Screenshots 3 and 4.

Collectables:

This section presents the various collectable items in the game and their respective functionalities, as well as how they are represented in the player's inventory. The items include hearts, clipboards, and keys. Each serves a unique purpose in the gameplay experience.

Hearts:

- Players can collect hearts to regain health.
- Visual details are shown in Screenshot 5.

Clipboards:

- Collecting clipboards allows players to uncover more of the game's story. These items provide narrative depth and context.

- Their in-game appearances are depicted in Screenshot 6 and 7.

Keys:

- Keys are essential for progressing through the game. Players need to collect them to unlock the elevator, which is the gateway to completing levels.
- The design and usage of keys are illustrated in Screenshots 8.

Animation/Cutscene:

Our game introduces unique animations that serve as transitions between levels, enhancing the narrative and player immersion.

- Cutscenes are integrated to seamlessly connect levels and are prominently featured at both the beginning and the end of the level.
- Detailed representations of these cutscenes are provided in Screenshot 9 and Screenshot 10.
- At the start of each level, the player character arrives in the maze via an elevator. To progress, the player must navigate the maze to collect a required number of keys.
- To complete the level and exit it, the player must collect all required numbers of keys. When all the keys are collected, the player can enter the elevator and go to the next level. Only if the player has the correct number of keys, then the elevator can be interacted with. (Screenshots 11 and 12)

Load/Save:

This section presents the mechanisms for saving and loading game progress.. Saving is possible for the player either F5 keybind or in Pause Menu by clicking button - save. Players can load the save either from Pause Menu or after death in Death Screen. The functionality is depicted in Screenshot 13 (Save Options) and Screenshot 14 (Load Options).

Saving Game Progress:

- Players can quickly save their current game state by pressing the F5 key
- Alternatively, players can save their game via the Pause Menu. This is accomplished by navigating to the menu and clicking the 'Save' button.
- The saving process and options are illustrated in Screenshot 13.

Loading Game Progress:

- From Pause Menu: Players can load a previously saved game state from the Pause Menu.
- Death Screen: In the event of a player's character dying, the game offers the option to load a saved game from the Death Screen.
- Load game interface and options are presented in Screenshot 13 and Screenshot 14.

Issues:

- issue with saving full maze and issue with saving/loading within a game (in editor works for now)

(4pt) multiplayer option (list 1) or online player ranking (e.g. speedrun) or character configuration/development or other game specific functionality

Online functionality:

- ...

Upcoming Objectives:

- Improve saving and loading - in editor it works but in game it doesn't work due to folder path specified in code.
- Performance and optimization and Fix bugs of "entrance to the elevator", "walk", "source of light"...
- Audio
- Further enhancements for the next version release.

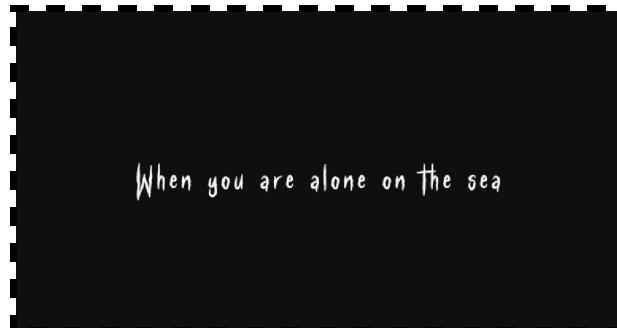
LIST 4: BETA

1. Screenshots from a game.

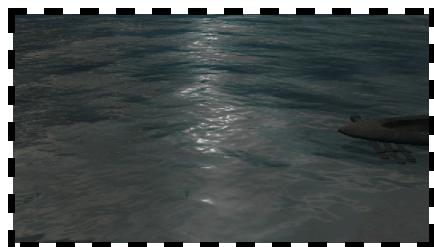
a. During this phase, implementation was continued. The game at this phase can be treated as a whole with an intro, story of a game (each level of a maze) and the end of the game, if certain conditions are met. The game can be played from start to end and therefore can be fully finished. However, small imperfections, errors and bugs exist. They are one of the priorities in the next steps of implementation. Other ideas that would enrich the game are also considered to be added. Below there are some more important screenshots from a game.



Screenshot Main Menu



Screenshot Intro1



Screenshot Intro2



Screenshot Intro3



Screenshot Intro4



Screenshot Intro5



Screenshot Outro1



Screenshot Outro2

Additionally, the game mechanism of burning out a torch was added, making the game darker.



Screenshot Burning out of the torch1



Screenshot Burning out of the torch2

Fixed mechanics of FastZombie were done that is not overlapping the player and 'FastZombie' Models. Also added visible maze shape, lifts, and doors for better orientation.

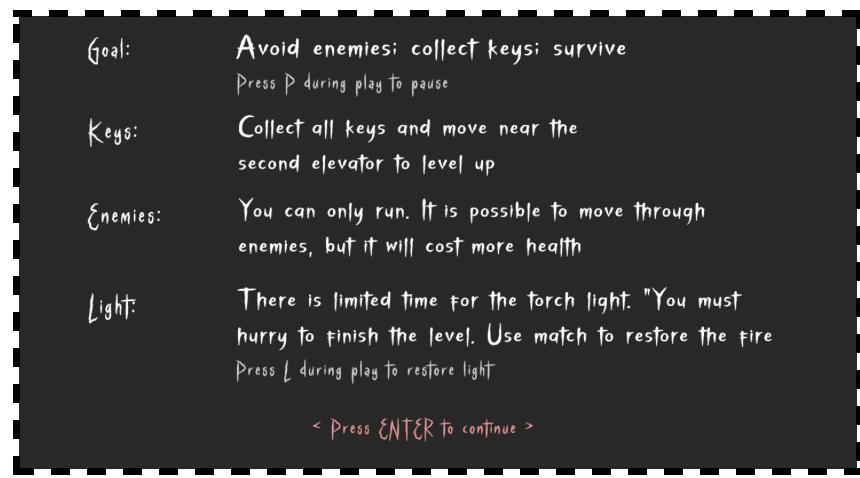


Screenshot Fast Zombie not overlapping player



Screenshot of minimap

- b. Game mechanics and game progression are not very hard to grasp, and the game itself is pretty self-explanatory. However, the game consists of a tutorial that has level 0 in a form of graph with basic instruction. Also, there are in-game tips in every level.



Screenshot Tutorial - Hints at level 0



Screenshot Tutorial - Hint1



Screenshot Tutorial - Hints2

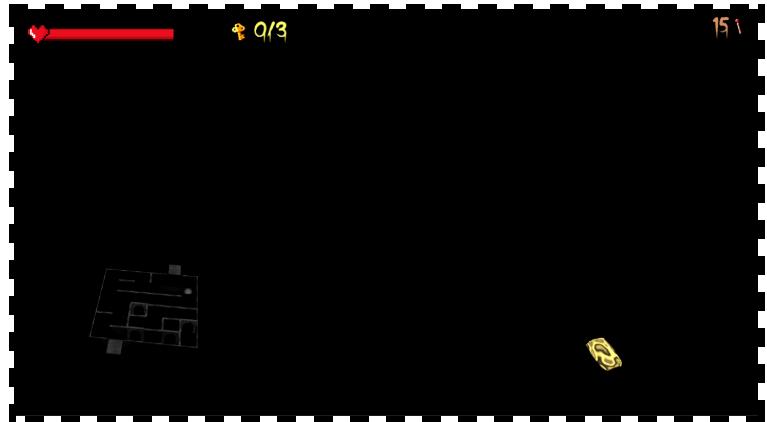


Screenshot Tutorial - Hint3

- c. Added the torch burning out mechanics. Each level has its own time of burning out. 10 seconds before the time is out, there is the sound of a ticking clock.



Screenshot - Torch burning out



Screenshot - Torch burned out

To restore the light, the user must collect matches. Each match add to the torch 1 minute of burning time. To activate the additional time of the light, press L. When the torch is burned out, the health will be taken, and the death screen will eventually appear. Only pressing L, and restore the light, will save the player.



Number of available matches



Lighter prefab

- d. Credit scene was added to the end of the game.



Screenshot beginning of credit scene

e. Mobile version on android was created using Unity and the android SDK and ADB software.



Screenshot Mobile loading



Screenshot Mobile APK



Screenshot Mobile Main Menu



Screenshot Mobile Main Menu vertically



Screenshot Mobile Gameplay1



Screenshot Mobile Gameplay2

2. Video Game Footage

https://drive.google.com/file/d/1P841i1Me_qUsbjQXK1NMveYofD6kadHD/view?usp=drive_link

3. Game Build

<https://drive.google.com/file/d/190yvDepclwRgvoO1zArkvlUWLAnkM4d/view?usp=sharing>

- a. Mobile-apk file (version 1)

https://drive.google.com/file/d/176c22yEZVvS-Mo-F8asz8CioNB8fFXm5/view?usp=drive_link

4. Project Status

Current Development Stage: Beta Version

Gameplay Overview:

- Tutorial and hints part was done
- Cutscenes were finished (ending)
- Main menu was created
- Audio was added to enemies, keys, intro, outro, main menu, pause menu, death menu, player.
- Mobile version was created on an android - APK file. Further changes in the mobile version must be performed in the next stages. End to the mobile version must be added. Walking Mechanism must be improved/added to the mobile version.

Technical Developments:

- Updated textures and graphics
- Level/Save was fixed and updated
- Audio implementation
- Fixed mechanics of FastZombie (second type of enemies) - previous problem with not colliding with the player. This behavior affected the visual side of experience. It was improved that way so the player and FastZombie are respecting personal space (not overlapping with each other).
- Other bugs/errors optimizations
- Added splash screen and tutorial screen

Game Mechanics and Features:

- Torch burning out mechanism was added. Burning out lasts (each level in different time). And the last 10 seconds of the torch burning out are accompanied by a clock ticking sound. When the light is out the life is decreasing and when not restore the player dies. The only way to not die is to expand the torch life by collecting matches that can be then used for restore (press L key).
- Torchlight is brighter in places where the player lights and where the player stands - the rest of the maze is dark.
- End of the game depends on the random number variable, when this number is equal to the level number
- Highlights the elements to better orientation in the mini map

Next phase objectives:

- golden version
- optimization and error/bugs fixing (especially enemies/player code)
- Mobile version fixes and updates

LIST 5: GOLD MASTER

Finish implementation of the final game version.

Implementation of the Game was finished. Test phase was deployed in the Gold Master stage. Furthermore some smaller bugs were discovered and fixed. Optimizations were also introduced.

Play tests + fixes:

Visibility of System Status: Ensure players are always informed about what is happening in the game. Test for clear feedback in response to player actions and appropriate updates to game status (e.g., health status, inventory).

Name of test	Explanation	Fix (if needed)	Result
HUD - health test	Health bar is changing when player interact with enemy	Not needed	Success
HUD - hearts test	After stepping on heart prefab, 20% of life is added to current health	Not needed	Success
HUD - keys test	When a user step on a key, it is added to inventory	Not needed	Success
HUD - lighter number update test	When a user step on a match prefab, the number of matches is increasing	Not needed	Success
HUD - lighter number show test	Before the start of the new level, the number of lighter is checked and shown	Not needed	Success
Message of all keys	When the player is near the doors and have not all the keys, the message "Collect All keys" is shown	Changed the display to full screen	Success, after fixing
Message of story	Display background story in a form of text when the user step on an item	Changed to array, previously stored in files	Success, after fixing
Message of keys	When the player is near the doors and have all the keys, the message "Press Enter to continue" is shown	Update the distance from the elevator doors to smaller	Success after fixing
Showing time of lighter number	When the next level is starting, the starting light time is shown	Changed the text to: "Default time", for better understanding for user	Success after fixing
Showing level number	When the next level is starting, the correct level is showing with the starting light time	Not needed	Success

Match Between System and the Real World: The game should speak the players' language. Test for elements like intuitive symbols, familiar conventions, and logical narrative progression.

Name of test	Explanation	Fix (if needed)	Result
Language	For now, only English is available for player	Fixed misspelling	Success
Symbols	Keys - for collection Heart - for health Match - for restore light	Not needed, the symbols are understandable	Success
Tutorial	After the start cutscene, when user starts the game there is the tutorial screen with the basic concepts	Added more information for the user, update the hide mouse function	Success, after fixing

User Control and Freedom: Players should have control over their actions. Test for the presence of features like pause, save, or exit options.

Name of test	Explanation	Fix (if needed)	Result
Pause screen - pause	Pause the gameplay when the pause screen is display	Not needed	Success
Pause screen - save	When press save, the user position in the maze, current health and the number of keys are saved	Not needed	Success
Pause screen - load	When press load, the previously saved data is load	Not needed	Success
Pause screen - quit	Go to the main menu	Not needed	Success
Death screen - load	When user died, there is an option to redo from the saved point	Fixed the position of the player	Success after fixing
Death screen - restart	Restart the level when died	Not needed	Success
Death screen - quit	Go to the main menu	Not needed	Success
Main screen - quit	Quit the game	Not needed	Success
Main screen - new game	Starting new game	Not needed	Success
Main screen - continue	Continue started game	Not needed	Success

Consistency and Standards: The game should follow platform conventions and be consistent in its design. Test for uniformity in controls, menu layouts, and in-game terminologies.

Name of test	Explanation	Fix (if needed)	Result
Rooms	rooms colors are always the same	Not needed	Success
Control	There are two ways to control: WSAD and arrows to walk, and the QE or mouse for rotation.	Changed the QE rotation to move while rotating	Success
Menus	Clear layout of all the menus	Small fixes	Success
Constant terminology	Use the same words for describing an item	small fixes in texts	Success

Error Prevention: Design the game to prevent errors from occurring. Test for clear instructions, confirmations for critical actions (like overwriting save files), and safeguards against common player mistakes.

Name of test	Explanation	Result
Overwriting save files	Overwrite save file is good for our game and is not an error or bug	Success
Explanations	All the keys are described in tutorial and in the pause menu	Success
Hidden functions	There are no hidden functions of the game, so user can not ruin it, by clicking buttons	Success

Recognition Rather Than Recall: Make objects, actions, and options visible. Test whether players can navigate the game intuitively without having to remember information from one part of the game to another. This point will be tested next week. We have further testing plans that will be performed by a bigger number of students. For us, it is intuitive and straightforward.

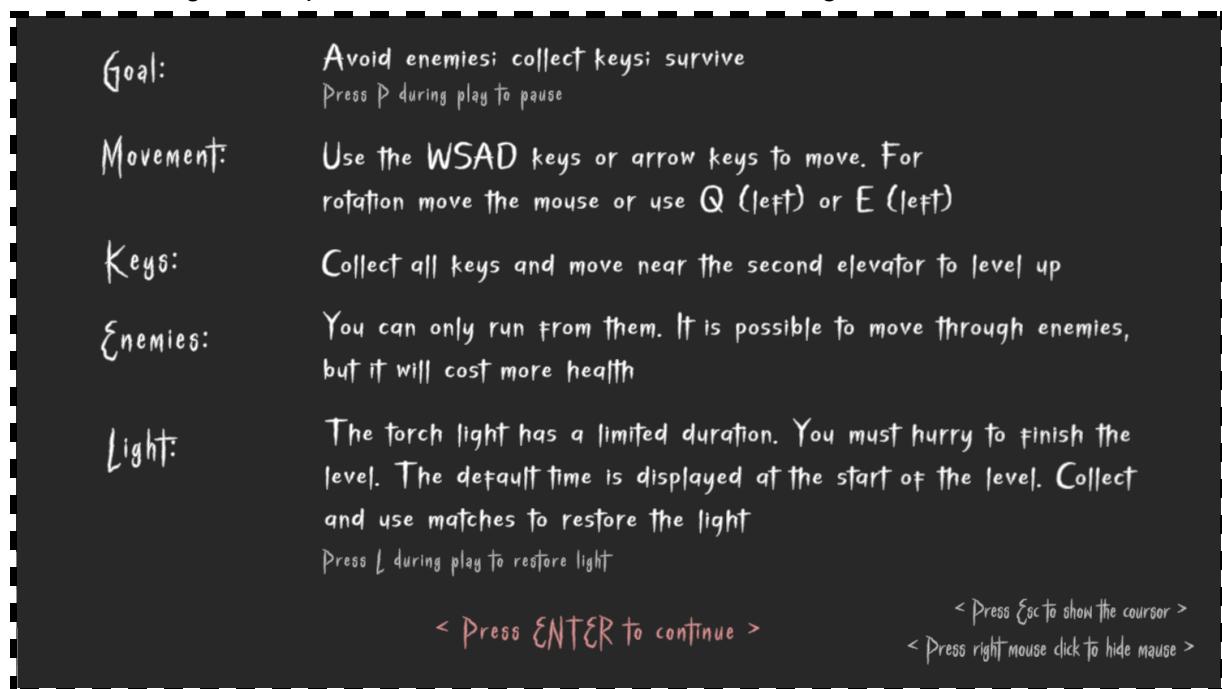
Flexibility and Efficiency of Use: The game should cater to both new and experienced players. Test for adjustable difficulty levels, customizable controls, and shortcuts for advanced players.

Name of test	Explanation	Fix (if needed)	Result
Level difficulty	The levels are generated randomly, and the game is getting harder on the higher level.	Small updates of the level, make it smaller for better testing and for performance	Success
Controls	As said before WSAD, arrows, QE and mouse. It is the basic movement available in most of the games	Not needed	Success

Aesthetic and Minimalist Design: Game interfaces should not contain irrelevant information. Test for clutter-free screens and ensure that every element serves a purpose. Every level contains only relevant information. The information like: “Collect All the keys” is also important to remind player of the importance of getting the required amount of collectibles, which is generated randomly in higher levels.

Help Users Recognize, Diagnose, and Recover from Errors: Error messages should be clear and offer solutions. Test how the game communicates errors to the player and guides them to resolve the issue. There should be no critical errors visible for the player. All of that was fixed during the testing procedure.

Help and Documentation: Although the game should be usable without documentation, help should be available and easy to access. Test for the presence and quality of tutorials, FAQs, and in-game help. The tutorial and hints should be enough for the user.



Screenshot 1: New look of tutorial

During the testing, we discovered a “hidden” bug that was crushing the whole game. The problem was that when the player saved the location in a bigger maze than it is now, and tried to load the parameters, the game was crushed. The location was outside the maze. To handle this, the correct if was added as well as an error screen. Now, when the saved coordinates are inaccurate, the message of error will be shown.



Screenshot 2: Error message

Also, the visibility of keys on the map was added. Previously, player knew only the location of the keys in bigger rooms. Now, the prefab with yellow halo is floating above the maze and highlighting where the key is. It is not visible to the player in the first person view. Only to the main camera.



Screenshot 3: Keys floating above maze

Another thing that was fixed is the correct order of Canvas. Previously it was in one sort order. Now the Pause screen will be above everything, and the messages will not collide with the buttons.

Requirements for maintaining the game

- Further Tests
- Performance Optimization over time of new technologies
- Continuous Monitoring and Bug Fixes: Tracking bugs and gathering feedback
- Regular updates (once a year) and content release (once a year)
- Uploading to Hub for example Steam, Unity and creating community engagement and support

- Security Updates
- Legal and Compliance Updates
- Analytics and Feedback analysis
- Promotions activities and marketing
- Monetization - at this time there is no planning on making the game paid but if that will change, a strategy for financials must be deployd

Percentage of third party assets/code snippets used vs. your own contribution

- Percentage of third party scripts: 5%
Almost all the scripts are written by us. The only thing that is from the internet are some of the generation of the maze scripts.
- Percentage of third party assets: 90%
Assets are used from Unity Asset store and the side sketchfab.com. These are free assets for use.
- Percentage of third party animations: 60%
Most of the animations that are used in the game were used from free tools. The animation of the doors, fading effects and texts was made by us.

Video Game Footage

00:08:48 gameplay:

<https://drive.google.com/file/d/1872NallLavxpyq1TMmk85m2JTWb2CTc/view?usp=sharing>

Game Build

<https://drive.google.com/file/d/1QliHsf22HddNXcTNjlxwqJnhGVhgHkCt/view?usp=sharing>

Project Status

Current Development Stage: Gold Master

Gameplay Overview:

- Fully playable

Technical Developments:

- Fully playable without major bugs that could prevent any functionality

Game Mechanics and Features:

- Fully playable with a major part of planned features, implemented.

Next objectives:

- Large Scale Tests on school students
- Maintenance