



Final Year Project Proposal –
By Paul J Harper

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DUNGEON OF ØMEN'S

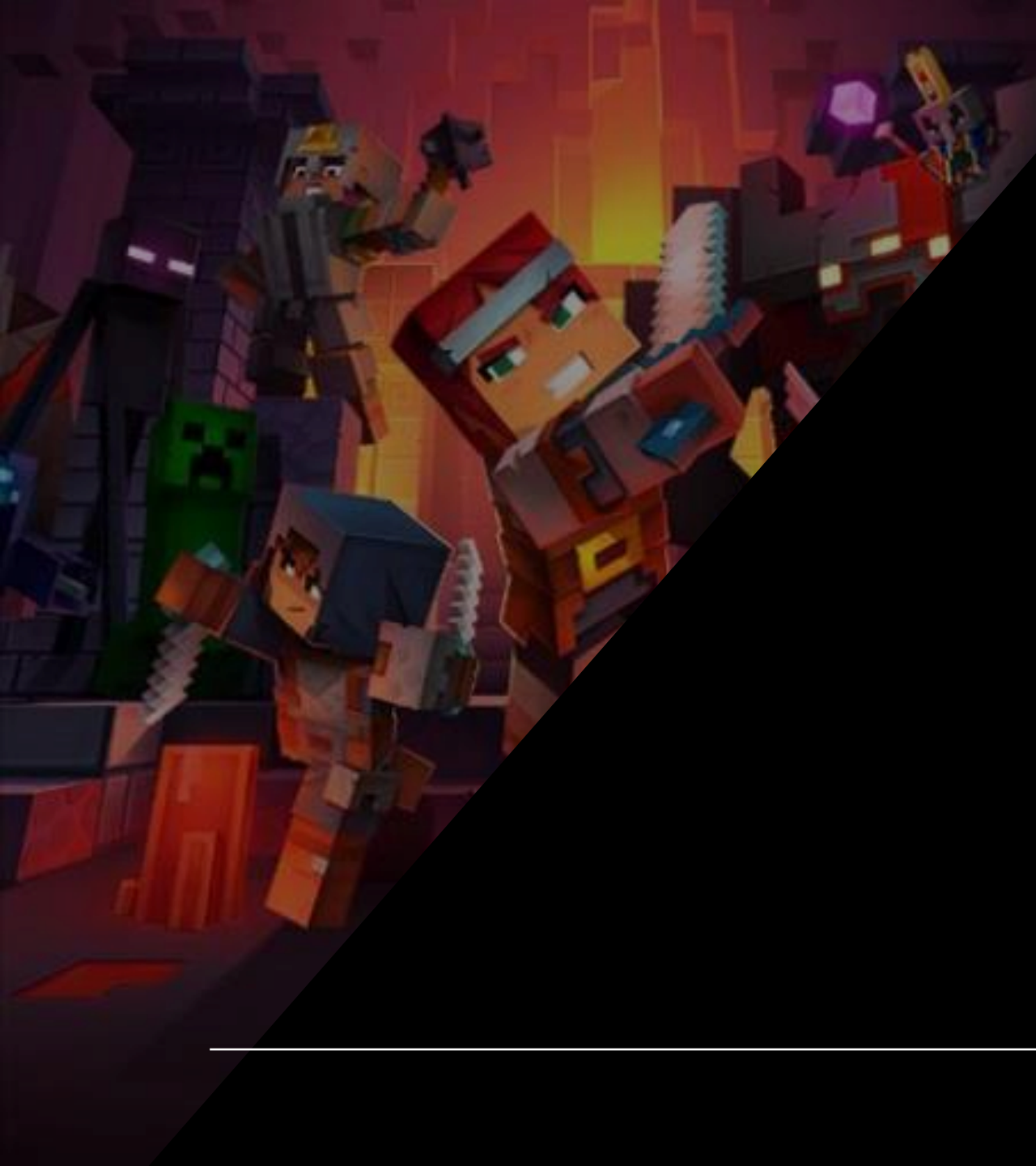
OVERVIEW

Dungeon of Omen's is a fun fast action dungeon crawler that takes inspiration from classic games like the Diablo series and the more modern Minecraft Dungeon's.

The game will have the player fill the boots of a noble hero descending into the dark depths of ruins long forgotten in search of glory and treasure, this will involve the player hacking and slashing their way past hordes of enemies searching for loot to grow stronger and dive deeper into the unknown to slay evil.

Dungeon of Omen's will have several playable levels each with their own theme and design that the player can experience, while hacking their way deeper into each dungeon the player will find better loot and weapons to help them fight the seamlessly endless hordes of evil that fill the dungeons.





MOTIVATION/RATIONAL

When originally planning out my FYP I had the intentions of creating a game that I could focus my skills as a level designer while creating a set of simple gameplay mechanics that work together to keep the game fresh and entertaining, with this in mind I understood my game would be aimed at a young audience and should be easy to learn this meant keeping gameplay mechanics simple in order to not make my scope for the project too large for the time I have as well as appealing to a wider audience as I intend on creating a product that most people can pick up with no knowledge of the mechanics of and be able to play and enjoy.

When looking for inspiration and ideas for my FYP I started by looking at a local game studio that I would like to work for after my studies, I took to looking at what games Double Eleven had worked on recently and found that I enjoyed playing Minecraft dungeons, although when playing I felt that there were some areas of the game that I would like to try and improve upon within my own dungeon crawler for FYP.

A large part of why I want to create my FYP the way I have intended is to show off my skills within several areas as a designer while creating a project that can be used within my portfolio for future employers, with this project I aim to mainly show off my skills as a level designer as I wish to create several levels that each work with the gameplay mechanics I intend to implement such as AI and combat, each of my levels and the areas within them will show off my understanding and knowledge of both level design and gameplay mechanics as this is expected of me within the industry and I believe this will demonstrate this within my product.

A game genre that I have enjoyed extensively would be dungeon crawler games although this is a genre, I rarely see appear on the market I find myself wanting to create my own dungeon crawler that captures the feeling of fighting off hordes of enemies with intense fast paced gameplay and the sense of joy when finding a hidden chest or loot that increases your odds of survival, games such as the classic Diablo series came to mind when looking for inspiration for how I want my FYP to turn out.

MOTIVATION/RATIONAL

I took the time to research into job listing from Double Eleven for a level designer position to see what they would look for within a level designer and what skills they should possess, after looking into this I made careful decisions of how I wanted my FYP to end up as I wish to create a product that I can show off to industry and place on my portfolio for future employers to see when they look at my work.

I have decided to create a dungeon crawler style game for my FYP as I believe this style of game will best show off my capabilities as a level designer along with showing my ability in planning out and designing gameplay mechanics, the overall goal for this project would be to demonstrate and highlight my skills as a level designer.

During my research I made some decisions on how I wanted to approach creating my FYP and found I needed to keep my scope small to create my product within the timeframe given to me.

 Double Eleven

Level Designer

We see ourselves as a new civilisation of people emerging to make the world of gaming better. We're a different breed of games company - we do things our own way in our own style, not necessarily following what's been done before.

Our people are at the heart of our evolution and we nurture them to be their best. Without them our vision would fail.

We strive to avoid crunch, overtime is optional and always paid, and we offer flexible working hours to allow you to enjoy a normal family life whilst still working on great gaming titles. Most recently, we helped to bring Minecraft Dungeons and Rust: Console Edition to millions of players around the world.

We're growing rapidly and as a result we're looking for a Level Designer to join our studio in Middlesbrough (UK), home to both coast and countryside (and one of the cheapest places to live in England!) As a Level Designer at Double Eleven, you'll take part in devising and building the narrative, locations, experiences, and encounters that will capture our players' imaginations, test their skills and surprise and delight them in unexpected ways.

Initially you'll work remotely due to the Covid-19 pandemic and when it's safe for our team to return to the studio, you'll set up camp at our HQ in Middlesbrough, UK. Currently we're working effectively remotely and we continue to assess the Covid-19 situation, with the safety of our staff as our top priority. We're still actively recruiting and onboarding new staff and will provide you with everything you need to join remotely.

Strictly no agencies (sorry guys!) and we're unable to sponsor a visa for this role. We can support UK relocation and have a dedicated People team on standby to assist you and your family with every step to us.

WOULD YOU ENJOY...?

- Helping to create very successful games
- Being part of amazing teams working on multiple AAA titles
- Being trusted to work independently and proactively to the highest standards
- Working with experienced teams across the industry

[Apply for this job](#)

[Link to this job](#)
<http://doubleeleven.peoplehr.net/Pages>

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Location

Middlesbrough, UK

Department

Design

Job Title

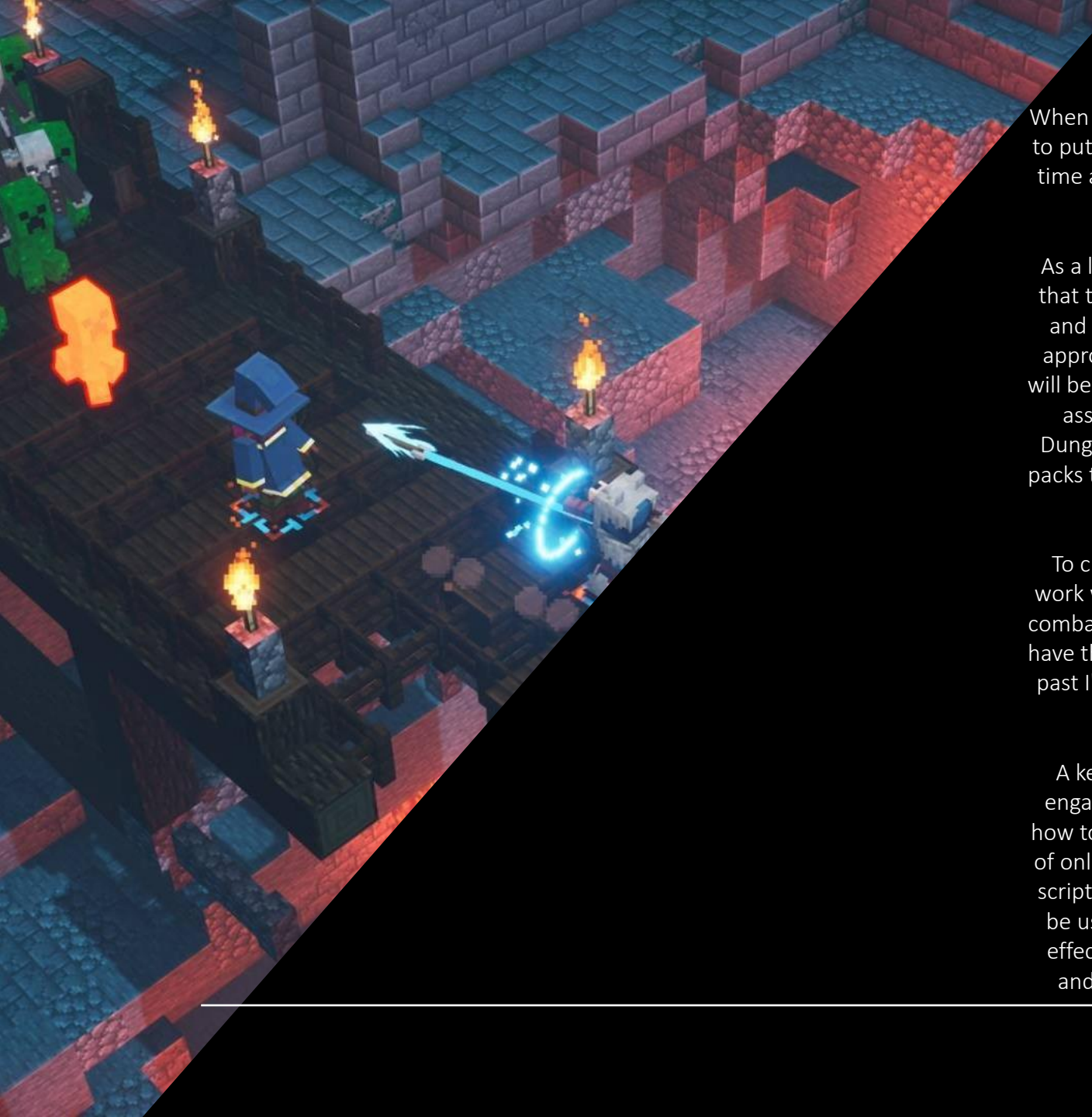
Level Designer

City

Middlesbrough

Country

England, UK



TECHNICAL OVERVIEW

When initially planning out my FYP I took into consideration the risks of how much I wanted to put into the project and where I wanted to focus my skills, this meant I needed to take time and consideration into what areas of the project I would focus on and priorities as to not over scope and not deliver on my intended product.

Level Design

As a level designer I my main goal is to create interesting environments within the project that the player will be able to experience and enjoy though both the environments design and the game play and thought put into the environment, with this in mind I decided to approach the level design within my project by creating several different levels the player will be able to select and play from the game's main menu, I will create these levels using an asset packs I have purchased from the unreal store these asset packs are the Polygon Dungeon pack and the Polygon Dungeon Realms asset packs I intend on using these asset packs to build my levels as well as give my FYP its art style this way I can focus on prioritizing the level design.

AI mechanics

To create my games AI I have been researching into way to create believable AI that will work well within the game and react accordingly to the players actions such as engaging in combat from both melee and ranged, I would also like my AI to feel more realistic as I would have the AI wander around and search for the player when they lose sight, luckily within the past I've had experience in creating AI with Unreal Engine's behavior trees and believe this method will work perfectly to help create my games AI system.

Combat system

A key element within my FYP will be the games combat as the player will be constantly engaging in combat with several enemies at a time for this, I researched a several ways on how to make engaging combat for a hack and slash style dungeon crawler and found plenty of online guides and videos on different ways that I can use Unreal Engine's blueprinting to script several simple combat mechanics into my FYP along with these mechanics I will also be using animations from Mixamo alongside side this I've researched into creating visual effects within Unreal Engine 4 as I believe this combination of simple combat mechanics and the emphasis on impact will create a fun and engaging combat system for my FYP.

TECHNICAL OVERVIEW

Technical decisions

During the research stage of my FYP I have made several decisions on how I want to approach creating each element of my FYP some of these decisions include my approach on how I want the games combat system to work, I aim to create a set of simple gameplay mechanics the player will be able to use such as a light attack, heavy attack, dodge, throwable and the ability to pick up and use items such as other weapons or health potions, these mechanics alone would be enough for basic combat within my project although with the use of Unreal Engines visual effects along with animations I intended to make the combat feel more engaging and rewarding to the player for landing a strike on an enemy.

Originally when planning out how I wanted to show my skills off as a level designer I planned for the levels within the project to be randomly generated although after extensive research into this area decided to make this a stretch goal and make the levels by hand with assets I had purchased, I believe this was a good decision as this will not only save me time and allow me to focus my attention into other parts of the project but will also allow me to plan out and test level more effectively and get better feedback on my level design rather than the games randomization.

Areas of research

When working on the project I will first start with the players mechanics such as the movement and the basic combat mechanics, everything that is needed from the player will be made with Unreal Engines blueprinting script, once I've finished with the players movement and controls, I will need to research how to apply animations to the player model to give my projects characters their own movement and attack animations once I done this to the player character with animations found online the process should be the same when applying animations onto the other humanoid enemies within the game.

The major portion of my efforts will be focused on creating the games AI and making sure that it works with the levels that I intend to create during the process of the project, with my experience within Unreal Engine and using behavior trees I have found that I will be able to create functionally AI that works well within my FYP although because of the difficulty when creating AI in previous projects I will prioritize getting the AI done early as possible within the project to avoid issue later down the production line.

I intend on creating a basic set of UI elements such as a game menus and a basic HUD to display information to the player using widgets within Unreal Engine to support my games style and theme.

Testing research

During the production stage of the project I intend to have other students play my game levels to gather feedback on each area of the games elements to test to see how anything can be improved on based on given feedback.

ADDITIONAL RESEARCH

While researching for my FYP I also found several talks from GDC along with some books that I have found useful and will be reading during the creation of my project.

Within this additional research I have found ways that I can approach my level design alongside information on how to make sure my product has a steady curve and that gameplay mechanics and level design flow together naturally, topics discussed within this research will be taken and applied into my project as well as extensive testing to make sure my product is as polished as possible.

Designing Radically Non-Linear Single Player Levels – Aubrey Serr

A GDC talk on how to create none liner levels this talk covers the techniques and methods on the flow and pacing of creating games levels

Ten Principles for Good Level Design – Dan Taylor

This GCD talked covered a wide range of principles when creating a game from the ground up covering serval areas as a level designer I aim to approach carefully and with thought and preplanning such planning out my levels flow and design and testing gameplay mechanics thoroughly, this talk also covered in high detail the things to consider within the production pipeline.

Environment Design as Spatial Cinematography: Theory and Practice – Miriam Bellard

A GDC talk covering the importance of cinematography and environmental design this talk further covered the importance of how the levels are laid out and what the player can see at a given time as these elements will give the project an immersive feel when done correctly in regard to the level design.

Level Up The Guide To Great Video Game Design – Scott Rogers

This book covers everything to do with creating a game from scratch from methods to make your game more fun and interactive to tips on how to approach creating a game as a designer I find this book useful when planning out game mechanics and other elements of my project.

A Theory Of Fun For Game Design 2nd Edition 10th Anniversary – Raph Koster

Within this book I found a lot of interesting research material as the book covers the theories on science on what makes a game fun and lasting.

Unreal Development Kit – Richard J Moore

Within this book I investigated areas of Unreal Engine that I was not familiar with and found useful information to help understand these areas of Unreal Engine further giving me conference in my ability's when approaching the project.

ETHICS RESEARCH

During my research I investigated the ethical risks of my FYP and made sure to address any issues or concerns regarding my project some of the first ethical concerns I found within my project was the use of asset packs to build the games levels and stand in as the character models, although these assets are not my own, I believe if I reference the use of these assets packs and make mention of this no issues should rise.

When researching further into how I wanted to plan the smaller details of the game to look I found that a concern I found with a lot of fantasy games the use of fantasy races dose rise a concern as I only have so many character models to stand in as an enemy within the game, to avoid and ethical issues I have decided as a base enemy type I will use character models such as the ghoul's and orcs as the games enemy's as both these races will rise no concerns with having them as the enemy types.

With my FYP I intend to aim towards a younger target audience from ages ten and up for this I need to assure when creating my project, I avoid the use of things such as blood and swearing along with keeping the gameplay fun for older audiences, I believe that the asset packs am using for my FYP will help avoid any issues within this area as this will give the project an art style that will appeal to my target audience.

Overall, I believe I have addressed any ethical issues and concerns that might come with my FYP project as I will take caution with my design choices when approaching creating the project along with properly referencing my inspirations and any research materials used during the creation of the project.



PROJECT DELIVERABLES

Within my FYP I aim to showcase my skills as a designer with the main focus of my project being towards level design and showing off my skills within this field as I aim for my FYP to be a project I can take on to show employers.

Deliverables

- 3 levels each themed with their own difficulty and style
- Combat mechanics that adds to the projects enjoyability
- AI created with Unreal Engine's behaviour trees that feel believable engaging the player in both combat from ranged and melee and being able to actively search for the player when out of site
- UI menus such as a main menu, pause, controls, options etc along with HUD elements
- Animations working along side the combat to create a more immersive combat system
- Special effects added to the games character models during combat adding to the immersion

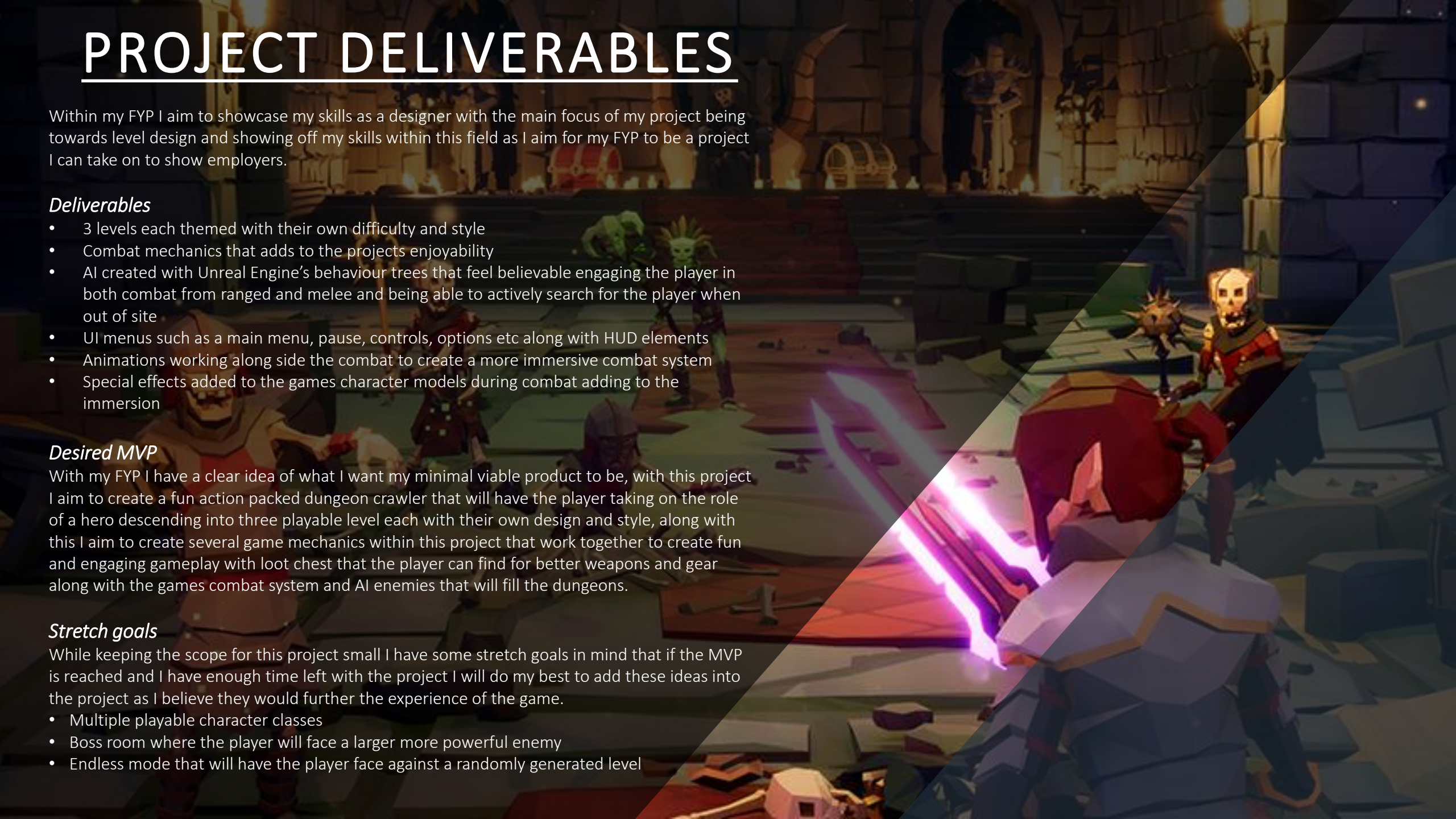
Desired MVP

With my FYP I have a clear idea of what I want my minimal viable product to be, with this project I aim to create a fun action packed dungeon crawler that will have the player taking on the role of a hero descending into three playable level each with their own design and style, along with this I aim to create several game mechanics within this project that work together to create fun and engaging gameplay with loot chest that the player can find for better weapons and gear along with the games combat system and AI enemies that will fill the dungeons.

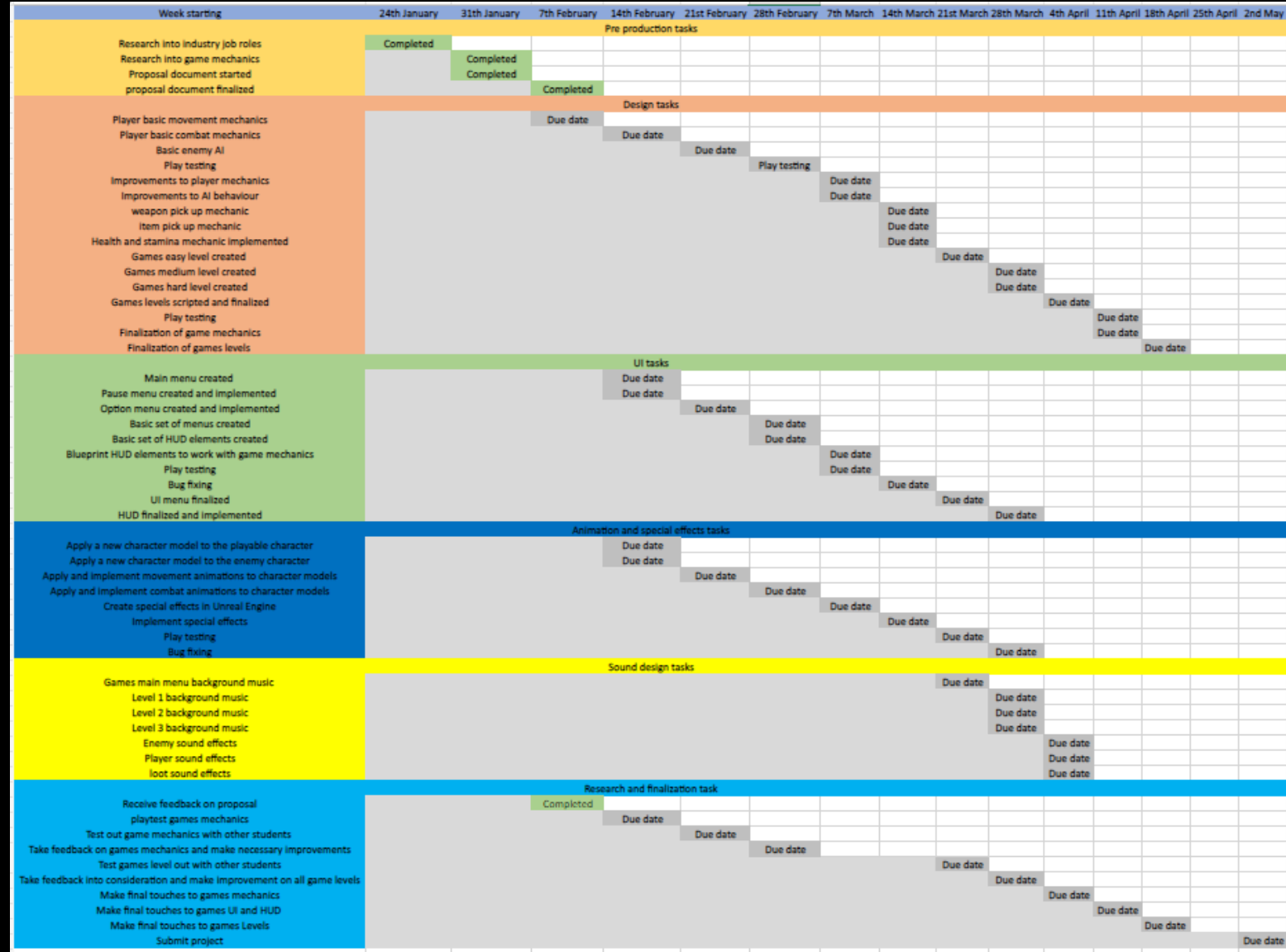
Stretch goals

While keeping the scope for this project small I have some stretch goals in mind that if the MVP is reached and I have enough time left with the project I will do my best to add these ideas into the project as I believe they would further the experience of the game.

- Multiple playable character classes
- Boss room where the player will face a larger more powerful enemy
- Endless mode that will have the player face against a randomly generated level



Project plan



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