Project Research Document - Hack and Slash Adventure Video Game

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Detailed Discussion

The idea proposed is a Hack and Slash Adventure Video Game which will have many features like combat, multiplayer, RPG elements, 2D pixel art style, both developer designed and procedurally generated levels and stores all user progress despite playing on Android or PC.

This will provide a coherent and fun user experience, it will be easy to learn how to play, connecting with other players for multiplayer will be simple and quick. The player will be able to create their character to fit their playstyle yet still be well balanced while playing solo or multiplayer.

Having researched multiple Hack and Slash video games I understand that the user should not be too overburdened with information, this will be achieved with a minimalistic heads up display and simple to understand sprites with well defined animations.

The player will have many different levels to explore with different enemies and bosses to encounter acquiring loot which makes their character adapt in ways the player sees fit while progressing through the game by leveling up which will unlock more areas to explore and tougher enemies to fight.

The goal for this project is for both hardcore and casual gamers to enjoy it as the android market is more casual oriented than the more hardcore PC audience. Mobile players should be able to pick up and play while PC players can have long gaming sessions.

Existing Applications in this domain

There are multiple video games that are hack and slash for both Android and PC but I want to create a similar game but with other elements to make it different.

Similar Games	Similarities	Differences
Torchlight 1/2	● RPG Elements ● Combat ● Multiplayer	● No Cross-Platform ● All levels procedurally generated ● 3D instead of 2D
Gods War II	● Similar style and tone ● RPG Elements	● No Cross-Platform ● No Multiplayer
Albion Online	● Cross-Platform ● RPG Elements ● Combat ● Multiplayer	● Different Art Style ● Has crafting mechanics

Platform, Technologies and Libraries

❖ Platform

The Android Platform has a large market share of casual users and is more developer friendly than ios this makes it both a good choice for practical reasons such as larger customer base and easier development

Windows PC is a large platform for hardcore and casual games since the advent of digital distribution with sites like steam, this makes PC a core part of the gaming market with many mobile games porting themselves to PC to reach a more hardcore audience.

❖ Technologies

The Unity game engine will be the project's main technology, it provides a high quality engine that's easy to use providing the developer with many assets such as libraries servers and a code repository.

The game will be programmed in C# and the database will be created with SQLite. I'll use image editing software Photoshop to create and edit images to make art assets for the game.

❖ Libraries

I plan to use the SQLite library for all the user information storage in my game providing cross platform information to both Android and PC. The game itself will uses Unity's scripting API with C#.

The Risks

The biggest risk to the project is the seamless Multiplayer Cross-Platform gameplay as resources on this type of online player may be scarce with most developers segmenting their audience to the platform of choice. Both version must be similar in performance so as not to give one side a better advantage against the other.

Internet speed issues may also occur such as lag or packet loss this must be prevented at all cost to ensure the game is playable over the internet.

Time is also a huge risk as making a good game may is huge undertaking for one person taking years for even seasoned solo developers to make a single game that stands out in the market, having only done projects within a team this will be a different experience as I use unity for the first time trying to learn how to use it most effectively within the time constraint given.