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Open Source Game Engine

As the product manager for the initiative Cloudflare Workers for Gaming, I propose an open source game engine for 2D and 3D games targeted at freelance and independent (indie) game developers. Cloudflare Workers' open source game engine can be a winning product on the market by, first, providing smaller video game developers accessible and intuitive code, and, second, removing the financial barrier faced by many smaller developers.

The product proposed is not necessarily a new product, since there are other game engines out there. However, most big companies have their own game engine and editor so smaller game developers need to rely on open source game engines. The reason most game developers rely on game engines is because they ease the process of creating a game and allow developers to reuse different functionalities, explained Freecodecamp.org. Because game engines are already used--both by large and small developers--, there is no uncertainty about whether the proposed product will be used by its target audience. The uncertainty, instead, comes from whether the product proposed is more efficient and intuitive than existing game engines.

To alleviate this uncertainty, our game engine has specific design qualities to distinguish it from other engines. The game engine proposed is designed to support those with minimal coding experience, thus relying heavily on its graphical user interface and built-in features. However, within its settings and setup, game developers have the option to rely less on built-in features and implement their own code or even change code, without having to do a complete rewrite. This design choice is necessary for the game engine because many developers have critiqued other open source game engines like Unity for using mostly built in features, and they have complained that changing a small feature requires a whole rewrite of code. In addition, our proposed game engine will have strong software documentation supporting it, so that those with both coding experience and no experience can use the engine accordingly. This design combats the criticism of other game engines like Godot, who have poor documentation, making it harder to change features. These tweaks, I believe, will set this game engine part and ultimately benefit the targeted audience. Of course, we will still have to learn more about freelance and independent developers and what they value most from game engines, so that we can produce a product that they can successfully and easily use.

The financial barrier is a challenge that weighs on most independent developers. As mentioned before, most large companies have their own game engines. Other game engines, open source game engines, require royalties and subscription plans that are costly for people who are developing games by themselves or in smaller teams. An open source game engine gives

freelance and independent developers the same opportunity to create the next best game without needing a great sum of money. Additionally, many smaller game developers don't have the infrastructure necessary to protect their work. Cloudflare already offers cybersecurity measures. These measures can be translated and implemented into this open source game engine to protect developers and their work. Finally, developers will be able to benefit from the serverless deployment that Cloudflare uses to deploy their games.

Ultimately, the proposed product will need to be tested by game developers to ensure its ease and accessibility. Testing is important to game development, and it will be just as important to have new and experienced game developers test the product. If both developers can use the product to support their needs, then we have a working product. Otherwise, there will need to be further tweaks.

Moreover, like any product, there are risks to this product that may lead to a failure. It is possible that the product will not be used, since there are established open source game engines in the market. Even though our product may be more improved, it is possible that developers are comfortable with existing game engines, and they do not want to learn how to use a new one. Hopefully, this risk is mitigated by the fact that our product helps developers deploy their app as well.

In all, we will know the product is successful based on how many games are deployed, the quality of those games, and whether those games are played by others.