Case Analysis

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What we have:

Cloudflare Workers is a platform that allows developers to focus on their code without worrying much about the underlying infrastructure required to set up. Currently Cloudfare Workers can run JavaScript, Rust, C, C++ on the edge with Workers.

Web developers worldwide have used Cloudfare Workers to build and host static website as visible in the "Built with Workers" section of the website.

Our Goals:

To begin a similar initiative in the gaming industry, we first need to understand the developers in the gaming industry and their approaches.

- **Types of Users:** In the game dev industry, we have developers who work with 2D and 3D games, Web based games (HTML5) and mobile games.
  Looking at their toolset, the developers working on Web based games most commonly use Javascript, HTML5 and CSS together.
  2D & 3D Devs use C++, Java and C# and choose an engine that supports programming in their language (Unity3D, Unreal Engine, etc.)
- **Their Problems:** Devs that work with 2D & 3D games usually must install a very storage heavy engine to get started developing their games. Thy must modify the settings to optimize the games to the platform they want to release for. For a significant number of population this might be ok to install with good access to WIFI and prior programming/computer science background. However, for people with improper access to WIFI or not much prior experience, they will have to spend a lot of time in setting up the software before they can begin creating games.
  Devs working on web-based games have it easier comparatively, they do not need to set up any specific environment and instead can work with local tools that are install on their computers for testing and development. Only issues they would have to encounter would host their game publicly after development.

Using what we have, to work towards our goals:

If the aim of this new initiative was just to expand the target audience and encourage more people to use Cloudfare Workers, then Cloudfare should initially target the developers who build HTML5 browser games.

- **Additions:** Most of the functionality would remain the same as Workers already supports Javascript.
  Tutorials on building mini games can be added in addition to the existing tutorials.
  Asset Storage: Currently all the data for the applications that you create is stored in Workers KV. For an application like game, which is asset heavy, it would overload the Workers KV.
  This issue can be solved in two ways:
  - Creation of an additional form of storage specific only to assets for games

- Allow users to store assets on Workers KV but handle pricing in a more cost-efficient manner.

Environment: From testing the environment, It seems as though it only offers functionality to 1 main script in the playground and the web version of my Worker. For games, there are usually multiple screens that need to be added and developers prefer to have a hierarchy of files.
Share: To get more devs to use the platform, it should allow the devs to create a shareable game link which contains the hosted game. This way, the link can be used to track metrics and get insights on who is playing the game, location and more aspects.

On the other hand, if we wish for Cloudflare Workers for Gaming to uncover a completely new target segment, that is 2D and 3D game developers that use engines such as Unity 3D then there are many additions that need to be made to the application.

- **Additions:** *Asset Storage:* Compared to 2D and web-based games, 3D games assets require a lot of storage. A specific storage plan would need to be created to address the same. It should be cost effective as well to justify the motive for devs to switch to the new platform.
  Reliability: With other engines, the download and setup are quite unstable. For someone with bad network, they would face a lot of issues when setting up. To make users shift to Workers for Gaming, the software should allow for auto save functionality to ensure none of the work in the past has been lost.
  Visualize: It would be difficult to visualize 3D games and test play the games in the browser due to limitations of the browser. The software should offer a functionality to download the game as a runnable exe for testing purposes.

Measuring Success:

Based on the shared functionality implemented, metrics can be tracked to see how many users are playing a publisher's game.

To track the number of publishers on the platform, the below steps can be taken:

- **Reach out:** to potential first users of the platform from the list of users who are already using Cloudfare workers. This can be done by either sending a survey or newsletter where interested users can signup to stay informed about the new platform.
- **Onboard:** On board interested users in batches and provide unique codes to them. These codes will be used to keep track of the metrics of publishers such as number of Workers created, number of share links created and more metrics that might be required to track.
- **Benefits:** Offer benefits to users for building and releasing games with the platform such as more Worker credits for requests per month.
- **Survey:** Get feedback via unobtrusive popups on the website about the platform and if the developer would recommend it to other developers. Take survey feedback from share link as well, where users playing the game can leave feedback for the platform itself.
- **Referral:** Once the platform starts gaining traction, send out unique referral codes to first batch of developers and track metrics of users who sign up using it.