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Cloudflare Workers for Gaming Summary

Introduction: Everyday, millions of avid gamers turn to their devices to play with their peers online. In the current state of our world, those who typically would not utilize games to interact with friends are searching for new means to entertain themselves and socialize. Cloudflare Workers for Gaming has the potential to bridge the gap between avid and casual gamers through the development of a new gaming platform. This platform would not only have a positive social impact on our world-wide communities but offer us a new market with which we could expand upon in the future once the pandemic subsides.

Plan to learn about the market: The software market is predicted to change a lot over the next few months. While this offers us the potential to meet a very new need, it is also risky and thus requires a full understanding of what our users would want in an application, whether the orders to stay inside continue or are lifted. We would seek out those who have already entered into the gaming sphere using forums (Steam, Reddit, etc.) to survey players about what they appreciate in games and how they could better interact with fellow players. This also could start a potential following for the platform as we engage potential new clients. We would also use social media pages created to offer entertainment ideas for those remaining inside during the quarantine to ask what traditionally non-gamers would want in a program to allow them to interact with their peers virtually. There are some large risks for each target group. Many gamers already have existing worlds they feel an attachment to and may consider a game without missions or faster-paced action not intriguing. Many non-gamers may be skeptical about entering the gaming-sphere and would likely need more detailed tutorials and guidance if they do decide to enter.

Product features: Our light-weight gaming platform would utilize users' existing devices to connect them to a virtual copy of our world. This would be important because the purchase of hardware generally creates a large barrier to entry that would otherwise deter a large part of our audience. Our platform should be able to run off of most modern smartphones (the minimal technical requirements would be researched so that we can maximize performance and inclusion). If possible, generated environments would be generated using Google Earth's API but pivoting to user-submitted photos as a basis for the renders could be possible if Google does not grant us access to their API. Students have similarly been using programs to generate Minecraft versions of their institutions in the past few weeks. Another feature of the application would be that groups of friends could choose their spawn location and our application would generate the world around them. Submitting photos of their faces to generate characters would be the eventual goal, but to reach our market faster we can allow users to upload characters faces they have already created such as Bitstrips ULC's Bitmoji or Apple's Memojis. Voice chats would allow players to talk to each other. We plan to make revenue from purchasable content such as missions and accessories to decorate one's avatar. Additionally, we would seek to reach deals with retail stores such as Nordstroms that have been hard-hit by the virus. In exchange for payment from

businesses, we would allow our players to purchase items from their stores in our game to keep them engaged with the retailers.

Infrastructure: We would be employing many of our in-house tools to allow secure communications and consistent up-time with our load balancing and content delivery network. Using our distributed computing would allow us to perform more intensive operations like graphic baking within our servers to leave user devices with less power-intensive tasks like receiving data and rendering the graphics. We can improve our platform with small, frequent updates that each address a small improvement to our application to make the experience more realistic and entertaining. Some updates could include more detailed graphics for characters, missions for friends groups to maintain engagement with the product, and the like.

Approach: We would follow the Agile software development methodology, creating a minimal viable product which offers the most basic features of the platform so that we can release and improve as we continue. Before the platform is released, it should offer the ability for players to join, create a character, and communicate over a voice-server. The application should generate at least one simple world for each party. We would first test the program with our employees as they create a variety of parties and later provide feedback. Future releases can include features requested by users and those that we have already defined such as pulling Google Earth data and allowing parties to interact with each other. If internal testing is successful, we would seek limited external testing from both target groups that may have expressed interest in sampling the product before it is released. Our development team will write down goals they think are achievable within eight developer hours by one developer and pass them around their potential teams to verify our ambitions are all on similar levels. We will post these to a Scrum board to measure our success daily and have weekly recaps on Friday afternoon where we can create new goals as necessary for the following week. We will also monitor news events to see if any new developments require that we pivots to include a different feature, target a new market, or if any new risks to the success of our project arise and adjust accordingly.

Measuring success: We will measure the success of what we build through our revenue, the number of downloads and active players we have, and reviews from users. We believe that we will have mitigated much of our risk through our testing and continued expansion of the platform after careful consideration of user feedback. Starting small and expanding will ensure that we do not risk spending resources that would go wasted should the project not meet our success standards. Ensuring that we have minimal negative reviews will be another measure of success at each iteration of our process. We could also use the number of ambassadors we have for the platform as a measure of success. These individuals would benefit our platform by offering potential to interact with celebrities in our application as well as explain the potential of our application to a larger user-base.