#### Maintenance Plan

#### Team Zero

Disclaimer: This Maintenance Plan is built on the hypothetical scenario in which our futures are dependent on this game and as such our efforts are placed solely behind it to grow it into a profitable program off of which the "company" can expand. Additionally, as we are all poor college students, many of the average salaries will be low-balled, as we will unlikely be in a position to pay workers at normal rates.

At the Maze Walker's current state of infancy, there are a large variety of costs that will go into growing and maintaining this brand. Along with a dedicated tech support team to alleviate user issues, there are a variety of changes to be made and features to be added that will significantly increase the projected maintenance cost. As such, the end of this plan will review possible revenue options and discuss the project in a farther reaching time frame. The short term growth of the project can be divided into several categories:

- 1) General Maintenance and Bug Fixing
- 2) Engine and Asset Development
- 3) Art and Music Development
- 4) Hosting and Distribution Fees

With these in mind, let's look at the plan to finance this program over the next year:

# General Maintenance and Bug Fixing

The general maintenance and bug fixing sector will effectively be customer service and IT Support for community management and outreach. For the current scale of the project, it is

likely only 1 developer is necessary for this position unless the program achieves viral status, which is not projected within the next fiscal year. As such, projected annual costs for IT support is \$65,000. In addition to the IT support, the company will likely require a social media and advertising manager to promote the game as much as possible. This department will ideally have 2 staff members to manage both convention appearances throughout the year and being able to handle social networking and coordinating advertisements, a project cost of ~\$58,000 per person. These people would likely be hired immediately after launch, as it is necessary for the game to make small amounts of money to support the beginning of the venture before expanding it.

### **Engine and Asset Development**

Engine and Asset Development in the next fiscal year can be further subdivided into a few categories: Game Engine Development, Web Development, and Server & Networking Infrastructure.

The game currently runs on a JavaScript-based engine known as BabylonJS. While this is suitable for our current needs, it would be ideal to develop an in-house engine that is more optimized and more malleable for our needs and future changes to the game. With this in mind, developing an engine from scratch is an egregious amount of work, and thus will require several developers to be placed on the task. This team would likely consist of 3 developers, at an average yearly salary of \$65,000.

Considering that the primary version of the game will likely be web based unless we find it is more valuable to put our efforts on a different version in the future, a dedicated front-end web development team will be necessary to implement new quality of life changes and game

features. They will be in charge of working off of the newly developed engine, as well as working with the engine team to transition that game upon engine completion. This will likely be a team of 2 people, at an average yearly salary of \$65,000.

Finally, Server & Networking Infrastructure is an incredibly vital component of this program, especially considering that it is web based. Furthermore, being able to compete for leaderboard high scores is a primary component of the game, and ideally a multiplayer game mode could be implemented to improve marketability and long term appeal. To better grasp this idea, think of agar.io. While this is obviously a completely different game mechanically, the server & network infrastructure team would handle online implementation in this regard, creating a type of drop-in-drop-out gameplay. Finally, they would be in charge of handling high scores and hosting issues, which is a significant piece of the game's success. As such, we would ideally have a team of 3 developers who would work additionally with IT support in General Maintenance to ensure an efficient and smooth online experience. These developers would be hired on at an average salary of \$65,000.

Note that all of these would be hired on sometime after launch when it seems that we are making the necessary profits to support such an expanded staff.

## Art and Music Development

Though our current art and music assets are charming in a "fun college project" way, they simply won't stand out in the free market, due to several issues. First, they are free use textures and music, which comes with a lot of licensing issues when attempting to make a profit off the work. As such, being able to generate our own art assets and music will ideally minimize legal concerns and profit sharing, and allow greater control over the style of the end

product. To further coincide with our reworking of the system based on a new engine, establishing a new look and sound for the maze will likely help increase long term player rates and interest. Currently, the work would need to be free-lance, as there is no necessity for a long term employment opportunity for an in house artist when assets will need to be updated infrequently. As such, art costs will range from \$75-150 an hour.

Custom music will allow us to better tailor the experience so that users feel entranced while playing the game and want to continue playing longer and for more sessions. Ideally, a free-lance contracted sound designer would be ideal in a budgetary sense, but an in house musician has more statistical backing as far as costs, and comes out to an average of \$50,000 a year. However, we could sign on free-lance for potentially fewer billable hours.

Because art assets and music assets are the face of the game and are a necessity for expanding the player base, these would be some of the earliest hires so that we can give the game a fresh look when it is launched into market, and maintain this look as graphical power increases to keep it modern and enjoyable.

## Hosting and Distribution Fees

One of the primary budget items lies simply in hosting and distributing the game across the year. Since the initial version of the game is web based, we would like to keep it so while simultaneously launching and maintaining other platforms. Additionally, the prospect of adding multiplayer components and a more comprehensive online experience is enticing and encouraging to focus what resources we can into maintaining and improving this version. This will also be discussed somewhat in the deployment plan, but it falls under the maintenance plan as well by the sheer fact that it is a recurring cost to keep the game online.

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In terms of server needs, we would likely seek out a shared server resource initially

while the game is small, but can seek to expand up to a dedicated server should we get a viral

reception leading to a longer lasting player base. Services like bluehost allow us to pursue a

cheaper shared hosting option for ~\$25/month until it feels necessary to purchase our own

server system—unlikely in this year.

Additionally, various companies like Microsoft and apple sometimes require fees to

maintain applications on the app store. Though we would like to pursue this option in the

future (which would further expand maintenance costs for the company), it is unlikely that we

would expand to other platforms this early in the game's lifespan. Once it finds its niche, we will

consider other platform opportunities.

**Total Costs** 

Looking at this listing of the next year, costs are laid out as such:

9 Developers at ~\$65,000/year = \$585,000

2 Marketing Managers @ \$58,000/year = \$116,000

1 Free-Lance Artist (100 hours @ \$150/hour) = \$15,000

1 Sound Designer at ~\$50,000/year = \$50,000

Hosting fees @ \$300/year = \$300

Loosely projects total budget:

\$766,300

# Ways to improve projected budget

Considering this to be a hypothetical budget, it fails to account for a number of actual costs that would be too difficult to estimate. This includes building rental space for an office, computer resources, costs of proper marketing, and other associated budget items. So, the primary way in which to more precisely narrow the budget is to get specific estimates on these resources. However, these fall out of scope of direct maintenance costs for the game.

### Works Cited

- "Software Developer Salary." *Software Developer Salary*. PayScale: Human Capital, 28 Oct. 2016. Web. 14 Dec. 2016.
- "Marketing Manager Salary." *Marketing Manager Salary*. PayScale: Human Capital, 28 Oct. 2016. Web. 14 Dec. 2016.