Deployment Plan

Project 4: Whale Racer

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Over the course of projects 3 and 4, the product we have produced is Whale Racer, a 3D, multiplayer whale racing video game using the Unity engine. This choice of project makes deployment planning slightly easier as there are only a few well known avenues for distribution and marketing of video games, and these are becoming increasingly easier to take advantage of for independent developers. In addition to hosting distribution of the game on our own domain, we would certainly plan to release it on platforms such as Steam and, with some additional porting work (to be addressed in the maintenance plan), the major mobile and console storefronts.

The simplest and most direct method of distribution for an independent game like ours is hosting it on our own servers. Austin Irvine already owns whaleracer.com, a domain obtained for **$12 a year** through Google Domains. This is currently a simple Blogger site, but could easily be expanded by the existing team. Amazon Web Services is the most apparent option for hosting of a download server for the actual game data and the e-commerce components necessary to sell the game. Assuming 1000GB of data transfer per month from game downloads, Amazon’s pricing calculator estimates that its CloudFront content hosting service would cost us **$89/month** for the first year, and **$101/month** thereafter.

Getting the game on Steam, the most popular and visible game storefront, should be fairly simple. The Steam process has been streamlined in recent years - Valve now requires only a **$100 one time** fee to distribute a product and there is little likelihood of rejection. Steam distribution requires the submission of tax information and would likely require some effort toward the formation of a legal corporation and a company bank account. The online filing fee for articles of incorporation in Kansas is **$85 one time.** There is a 1-5 day review process and a month long waiting period to release a game on Steam, along with the requirement to prepare a store page at least two weeks in advance of launch. Steam takes a 30% cut of sales.

The game could also be sold on less prominent, indie-focused PC storefronts like itch.io, which charges no fee and offers a pay-what-you-wish model for its sales cut. Other retailers are more discerning, focusing mostly on professionally-developed independent games and AAA games, and many of them simply distribute Steam keys in the first place. However, these vendors could be an option after further development, marketing, and polish. Although their actual storefront requires a more rigorous submission process, the Humble Bundle store offers tools for developers to host a game store page independently and takes only a 5% cut of profit.

Our priority in terms of releasing the game on mobile platforms would likely be Android, as it has a more open ecosystem and was an original part of our product backlog. Porting the game to Android would require a team effort - although Unity can simply build the game for Unity, controls, optimization, and platform-specific features would take additional development. In terms of actual distribution costs, however, an Android developer account costs only a **$25 one time** fee. There would be additional logistical work involved in preparing the game for Android sale, including checking device compatibility, age-rating the game, and preparing a Play Store page. Some of this work would transfer to the iOS side. Unity offers the ability to easily build an iOS app as well, but the requirements of the iOS development process are more intense. Every team member working on iOS support would need a Mac as Xcode, Apple’s development suite, is macOS only, and only two of us currently have Macs. iOS development could be confined to these two members, or we could go whole hog and spend ~**$3000** on mid-range Macbooks for all the remaining members. This may actually be more reasonable than it sounds in the long run, as better and more standardized development hardware would probably be in the cards anyway if we got serious enough. The fee to develop for Apple platforms is **$100/year** for an organization. Apple’s review standards are stringent, and while there is little risk of a rejection of Whale Racer on legal or ethical grounds, work would be required to ensure it is up to their standards of ecosystem integration and polish.

Getting the game released on consoles is a process with even greater overhead and requirements than porting it to phones. Unity games can be adapted to run on both major consoles, but getting up to the standard of a console release would take much more polish and expansion of the gameplay. Both major console manufacturers now engage in extensive outreach to indie developers, and we could self-publish on their digital stores. Getting registered to do so would require an intensive application and negotiation process for which we would have to have a much more robust product, although it would likely not cost much up front. Development kits would be another cost - the Xbox One requires only a **$99** development fee to unlock dev kit capabilities on a standard console, and two are provided through the ID@Xbox indie program. However, additional consoles are **$200** **each**. PS4 dev kits are priced at $2500 each, but many studios publishing on PS4 receive at least some kits for free. We would likely have to obtain ‘errors and omissions’ insurance to cover possible IP violations, which cost one indie developer **$2000** throughout development. The game would have to be age-rated for release as well - rating by the American ESRB is free, but the fees of various European ratings authorities could add up to **another $2000.**

A final - and critical - source of expenditure for a new studio trying to get the word out about their first game is marketing. We would get some exposure solely by virtue of being on whichever platforms we chose to release on. The marketing value gained is proportional to the popularity and exclusivity of a platform and the prestige associated with its storefront - a console release would probably be best for visibility, followed by iOS, Android, Steam, and then smaller indie distribution sites. A simple trailer and screenshots to upload to video sharing sites and display on store pages could likely be put together by the team for free, but web ads and convention appearances would cost us. Google AdWords lets you spend as little or as much as you are willing to. Estimates of how much small businesses should spend on AdWords vary, but it seems like **$5000/month** would be an advisable amount if we could afford it. Displaying the game at conventions during its development could also be a powerful method of marketing - the PAX/GDC Indie Megabooths accept game submissions for **$50/year** and applying would save us the massive costs of getting our own booth space. Some small developers have estimated the cost of actually traveling to a convention and exhibiting within the Megabooth at about **$2000** for a ‘minibooth’ and **$5000** for a full booth**.** We could display the game at 2-3 conventions (once in a minibooth, once in a full booth, for example) before being required to obtain independent booth space, which should cover a long enough period of time that we can complete development and release a final product.

Overall, releasing a video game would become more expensive as we attempt to launch on more numerous and more prestigious platforms. We could ‘release’ what we have now for free on an existing site, or for reasonable hosting costs on our own site. However, a release on a more legitimate storefront or on a platform that’s not Windows would raise costs and require extensive polish and expansion of the game itself to be worth it. Any marketing beyond that which we would gain from having a major distributor sell the game in the first place would be a massive expenditure. It seems to me that the best option for an extremely small development team is to release something that works and is interesting on a platform where you can get it released and in front of the public very easily, and then progress to bigger and better things if success materializes.

**Hypothetical Expenses to Launch Whale Racer**

**Assuming 1 Year in Development**

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| **Expense** | **Cost** | **Frequency** |
| Whaleracer.com domain | $12 | Yearly (1x) |
| AWS (1st yr) | $89 | Monthly (12x) |
| AWS (thereafter) | $101 | Monthly (Concern only after development if dev. takes 1yr, we’ll be rich by then) |
| Incorporation (State of KS) | $85 | Once |
| Android Dev Registration | $25 | Once per person (5x) |
| iOS Dev Registration | $100 | Once per person (5x) |
| Mac Development Machines | $1000 | Once per non Mac owner (3x) |
| Xbox One Dev Registration | $99 | Once for corporation |
| Additional Xboxes for Dev Kits | $200 | ?? (1-3x depending on team members who own) |
| PS4 Dev Kits | $2500 | 0-5x depending on relationship w/Sony |
| IP Insurance | $2000 | Total of payments over development cycle (once) |
| European Rating | $2000 | Once |
| AdWords | $5000 - less or more depending on ability to spend | Monthly - start near end of development so 4-5x |
| PAX/GDC Indie Megabooth presence + Trip to PAX/GDC | $2050 - minibooth + registration  $5000 - full booth | Once each - two cons over course of 1-year development |
| **TOTAL (1 YR Dev Cycle)** | **$36,535** | Assuming everyone will get a dev PC, Xbox, PS4. Assuming free PS4 dev kits, 3 Xbox dev kits, 4 months of AdWords at $5000. |