

The Gaming Room

# **CS 230 Project Software Design Template**

Version 1.0

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| Version | Date | Author | Comments |
| --- | --- | --- | --- |
| 1.0 | <04/21/22> | <Oscar Gutierrez> | Updated responses |

**Instructions**

Fill in all bracketed information on page one (the cover page), in the Document Revision History table, and below each header. Under each header, remove the bracketed prompt and write your own paragraph response covering the indicated information.

## [Evaluation](#_2o15spng8stw)

Using your experience to evaluate the characteristics, advantages, and weaknesses of each operating platform (Linux, Mac, and Windows) as well as mobile devices, consider the requirements outlined below and articulate your findings for each. As you complete the table, keep in mind your client’s requirements and look at the situation holistically, as it all has to work together.

In each cell, remove the bracketed prompt and write your own paragraph response covering the indicated information.

| **Development Requirements** | **Mac** | **Linux** | **Windows** | **Mobile Devices** |
| --- | --- | --- | --- | --- |
| **Server Side** | Terminal! Mac terminal is an easy way to change and create commands | Terminal! Having the same features as mac. They also have a very user friendly terminal to make changes and modify. | All thought their powershell system is great now. Windows also has a lot more programs. | Cloud based. Most mobile devices are not strong enough to handle it. Making more efficient to move to cloud. |
| **Client Side** | This would require a some time and good developers. With mac system, they have a lot of proprietary hardware that will need an special expertise. | This will cost the most expertise development based on the OS. With all line based code. But this should also be the least expensive. | This will be less of a lift for development. With windows being a very user friendly application is moderate price and time to develop | This would be the cost and development time process. With 2 team developing different software. But this is the biggest market. |
| **Development Tools** | C++/HTML/javascrip/python/css  These are all languages used in all platforms  PyCharm, Eclipse, Visual studio, Github, Notepad++, Sublime text | C++/HTML/javascrip/python/css  These are all languages used in all platforms  PyCharm, Eclipse, Visual studio, Github, Notepad++, Sublime text | C++/HTML/javascrip/python/css  These are all languages used in all platforms  PyCharm, Eclipse, Visual studio, Github, Notepad++, Sublime text | C++/HTML/javascrip/python/css  These are all languages used in all platforms  PyCharm, Eclipse, Visual studio, Github, Notepad++, Sublime text |

## Recommendations

Analyze the characteristics of and techniques specific to various systems architectures and make a recommendation to The Gaming Room. Specifically, address the following:

1. **Operating Platform**: Although that each platforms has its disadvantages and advantages. There is also a difference between mobile gaming and computer gaming. My recommendation is to develop the game in a windows platform over Linux or mac. Since there is a substantial amount of players that prefer playing on a windows computer will benefit the company and do further development into other platforms.
2. **Operating Systems Architectures**: With going with a windows-based program, we have a broader choice when it comes to CPU power and Memory power. From low end ARM chips up to High level Intel and AMD that will help increase the performance of the game. We are not limited to only 1 CPU like Mac’s M1 chips.
3. **Storage Management**: SSD, M2 and your traditional HDD. Honestly any hard drive will have enough speed to data transfer most of the Data we required to handle the game. We will definitely recommend to use at least a SSD instead. Knowing that we need to make sure that the data transfer will be flawless.
4. **Memory Management**: With memory management, higher and faster ram will help the program make the quick switches from the images within the time period. Being able to call up the images and temporary store it on RAM, helps the game with a fluent and lag free experience.
5. **Distributed Systems and Networks**: Having a centralize server that has all the information needed to play cross over, hold data and all the account information. This does introduce risk of outages and connectivity. As the game grows and become more popular, we will need to expand and have multiple servers across the country to make sure we will eliminate the possibility of a complete outage and disrupting the game experience to the users.
6. **Security**: This is one of the important things to keep in mind. With having very sensitive information of our users like emails, Credit card, addresses etc. We need to make sure our servers are encrypted to prevent any hacks. We will recommend our users to set up a firewall and make sure their Antivirus is always up to date as well.