



<Name-of-Software-Application>

CS 230 Project Software Design Template

Version 1.0

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Document Revision History

Version	Date	Author	Comments
1.0	<mm/dd/yy>	<Your-Name>	<Brief description of changes in this revision>

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.

Executive Summary

The application must have the ability to have multiple players in one or more team. One game can exist at a time in memory. Each time a new team is created, it will replace the previous one in the application's memory.

Design Constraints

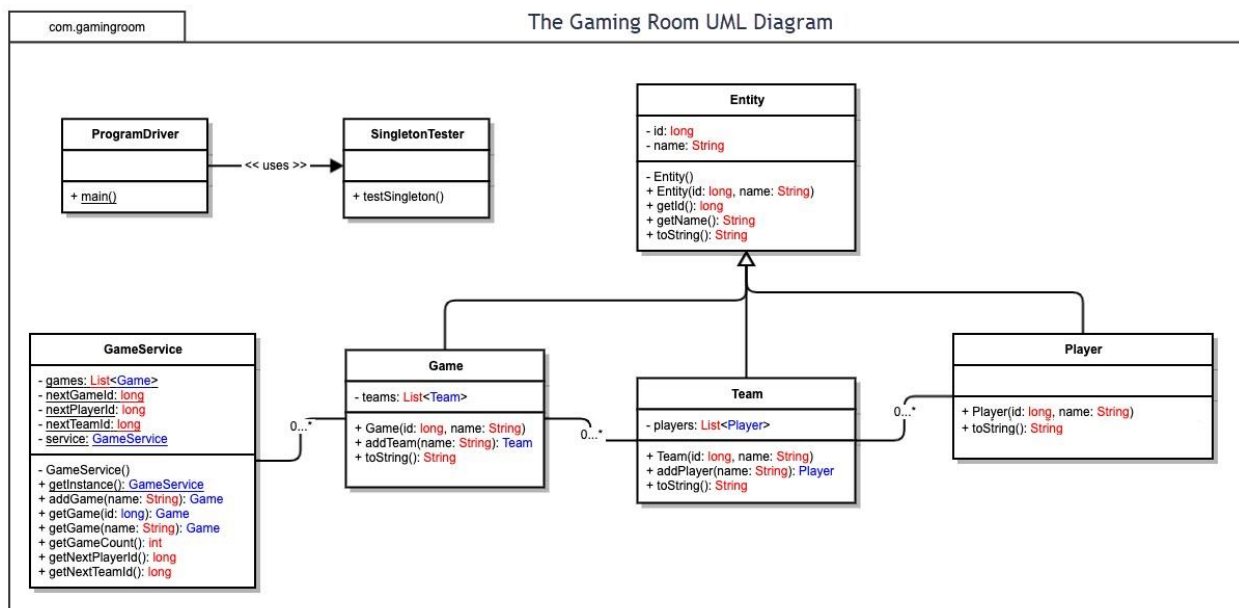
A constraint to this project is the timeline. There is only one week available to finish the project. I will have to begin the project early and plan out my week to finish it in time.

System Architecture View

Please note: There is nothing required here for these projects, but this section serves as a reminder that describing the system and subsystem architecture present in the application, including physical components or tiers, may be required for other projects. A logical topology of the communication and storage aspects is also necessary to understand the overall architecture and should be provided.

Domain Model

The classes GameService, Game, Team, and Player all are derived from and use the public methods from Entity.



Evaluation

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	Flexible terminal commands. Costly.	Flexible terminal commands. More affordable.	More available software.	Being mobile is a disadvantage. More complicated to implement.
Client Side	Takes time to learn to use Mac. Can be more expensive.	Takes a lot of time to learn. Less costly than some other OS.	Easy to learn, requires less time to learn. Can be costly.	Provides flexibility to user.
Development Tools	HTML, CSS, Javascript, Python, Java. Eclipse, visual studio, GitHub	HTML, CSS, Javascript, Python, Java. Eclipse, visual studio, GitHub	HTML, CSS, Javascript, Python, Java. Eclipse, visual studio, GitHub	HTML, CSS, Javascript, Python, Java. Eclipse, visual studio, GitHub

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:** In order to expand “Draw It Or Lose It” to other systems, Windows is recommended. Use of Windows operating system provides more available software, it is easy to learn, and Windows is widely used for gaming, therefore, there will be a larger client base using this operating system.
2. **Operating Systems Architectures:** Windows has a lot of software available which offers a larger variety for programmers. Windows uses kernel mode which allows full access to the hardware and resources for the computer to run code in a protected memory area.
3. **Storage Management:** In order to manage storage, TreeSize can be used as a storage management tool. It is easy to use, and offers free versions which could work, so it is cost effective.
4. **Memory Management:** Windows uses a memory manager which monitors each process, determines how much memory it demands, and determines if the process needs to grow or shrink to meet the demands of the program and of the operating system.
5. **Distributed Systems and Networks:** Use of a distributed system will allow “Draw It Or Lose It” to be accessed and shared between multiple operating systems at the same time. Clients, using their own operating system, will provide input, which will then go to the server, then the input will be processed and sent back to each of the clients.
6. **Security:** In order to protect user information, passwords will be required in the program, data will be encrypted, and data will be limited to only the amount required for the program to run.