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# **Software Design Template**

Version 1.0

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## Document Revision History

| Version | Date | Author | Comments |
| --- | --- | --- | --- |
| 1.0 | 04/14/2024 | <Kevin Alexander> | <My revision is to implement and show software development standard in Applied Statistics> |

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

## Executive Summary

*The client, The Gaming Room, is looking to develop a web-based game application called Draw It or Lose It,inspired by the 1980s television game Win, Lose or Draw. The game involves teams guessing phrases, titles, or things based on stock drawings rendered by the application. The client needs assistance in setting up the software environment,including creating a software design document and developing the game application to streamline the development process.*

## Requirements

***Business Requirements: Develop a web-based game application called Draw It or Lose It,inspired by the 1980s television game Win,Lose or Draw. The game will involve teams competing to guess phrases,titles or things based on rendered stock drawings. Each game will consist of four rounds lasting one minute each. Drawings will be fully complete at the 30-second mark. If a team fails to guess the puzzle in time,other teams will have a chance to guess within a 15-second time limit. The application should be user-friendly and engaging for players.***

***Technical Requirements: Implement a large library of stock drawings to be rendered as clues. Develop a timer system for the rounds,with clear notifications for when drawings are complete. Create a guessing mechanism for teams to input their answers. Design a system for other teams to offer guesses if the original team fails to solve the puzzle. Ensure smooth rendering of images and seamless gameplay experience. Develop a responsive web-based application accessible on various devices. Provide a secure and stable platform for hosting the game application.***

## Design Constraints

**1.The application must be able to render images from a large library of stock drawings as clues for the game.**

**2.The game must consist of four rounds of play,each lasting one minute,with drawings being fully complete at the 30-second mark.**

**3.If a team does not guess the puzzle before time expires,the remaining teams must have an opportunity to offer one guess each to solve the puzzle within a 15-second time limit.**

## Rationale

**To streamline the development of the web-based version of the Draw It or Lose It game application,we need to identify and address several design constraints based on the requirements provided by the client. Here are some key design constraints and their rationale:**

**1.Real-time Rendering of Stock Drawings:The application must be able to render images from a large library of stock drawings in real-time to provide clues to the players. This constraint is crucial to ensure that the game runs smoothly and that players receive timely visual cues to guess the puzzles.**

**2.Timer Functionally:The game must include a timer that counts down from one minute for each round of play. The timer should be accurate and trigger events such as revealing the complete drawing at the 30-second mark and allowing other teams to guess within a 15-second time limit if the puzzle is not solved. This constraint is essential for maintaining the pace and structure of the game.**

**3.Multiplayer Support:The application should support multiple teams competing against each other to guess the puzzles. This constraint requires implementing features for team management, turn-taking,and scoring to ensure a competitive and engaging multiplayer experience.**

**4.Guess Submission Mechanism:Players should have a user-friendly interface to submit their guesses within the time limits provided. The application needs to handle and process these submissions accurately,displaying the correct answers and awarding points accordingly. This constraint is critical for the core gameplay mechanics of the app.**