



Quiz Beast Test Plan - Quiz Maker and Player Application.

Quiz Beast Test Plan

for

Quiz Maker and Player Application

Version 0.1

11/13/2024



Quiz Beast Test Plan - Quiz Maker and Player Application.

Introduction

Test Objectives

The system integration test for the Quiz Beast application will focus on validating both the functional and business requirements of the system. Specifically, the following objectives will be tested:

- Users can answer quiz questions.
- Users can create quizzes and individual questions.
- The system tracks quiz scores accurately.
- Users can input scores with a 1- to 3-character string attached.
- Users can edit quiz content.
- Users can view all available quizzes.
- Users can search for quizzes.
- Users can rate and leave comments on quizzes.
- The order of quiz questions and answer choices is randomized.
- The system includes a small chance of adding a random "fun" question.
- The scoring system processes results in real-time.
- The system can handle expected load and usage.
- The system allows for easy integration of new features.

The objective of the system integration testing is to ensure the overall functionality of the system and its interactions with other components. By the end of the testing phase, the project and test teams should have high confidence that the system meets user requirements and business needs.

Scope of Testing

The system integration test will focus on the following areas:

- **Quiz Taking:** Users answering quizzes.
- **Quiz Creation:** Users creating and editing quizzes.
- **Scoring:** Accurate tracking and display of scores.

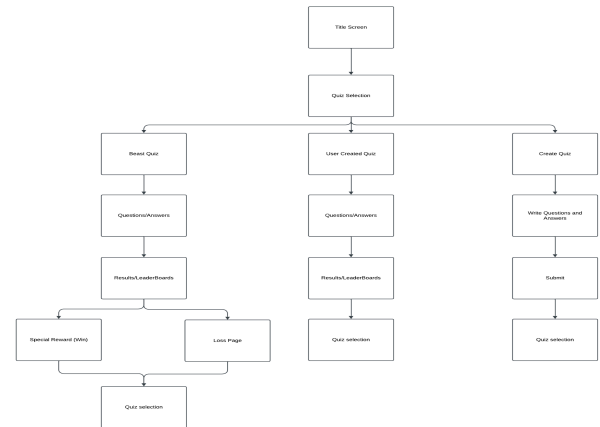
Testing will **not** include system administration functions.



Quiz Beast Test Plan - Quiz Maker and Player Application.

System Overview

The **Quiz Beast** system is a versatile and user-friendly quizzing application. It supports both quiz-taking and quiz-creation functionality, allowing users to participate in quizzes as well as create their own quizzes and questions.



References

- **Requirements Specification Document** for the Quiz Beast System
 - **Test Standards**
 - **Test Procedures**
-

Approach

Assumptions and Constraints

Assumptions:

- The first build of the Quiz Beast system will be available for system integration testing by **December 12, 2024**.
- Each build of the system will have passed unit testing and unit-to-unit testing before being transferred to the integration environment.

Constraints:

- The four-week testing window may not be sufficient to fully test the entire system and address any defects discovered during the process.
-



Quiz Beast Test Plan - Quiz Maker and Player Application.

Coverage

Test coverage will be evaluated using the following metrics:

- A completed matrix of **testable requirements** and corresponding test cases.
- A completed matrix of **business processes** and associated business test cases.

If coverage levels are insufficient, the group leader will assess whether the current levels are adequate considering the system's risks.

Software Components to be Tested:

- Quiz-taking module
- Quiz creation module
- Scorekeeping module

Requirements:

All user requirements outlined in the **Requirements Specification Document** will be tested.

Test Plan

Team Reviews

The following reviews will be conducted with the entire test team:

- Test Plan Review
- Test Case Review
- Test Progress Review
- Post-Test Review



Quiz Beast Test Plan - Quiz Maker and Player Application.

Environmental Needs

Test Environment

- **Hardware:** All test cases will be executed on the **Development GitHub** environment.
- **Software:**
 - Quiz Beast application software
 - Visual Studio Code (VS Code)

Test Lab Requirements:

The test team will require the following resources:

- Computer Lab
- Internet connection to access GitHub

Training:

Test team members who are unfamiliar with the testing process will be trained on testing techniques by Beastie staff. The training session will last one day and will take place in the computer lab.

Features to be Tested

Quiz Creation

- Open the quiz maker tool.
- Create a quiz by adding questions and answers.
- Save the quiz after creation.

Quiz Taking

- Answer questions by selecting the correct answer.
- View a list of available quizzes.



Leaderboards and Scoring

- Add a score name of 1-3 characters.
- Ensure scores are recorded and displayed correctly at the end of the quiz.

Testing Procedures

Test Execution

Test cases will be executed for each requirement or system feature. Each test case will outline a series of actions and the expected results. The results will be evaluated as follows:

- If the observed results match the expected results, the test will be marked as "Pass."
- If the observed results do not match the expected results, the test will be marked as "Fail."

Order of Testing

- **Build 1:**
 - Quiz Creation
 - Quiz Taking
 - Leaderboards
- **Build 2:**
 - TBD

Pass/Fail Criteria

To pass the system integration test, the following criteria must be met:

- All scores must be accurately recorded and displayed.
- All leaderboard data must be correctly stored and displayed.
- Quiz creation functionality should work as expected, including saving and displaying new quizzes.
- Quizzes must display correctly when taken.
- Leaderboards must exist and function for each quiz.



Defect Management

Defects will be tracked using **GitHub Issues** for reporting, managing, and tracking defects within the system. The defect severity levels are as follows:

- **Critical:** The issue renders the software unusable, preventing testing from continuing.
 - **High:** A major issue that halts testing.
 - **Medium:** Noticeable issues that impact user experience but do not stop testing.
 - **Low:** Minor issues that should be easy to fix.
 - **Info:** Uncertainty or questions about the system that require clarification.
-

Risks and Contingencies

Quiz Creation

- **Risk Level:** High to Moderate
- **Impact:** Without quiz creation, the system would only offer a small set of pre-existing quizzes, which could limit user engagement and enjoyment.

Quiz Taking

- **Risk Level:** Extreme
- **Impact:** The quiz-taking functionality is the core feature of the application. If it fails, the system cannot fulfill its primary purpose.

Leaderboards

- **Risk Level:** Low
- **Impact:** Leaderboards are a "quality-of-life" feature. While desirable, their failure would not severely affect the core functionality of the application.