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| **roll4intiative** |
| **Test Plan** |
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## Purpose

The purpose of the Test Plan is to gather, conduct and document all forms of testing of the software to ensure teams desired quality and functionality.

*Test Plan* objectives for Roll4Initiative Website:

* Proper functionality in all processes
* High passing rate for test suites and cases
* Personalized experience for users
* Security within login system
* Intermediate system performance and supportability

## Scope

The scope of the Test Plan will be constrained but not limited to Unit, Integration and System testing to ensure that software is functional and reliable to users. This breaks down to main targets such as usability, performance, and supportability with multiple users.

## Intended Audience

Team Leader – Hold responsibility to overview testing documentation and approve or disapprove to testing specifics that are defined, undefined or that can be changed in the lapse of the software’s development.

Team Developers – Will execute details listed in test plan, record any changes or hold backs that may affect date of deployment, and track progress in order to report back to the team leader.

# Evaluation Mission and Test Motivation

Test Plan will take place at each phase in development of the software to provide a usable product to users. Motivation behind test plan is to ensure and provide dungeons and dragon users usable software that will assist in game play. Overall mission will be to integrate test plan to provide a personalized experience for each user as well as enhancement in game play, performance, and functionality.

## Background

Roll4Initiative website is a project that was first thought of for the tabletop role-playing game Dungeons and Dragons and its access to limited resources on the web. Project is intended to assist players and Dungeon Masters game play. Project will include functions such as the creation of monsters, characters, and interactive character sheets. Testing will take place to debug software and fix any problems that could affect or limit user from system. Major target in testing plan will be to solve any strange result with the use of the software, error in the writing of SQL queries, syntax errors in coding, or logical errors in coding. With the solutions to any of the previous problems stated, most major benefits will come from users and a deliverable product.

# Outline of Planned Tests

Following outline of planned test will incorporate a summary of all testing that will be done during or after the creation of software and will specify test cases that pertain to each suite.

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| Test Suites | Test Cases |
| Suite 1 | * Database Queries * Database Tables * PHP code |
| Suite 2 | * Website interface * Player Login System * Dungeon Mater Login System * Website Functionality |
| Suite 3 | * Website Volume/Data * Security * Website Performance * Website Validation/Recovery |

# Test Approach

Approach that will be taken for testing could change and will depend in test suites and mission for each suite. All test cases will have different approaches, techniques and test scripts that will completely define the steps necessary to record and track testing success or failure.

## Testing Techniques and Types

### Data and Database Integrity Testing

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| Technique Objective: | Objective of testing Data in Database is to ensure that data integrity is kept and that all GUI functions retrieve, respond, and give information correctly. Interferes with security and functionality overall testing. Any strange data flow within website will result in various iteration of testing |
| Technique: | * Read over all tables in Database * Observe and changes in table during testing iterations * Create and test SQL queries * Implement Database with functionality from GUI perspective * Overview code that will connect to the Database |
| Oracles: | Mistakes that can be noticed during the use of techniques can result in odd output from interface, limited functionality in the website, and empty tables |
| Required Tools: | * SQL queries * Documentation with information in tables * Diagrams that represent data flow * Specific instructions for successful testing of Database type |
| Success Criteria: | All queries and functions tested with implementation of the GUI show expected results concerning any change or manipulation in Database tables. |

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### Function Testing

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| Technique Objective: | Objective of function testing is to hone in on the reliability in the functionality of the Website. This will ensure a successful product where every aspect of the system does not contain any misbehavior, high risk of crashing, bugs, glitches, or defects that limits user. |
| Technique: | * Interface interaction with selective stakeholders * Record and document results * Have result expectations |
| Oracles: | Signs of successful and effective testing will come from a document that has defined and expected results. Apart from this, selective stakeholders should give any feedback in any functionality that did not meet requirements of the system. Lastly, there should be not defects throughout the process of testing functionality of website. Tables in the Database will give direction to effective flow of information. |
| Required Tools: | * Selective stakeholders * Software Requirement documents * Test script involving integration with GUI * Documents that track success or failure of testing * Evaluation sheets |
| Success Criteria: | * Testing results meets needs of users and documentation |
| Special Considerations: | * Testing of functionality in Interface will go through iterations as not all functionality will be completed in one trial. This will ensure that developers can focus on problems in segments rather than as a whole. |

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### User Interface Testing

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| Technique Objective: | Objective of testing the interface it to ensure that the website is luring, consistent and easy to navigate. |
| Technique: | * Compare format or design models from documentation * Rate and overview complexity in navigation through website * Overview consistency within design of the website * Ensure that there is a user guide and a help page for new users * Easy Manipulation of page without drastic changes in the look and feel of the website |
| Oracles: | Successful testing will come with evaluation sheets that could determine progress and a finished product. Other ways to prove a successful and useful interface could be from the revision of possible selective stakeholder; any feedback they might have. |
| Required Tools: | * Evaluation sheets * Test script that is written with instruction on the most efficient ways to navigate through the website. |
| Success Criteria: | * Valuable feedback meets development standards |
| Special Considerations: | * Selective stakeholders can have a different approach or perspective on the vision that they have for the website |

### Test Plan Entry Criteria

* Test Plan will begin when all modeling and designing phases have been completed and the construction of the website begins

### Test Plan Exit Criteria

* Test Plan will end when all expectations on documents are met.