Test Plan for

Online Guest House Booking System (OGHBS)

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1. Test Plan Identifier

Online_Guest_House_Booking_System_v1.0

2. References

Software Requirement Specifications Document

3. Introduction

This is the Test Plan for the Online Guest House Booking System (OGHBS). The purpose of this test plan is to provide a framework for testing the Online Guest House Booking System to ensure that it meets the functional and non-functional requirements, and to identify and report any defects or issues.

The test plan will cover the testing of all the functionalities of the Guest House Booking System such as User registration, room availability, payment information, booking queue and feedback system.

The testing procedure will consist of manual testing as well as automated testing to ensure maximum scope for detecting errors. For automated testing we will use unittest, which is a framework for testing python codes. The GUI (website) will be tested manually and checked thoroughly. Various testing environments and their pass/fail criteria will be set up and

the system should pass all these criteria successfully in order to be completely functional.

4. Test Items

Following are the list of functionalities and components of our system that needs to be tested:

- User registration and verification process
- Room availability status check
- Room booking and payment process
- Waiting queue functionality
- Room cancellation and refund process
- Integration of the various functionalities (whether all the functionalities are simultaneously working properly)
- Food options selection and availability

5. Software Risk Issues

Performance Issues:

 As the software uses a large and extensive database, concurrent operations can cause it to experience a slowdown, resulting in delayed outcomes.

Compatibility Issues:

 The system requires a proper python environment to run with all necessary modules. Therefore the program might not run on all devices

6. Features to be Tested

Following list of features need to be tested in the software:

- New user registration and verification
- Login features for existing users
- Room availability status check
- Room booking and payment process check
- Confirmation of bookings
- Waiting queue functionality
- Booking cancellation and refund process
- Feedback form submission and processing
- Exceptions and error handling

7. Features not to be Tested

The features which will not be tested are:

- The frontend design of the website
- Its compatibility with older versions of software
- Performance under high traffic

8. Approach

8.1 Testing Levels

GUI Testing:

The graphical user interface (GUI) of the Online Guest House Booking System will be tested to ensure proper functioning of the User Interface so that are no issues upon completion of the project. All the buttons, menus and forms will be tested, whether they are showing proper outputs.

Unit Testing:

The classes and methods in the source code of the guest house booking system will be tested to ensure proper functioning of the backend of the system. Unit testing will be performed using automated testing framework Unittest and will involve creation of test cases for each test class or method.

8.2 Test Tools

- Automated unit tests will be performed using Unittest
- GUI Testing will be done manually.

8.3 Measures and Metrics

The system performance is measured by a pass-fail system whose criteria will be defined later.

9. Item Pass/Fail Criteria

The system output will be compared to the golden output (expected output). If the system output matches the golden output, then the test passes otherwise the system fails and must be reworked on.

10. Suspension Criteria and Resumption Requirements

Suspension criteria:

- Unexpected critical bugs
- Faulty features which form the basis of other functionalities. For example, the registration functionality is one of the basic features of the system, without which further operations cannot be performed. Thus, the system would require us to fix this function to proceed to the next features like login, room availability checking, room booking, feedback etc.
- Misfunctioning of the testing environment

Resumption Requirements:

- The faulty features have been removed and successfully tested
- Restabilization of the testing environment

11. Test Deliverables

For testing procedure following entities will be required:

- Test plan containing the exact procedure to test the software.
- Test cases.
- Expected outputs
- Individual Test Reports
- Test Report Summary

12. Remaining Test Tasks

All major functionalities have been included in the initial test plan and have been thoroughly tested. Therefore, it is expected that no essential function remains to be tested in the later stages of development. However additional tests may be required if new features are introduced thereafter.

13. Environmental Needs

The following elements are required to support the overall testing effort at all level of the Online Guest House Booking System:

- A device (laptop/desktop) to run the application
- Access to internet
- An up-to-date browser
- Access to an online database which is connected to the application
- Access to a server to host the website
- A python environment with all necessary modules installed

The testing data will be provided either manually at the time of testing (user input) or use a set of data that has already been stored in the database (before the time of testing)

14. Staffing and Training Needs

- The testing will be conducted by the members of the team sharing equal responsibility.
- The testing team must be well acquainted with the testing environment and the testing tools being used.
- No extra training is required for testing the software apart from arranging and testing the environmental needs.

15. Responsibilities

- All testing tasks will be divided equally among the members of the team.
- Decisions will be taken unanimously.
- All features are to be tested by the team members.
- All reports are to be written by the team members.

16. Schedule

Time has been allocated within the project plan for the following testing activities.

- The development of the project will be completed in one week.
- The testing will be conducted in one week after the development. Making testing reports and resolving issues will be done in the same period.

17. Planning Risks and Contingencies

The development is to be completed in one week. In case of a delay:

 The test plan will prioritize the testing of essential features such as login, registration, booking and payment

- Features which are not absolutely necessary like feedback may not be tested
- Extra features included in the development which were not specifically asked by the client may not be tested
- Minor defects may be ignored
- The plan will prioritize the functionalities over the User Interface

18. Approvals

- The project will first be approved by all the members of the team before presenting it to the Teaching Assistants.
- The project will then be shown to the TA's and tweaked according to their suggestion before being presented in front of the professors.