Test Plan

**Project Name: Bommarillu Hotel** Management and Billing System.

**Test Engineer:** Team 6

**Date:** 08/12/2023

**Prepared by:** Team 6

**Reviewed by:** Srirangam Bhavani

**1. Test Objective:**

* The objective is to validate the functionality of the “**Bommarillu Hotel Management and Billing System**" for Booking, Payment, and Manage Records as per the given specifications.
* Final product expectations:
* Production-ready software.
* A set of stable test scripts for functional, performance, accessibility testing, and User Acceptance Testing (UAT) execution.

**2. Scope of Testing:**

| **Module** | **Roles** | **Description** |
| --- | --- | --- |
| Booking | User/Admin | To book rooms for new guests and issue them a unique ID. |
| Payment | User/Admin | To make payment by using guests phone number. |
| Record | Admin | Only Admin people can view records by providing valid credentials. |

**a) Within Scope:**

* Functional Testing
* Cross-Browser Testing

**b) Out of Scope:**

* User Interface
* Hardware Interface
* Software Interface

**3. Test Strategy:**

**a) Levels of Testing:**

* **System Testing:** Checking the entire Hotel Management System's functionality. Verifies if all modules (Booking, Payment, Record Management) work compatible.
* **User Acceptance Testing:** Verifying the system's usability by stakeholders or end-users. It ensures that the system is user-friendly and meets the business requirements.

**b) Types of Testing:**

* **Smoke Testing:** Validate if the most critical functionalities or modules of the hotel system work after a build or update.
* **Sanity Testing:** Verifying specific essential or fundamental functionalities post-development or modification to ensure their stability.

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**c) Test Design Technique:**

* **Boundary Value Analysis(BVA):**

In this technique we are going to check the boundaries values of the given maximum and minimum values.

(Minimum-1) (Minimum+1) and (Maximum – 1) (Maximum +1)

* **Equivalence class partition(ECP):**

In this technique, we are to partition the data into various classes we can select according to class and then tests according to the requirement.

It reduces the number of test cases and saves time for further testing.

* **State transition technique:**

State Transition testing is a process-oriented test design technique that focuses on states, events that initiate a transition to another state and actions resulting from such events. Tests are designed to execute valid and invalid state transitions.

* **Error handling:**

Error handling is the process of responding to and recovering from error conditions in program.

**d) Configuration Management Tool:**

* + Git (Code Configuration Management – CM)

**e) Terminology:**

* + Test plan
  + Test case
  + Test Scenario
  + Booking
  + RTM – Requirement Traceability Matrix
  + Defect log
  + Use case
  + Menu

**f) Area Planned for Automation:**

* + Since Automation, testing is beyond scope, no area is planned for Automation testing.

**g) List of Automation Tools:**

* + No Automation tools are needed for this testing.

**4. Exit and Entry Criteria:**

**a) Entry Criteria:**

* + Code implementation is performed.
  + Requirements are defined and approved.
  + Sufficient test data is available.
  + Test cases are developed and reviewed.
  + Test Environment is ready.

**b) Exit Criteria:**

* + 99% of test scripts were executed.
  + The pass rate is equal to 95%.
  + No critical defects left.
  + 95% of medium severity defects closed.
  + Remaining bugs are fixed.

**5. Test Deliverables:**

|  |  |  |
| --- | --- | --- |
| **Before testing** | **During testing** | **After testing** |
| Test plan document | Test tool | Test Result & Reports |
| Test case document | Test data | Defect Reports |
| Test design document | RTM |  |
| Requirement document |  |  |
| Installation Guidelines |  |  |

**6. Roles and Responsibilities:**

|  |  |
| --- | --- |
| **Roles** | **Responsibility** |
| **Project Manager** | * Manages the whole project. * Define project direction. * Risk Management. |
| **Test Engineer** | * Writes the test cases. * Execute the test cases. * Report the defects. * Identifying the test design techniques. |
| **Senior QA** | * Taking in- charge of Quality Assurance. * Confirms whether the testing process is meeting specified. requirements or not. |
| **Configuration manager** | * Preparation of complete configuration documentation. * Plan and execute configuration management throughout the lifecycle of the project. |

**7. Risks and Mitigations:**

**a) Risks and Contingency:**

* + Ensure availability of suitable and protected guest data.
  + Meet prerequisites indicated by stakeholders.
  + Verify suitability of test data.

**b) Risk and Mitigation:**

* + Meet outstanding prerequisites.
  + Redefine data.
  + Review the test plan and modify components.
  + Restore data and restart.

**8. Schedule:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **Members** | **Estimate effort** | **Start date** | **End date** |
| Create the test specification | Test designer | 160-man hour | 08-12-2023 | 18-12-2023 |
| perform test execution | Tester and tester administrator | 60-man hour | 18-12-2023 | 20-12-2023 |
| Test report | Tester | 6-man hour | 20-12-2023 | 22-12-2023 |
| Test delivery | Test administrator | 13 man hour | 23-12-2023 | 25-11-2023 |
| Total |  | 239 man hour | 08-11-2023 | 25-12-2023 |

**9. Hiring and Training:**

* + Minimum 2 years of experience in manual testing.
  + Database knowledge.
  + 1-month training under the domain and application.

**10. Test Environment:**

|  |  |  |
| --- | --- | --- |
| **No** | **Resources** | **Descriptions** |
| 1 | server | Need  a database   server |
| 2 | Test tool | Develop  a test tools which can  auto generate the test result to the predefined form |
| 3 | Network | Setup a LAN gigabit and 3 internet lines with  speed at least 10Mb/s |
| 4 | Computer | At least 10 computer run windows 10,Ram,4GB,CPU 3.6Hz,Multiple browsers |
| 5 | MS tools | Test case preparation test case execution defect management ,test reporting and check list of test |

**11. Assumption:**

* + Exploratory testing carried out once the build is ready for testing.
  + Test case design activities performed by the QA group.
  + Performance testing is not considered.
  + Test environment and preparation activities owned by the development team.

**12. Approval Information:**

* + **Test Lead:** Sravani (Reviews test cases, test conditions, test data, and test report)
  + **Test Manager:** Srirangam Bhavani (Reviews the content of the test plan, test strategy, and test estimates, signs off on it)
* **Signature:**
  + **Name:** Nageswarao G
  + **Role:** Project Manager
  + **Date:** 25-12-2023

**13. Test Metrics:**

* Passed test cases percentage:(no. of test cases passed /no. of test cases executed) \*100
* Failed test cases percentage:(no. of test cases failed/no. of test cases executed) \*100
* Fixed defect percentage:(defects fixed/defects reported) \*100
* Accepted defect percentage:(Defects accepted as valid by dev team/Total defects reported) \*100
* Defects deferred percentage:(Defects differed for future releases/total defects reported) 100
* Critical defects percentage:(Critical defect/total defects) \*100
* Execution percentage: (no. of test cases executed / total no. of test cases) \*100.