Table of Contents

1.Introduction……………………………………………………………………………..1

1.1.Statement of Purpose...………………………………………………………………..1

2.Overview of the Product…...……………………………………………………………1

2.1. Unit Testing …………………………………………………………………….........1

2.2. Integration Testing …….........………………………………………………………..2

2.3. System Testing ……………………..………………………………………………...2

3. Project Resources ………………………...…………………………………………….3

3.1. Hardware and Software …………………………….………………………………...3

4. Test Schedule …………………………………………………………………………..4

5. System Test Cases ………………..…………………………………………………….4

6. References …………………………………………………………………………....11

**1. Introductions**

**1.1. Statement of Purpose**

This document describes the test approach for the software development project for the Online Ticketing System. This document sets the scope of various tests to be conducted, the activities to be completed, the general resources required and the methods and processes to be used to test before the product is delivered to the customer.

**2. Overview of the Product**

The Online Ticketing System software provides the user to search for different events through online. This system provides the user to reserve the tickets for different events through online. The user can register with his details or else he can reserve the tickets as a guest. The user can reserve the tickets through online and he can pay the money at the event time. The user can cancel the ticket. The admin update the information about new events and delete the oldest events.

A test strategy is an outline that describes the testing approach of the software development life cycle. Testing strategies describe which types of testing are to be performed, and which entry and exit criteria apply. As we are following waterfall methodology we are following 3 test strategies. They are unit testing, integration testing and system testing.

**2.1. Unit testing**

Unit testing uses white box testing, which is conducted to find incorrect code in each module. This type of testing is generally done by the programmers and also by the testers. In developing this project waterfall model is used, the role of the test organization was not made explicit until the system testing phase. For every module in our project software implementation process is reviewed. Every module is subjected to undergo unit testing where white box testing, also known as “basic path testing” is done. Unit testing is conducted by the developer. The objective of these reviews is to ensure correctness and to test the functional integrity within each individual module. Issues to consider are matching of parameters and their data types, arguments, relative attributes.

**2.2. Integration testing**

Integration testing uses black box testing in which individual software modules are combined and tested as a group and it is performed after unit testing. Once the individual modules and their relative data structures and methods have been tested, the integration phase will examine the interaction between different modules and its purpose is to find whether the modules are working in the same manner as required before and after integration. Integration testing can be done by any member of the team. This test proves that all areas of the system interface with each other correctly and that there are no gaps in the data flow. Final integration test proves that system works as an integrated unit when all the fixes are complete. The actual testing method used for this phase will be the “Black box” method.

**2.3. System testing**

The purpose of system testing is to ensure that the software does what the customer expects it to do. There are two main types of system tests: function tests and performance tests. Functional testingrequires no knowledge of the internal workings of the software, but it does require knowledge of the system's functional requirements. It consists of a set of tests that determines if the system does what it is supposed to do from the user's perspective. Once the basic functionality of a system is ensured, testing can turn to how well the system performs its functions. Performance testingconsists of such things as stress tests, volume tests, timing tests, and recovery tests. Reliability, availability, and maintenance testing may also be included in performance testing. This test intends to prove that the functionality delivered by the team is as specified by the team in requirements document. It also assesses the quality of the software and ensures that the software will successfully work according to the intended requirements by the customer. The testing strategy for the validation of the system as a whole will also utilize the “black box” method. All possible user input must be examined and any deficiencies addressed.

**3. Project Resources**

The Infinity team consists of four individuals. They are:

* Nagendra Babu Pasupuleti
* Avinash Agumamidi
* Prakriti Pandey
* Gayatri Bhimani

Nagendra Babu Pasupuleti and Avinash will coordinate and work as the development team.

Gayatri Bhimani and Prakriti will combine into a team and coordinate the integration testing, system testing and acceptance testing phases of the project.

Formal reviews and also other test phases are to be coordinated by all the team members.

**3.1. Hardware and Software**

The testing phases will require at least one personal computer with the following specifications:

* a Pentium 4 microprocessor running at 2.0 GHz or above
* a minimum of 128 megabytes of system RAM
* a hard drive with at least 2 gigabytes of free space
* an XGA screen display 14” or larger
* a graphics card with 16 megabytes or more of RAM

**4. System Test schedule**

For the Testing phase, there should be a proper working schedule. The following schedule will apply. Unit testing will take 3 days, integration testing will take 3 days and the system testing will take 1 day and acceptance testing will take 1 day.

|  |  |  |
| --- | --- | --- |
| **Task** | **Who** | **When** |
| **Unit Testing** | **Nagendra, Avinash** | **During coding** |
| **Integration Testing** | **Nagendra, Avinash** | **During and After coding** |
| **System Testing** | **Gayatri,Prakriti** | **After coding** |

**Table 1. Test Schedule**

**5. System Test Cases**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Login form | What | Specification | Data | Expected  Result | Actual  result | Pass/  Fail |
| Valid | User name password  Click login | John  1America | Go to home page |  |  |
| Empty field | Username password  Click login | Blank  1America | Be on same page |  |  |
| Empty field | Username password  Click login | Blank  Blank | Be on same page |  |  |
| Invalid | Username password  Click login | John  America | Be on same page |  |  |
| Registration  form | Valid | Name  User ID  New password  Confirm new password  Gender  Age  Security question  Security answer  Address  Email  Phone number  DOB  Click  submit | John  1234  1America  1America  male  21  what is your favourite car  Honda  3415 taft blvd  567458765  08/11/1999 | Go to sign in page |  |  |
| Empty field | Name  User ID  New password  Confirm new password  Gender  Age  Security question  Security answer  Address  Email  Phone number  DOB  Click  submit | John  1234  male  21  what is your favourite car  Honda  3415 taft blvd  567458765  08/11/1999 | Be on same page |  |  |
| Empty field | Name  User ID  New password  Confirm new password  Gender  Age  Security question  Security answer  Address  Email  Phone number  DOB  Click  submit | Blank  Blank  1America  1America  male  21  what is your favourite car  Honda  3415 taft blvd  567458765  08/11/1999 | Be on same page |  |  |
| Invalid field | Name  User ID  New password  Confirm new password  Gender  Age  Security question  Security answer  Address  Email  Phone number  DOB  Click  submit | John  1234  1America  1America  male  21  what is your favourite car  Honda  3415 taft blvd  567458  08/11/1999 | Be on same page |  |  |
| Invalid | Name  User ID  New password  Confirm new password  Gender  Age  Security question  Security answer  Address  Email  Phone number  DOB  Click  submit | John  1234  1America  1America  male  21  what is your favourite car  Honda  3415 taft blvd  567458  1999/08/11 | Be on same page |  |  |
| Search event form | Valid | Event Name or Category  Event Date  Event location  Click search | basketball | Display all events of that name |  |  |
| Valid | Event Name or Category  Event Date  Event location  Click search | 12/25/2017 | Display all events on that date |  |  |
|  | Event Name or Category  Event Date  Event location  Click search | Clark student center | Display all events on that location |  |  |
| Empty field | Event Name or Category  Event Date  Event location  Click search | Blank  Blank  Blank | Be on same page |  |  |
| Invalid | Event Name or Category  Event Date  Event location  Click search | 1234  6789 | Be on same page |  |  |
| Personal information form | Valid | Event name  Event date  Event time  Email  Phone number  Contact address  Name on card  Credit/debit card number  CVV  Expiration date  Click confirm reservation | Displayed  Displayed  Displayed  xay@gmail.com  2345167987  Wichita falls  John ray  4356789876  567  09/2020 | Reservation successful  And confirmation number is provided |  |  |
| Empty field | Event name  Event date  Event time  Email  Phone number  Contact address  Name on card  Credit/debit card number  CVV  Expiration date  Click confirm reservation | Displayed  Displayed  Displayed  xay@gmail.com  Blank  John ray  4356789876  567  09/2020 | Be on same page |  |  |
| Empty field | Event name  Event date  Event time  Email  Phone number  Contact address  Name on card  Credit/debit card number  CVV  Expiration date  Click confirm reservation | Displayed  Displayed  Displayed  xay@gmail.com  2345167987  Wichita falls  John ray  4356789876  567  Blank | Be on same page |  |  |
| Invalid field | Event name  Event date  Event time  Email  Phone number  Contact address  Name on card  Credit/debit card number  CVV  Expiration date  Click confirm reservation | Displayed  Displayed  Displayed  xay@gmail.com  23451  Wichita falls  John ray  4356789876  567  2020/09 | Be on same page |  |  |
| Invalid | Event name  Event date  Event time  Email  Phone number  Contact address  Name on card  Credit/debit card number  CVV  Expiration date  Click confirm reservation | Displayed  Displayed  Displayed  xay@.com  2345167987  Wichita falls  John ray  4356789876  567  09/2020 | Be on same page |  |  |
| Add event form | Valid | Event name  Category  Date  Time  Location  No of seats available  Fare  Image  Click add event | Basketball  Sports  09/11/2017  5 PM  Bolin hall  35  $20  Browse image | New event is added and displayed |  |  |
| Empty  Field | Event name  Category  Date  Time  Location  No of seats available  Fare  Image  Click add event | Basketball  Sports  09/11/2017  Blank  Blank  35  $20  Browse image | Be on same page |  |  |
| Empty field | Event name  Category  Date  Time  Location  No of seats available  Fare  Image  Click add event | Basketball  Sports  09/11/2017  5 PM  Blank  35  Blank  Browse image | Be on same page |  |  |
| Empty field | Event name  Category  Date  Time  Location  No of seats available  Fare  Image  Click add event | Basketball  Sports  09/11/2017  35  $20  Browse image | Be on same page |  |  |
| Invalid | Event name  Category  Date  Time  Location  No of seats available  Fare  Image  Click add event | Basketball  Sports  09/11/2017  5 PM  Bolin hall  dfth  ghyu  Browse image | Be on same page |  |  |
| Add location form | Valid | Location name  Location address  Number of seats  Click add location | Mid western  Bolin hall  50 | New location is added and displayed |  |  |
| Empty field | Location name  Location address  Number of seats  Click add location | Mid western  Bolin hall  Blank | Be on same page |  |  |
| Empty field | Location name  Location address  Number of seats  Click add location | Mid western  Blank  50 | Be on same page |  |  |
| Invalid field | Location name  Location address  Number of seats  Click add location  Click login | Mid western  Bolin hall  $50 | Be on same page |  |  |
| Invalid | Location name  Location address  Number of seats  Click add location  Click login | 1234  Bolin hall  50 | Be on same page |  |  |
| Add category form | Valid | Add category  Click add category | Sports | Category is added and displayed |  |  |
| Invalid | Add category  Click add category | 1234 | Be on same page |  |  |
| Empty field | Add category  Click add category | Blank | Be on same page |  |  |

Table 2. System Test Case

**6. References**

**1.**  Sommerville I., Software Engineering 9th edition, Delhi, Pearson Education, Ltd, 2011.

**2.**  Pressman Roger S., Software Engineering – A Practitioner’s Approach 7th edition, New York, McGraw-Hill, 2010.