Mercury Tours

Testing Strategy Version 0.01

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Initial History

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| Date | Version | Author | Description |
| 07/11/2021 | 0.01 | Felipe Ruiz – aka Phil | Test four (4) modules Mercury Tours |
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# Scope

The scope: our testing is done to the Mercury Tours Site as described by the high level requirement document.

Testing will be done and covers four (4) critical modules of the Mercury Tours: Upon completion of the testing strategy , such document will be reviewed by the acting project manager, Ms. Satya Mantha. Furthermore, approval of this document will follow her initial judgement of testing analysis. Testing activities carried out with the expected number of cases per modules, as presented in the table below:

|  |  |  |
| --- | --- | --- |
| Scope number | Module name | Expected no. test cases |
| 1 | Home Page | 30 |
| 2 | Sign On | 20 |
| 3 | Register | 25 |
| 4 | Flights | 40 |

# Test Approach

The process of testing must involve the roles and responsibilities of the mercury tours which team members must align their domain knowledge to test those four modules to address immediate bugs. The hierarchy at test approach consist of project manager in the top role, mercury tours stakeholder’s business, mercury tours team members domain knowledge, and mercury test team. All team members have a degree of input for key supporting areas when needed it. At such, it is expected that domain knowledge of testers and participants will aid in the creation of test approach that will exceed our client’s expectation that of Mercury Tours.

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| --- | --- | --- | --- | --- |
| Testing Scenario – Matrix of responsibilities | | | | |
| **To do list** | **QA Tester** | **Business Tester** | **Team Test** |
| Test cases load | Felipe Ruiz | Afrose Khan | Mercury test team |
| Walkthrough Business User | Phil Agee | Vito Echeverria | Mercury test team |
| Activity list and plan | Phil Agee | Afrose Khan | Mercury test team |
| Test data security | Felipe Ruiz | Afrose Khan | Mercury test team |
| Test business module | Usman Safa | Afrose Khan | Mercury test team |
| Validate tests performance | Felipe Ruiz | Vito Echeverria | Mercury test team |
| Write test plan | Satya Mantha | Afrose Khan | Mercury test team |
| Actual outputs | Felipe Ruiz | Vito Echeverria | Mercury test team |
| Training all levels | Angelita Gaitan | Afrose Khan | Mercury test team |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Testing Scenario Timeline | | | | | | | | | |
| Activity | Jul-21 |  |  |  |  |  |  |  |
| Test plan |  | Aug-21 |  |  |  |  |  |  |
| Test modules |  |  | Sep-21 |  |  |  |  |  |
| Auto test plan |  |  |  | Oct-21 |  |  |  |  |
| Environment |  |  |  |  | Nov-21 |  |  |  |
| Test signoff |  |  |  |  |  | Dec-21 |  |  |

# Test Environment

Creation of test environment, here the testers will test to check if any bugs, or failures to the application occurs upon launching on the web server designated for such trial run. It will test the integration of components and it will set the stage for system testing. System testing, where all the test cases will be executed, and the defects will be logged as found. Such reporting will bring us into beta testing where those domain knowledge testers from Mercury Tours can test all the bells and whistles of the trial site, the initial site is hosted in the testing mercury tours server, where dummy transactions are review for bugs, all features of the application will be executed. The network configuration and software will be identical to the planned production site. It is in the interest of Mercury Tours, to allow us the internal testing of the site. Mercury Tours will provide dummy data that can be used during testing. These data sets are limited yet it helps as a good function to analyse the system performance. The testing Mercury Tour server provide storage and sufficient RAM for application to memory relations. It can be the best system for our backup test data trials and layers of additional application recovery protocols have been set to analyse the restore strategy.

# Testing Tools

Testing scenario is an input and output business process between developers and stakeholders at Mercury Tours. All conditions for testing shall follow the agile software development protocols where for every unit of input or production, immediate output for testing and analysis must be implemented. If any changes from stakeholders, last minutes requests or additions to features must be submitted by the test team member to the test team manager for approval – a clear signing off is required. Communication between the entire test team and mercury tours is critical during testing.

Implementation of some automation tools is required upon complete of all tests and analysis done by a QA manual tester. Here is critical to understand both the requirements and what the environment can deliver upon entering the testing scenarios of four (4) modules. Some features in home page, sign on, register and flights can be tested with automation protocols.

Testing Tool, the following tools should be provided to the Mercury Team prior to initializing case analysis.

1. Browser testing and automated testing Selenium does the job.
2. Project & task management Jira is the bug tracking tool.
3. Load and real load scenarios LoadNinja load framework

Communication where at minimal test material and documentation must be provided to perform all testing levels. It shall include a test scenario of four (4) modules, seeking the originated input from domain knowledge where the desire output is wanted. Testing flow scenario where the testing processes carried out and how they relate to each other given the control test scenario. Each test case must have its own scenario for optimal analysis of output. Mercury Tours team shall be designated with a monitoring area where the outline rules of the testing protocols are graded according to severity levels. In addition, a check list will be presented to test each scenario of modules to review if procedures are being followed. Note: once the test scenario modules has been fully tested, the project manager shall finalize the check list and sign off the modules as being completed.

# Release Control

To avoid downtime, bugs and having very unhappy and angry users Mercury Tours, has created a release management plan to make sure that test execution are done and ready to release.

Plan release follows strongly that scope number, module name and expected no. of test cases are written and clearly understood by mercury tour testers as laid out in the list of requirements. Design, software development cycles, testing, deployment, operations with maintenance as all testers see it fit, planning must conform to the principles as describe by the actual definition of the SDLC. Or software development cycle. Furthermore, the actual workflow should explain how the release is deployed, at such it must include:

1. Timelines
2. Delivery dates
3. Requirements
4. Entire project scope

Build release after final steps to the release plan are executed. The build release shall take several iterations, or repetitions, here release control could require the use of automation tools for testing. List of defects shall be logged, as issues are identified, the four (4) modules are sent back for test flow, again and again until is done right and lesser the number of bugs found.

UAT or user acceptance testing shall be orchestrated with beta testing to get actual use of the product by users at mercury tours. As part of the iteration process, where defects are found, the team must regroup into the drawing board for analysis, as redesign gets implemented the goal is greater integrity. All testing stages must pass before final implementation and release are considered.

Prepare release – after several iterations are done to maximize integrity and robustness of the four (4) modules, release preparation shall include the quality review done by the QA team. Its check list has minimum acceptable standards and business requirements outline by the test plan for its sole purpose is to get ahead of any additional defects that could come out. Completion of review means, validation and release for deployment, here the four (4) modules move into a live environment, and approval by the project manager is optimal.

Deploy release, D-day for the developers and QA team, here the work and man hours will see the result. The build out goes to production and gets integrated into the live production environment. Furthermore, communication is critical here which includes messaging and education on the product to both the end users and mercury tours at large. Messages shall include instruction in the nature of the release and how to operate within the new features. Training must continue until everyone is comfortable with the new environment and its new features. Finally, deployment stage, the development team should meet to assess the release’s performance and discuss if the deployment resulted in any major issues.

# Risk Analysis

Mercury Tours site has four (4) modules for testing and estimating risk. It must deploy a risk-based test process which incorporates five (5) critical sections:

1. Risk identification (risk identification and categorization)
2. Risk analysis (formulate the test objectives)
3. Risk response (document dependencies, requirement, cost and time software test)
4. Test scoping (stakeholders’ analysis of four (4) agreed upon modules for testing)
5. Test process definition (standard format is agreed upon after all testing is done.)

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| --- | --- | --- |
| Test activity | Risk identification | Consult mercury tours business and technical staff.  Prepare draft register of risks |
| Workshop | Risk analysis | Discuss risks to home page, sign on, register page and flights page |
| Tester Activity | Risk response | Formulate test objectives and test techniques.  Document dependencies, requirements and costs.  Assign test risk score. |
| Review and decision | Test scoping | Agree scope of risks to be addressed by testing.  Scope limited to only 4 modules with expected number of cases.  Responsibilities final decision project manager, cost is budgeted by Mercury Tours. |
| Test activity | Test process definition | Worksheet and workflow with error defects can guide parts of the test process.  Further analysis of risk can mitigate test stage definitions. |

# Review and Approvals

Mercury Tours test scenario shall consist of a string of business processes, which lead to an expected outcome. It has been agreed that only four (4) modules should be tested. The limitation was agreed upon with stakeholder’s understanding that more modules and test need to be included for an overall analysis of the performance of the site. Those four (4) modules included yet not limited to:

|  |  |  |
| --- | --- | --- |
| Scope number | Module name | Expected No. of test cases |
| 1 | Home page | 30 |
| 2 | Sign on | 20 |
| 3 | Register | 25 |
| 4 | Flights | 40 |

Any changes to the test scenarios must be submitted by the mercury tour team member to the project manager for input analysis and signoff.

Communication between test team and Mercury tour members is critical during testing. There may be many activities going on at one time and all resources will be call upon to assist in the successful execution of all testing modules.

It is everyone’s responsibility to review the issues as register in the defects mercury tours database for analysis of progress on issues related to testing of modules.

Daily test meetings, it has been agreed to schedule biweekly conferences calls between mercury tour team and our QA testers for progress analysis. Several testing tools for automation such as:

1. Selenium – functional and regression testing
2. Jira – Quality centre and analysis of progress
3. LoadNinja – for load testing

For testing documentation:

* Test scenario – four (4) modules are tested to get desire results.
* Scenario process flow – here the processes are carried out and how they relate to each other with a given test module.
* Test case – a test case has been developed for each of the different four (4) modules.
* Checklist – a check list will be available for each of the four (4) modules to ensure testing procedures are followed. Once the test scenario has been fully tested, the test analysis is submitted for review to the project manager, Ms. Mantha, who will finalize the checklist and sign off the site.