Database EvaluatOr

System Test Report

Document history

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Table of Contents

[1 Introduction 3](#_Toc463863066)

[1.1 Objectives 3](#_Toc463863067)

[1.2 Team Members 3](#_Toc463863068)

[2 Scope 4](#_Toc463863069)

[2.1 Inclusions 4](#_Toc463863070)

[2.2 Exclusions 4](#_Toc463863071)

[3 Test Environment 5](#_Toc463863072)

[4 Test Schedule 5](#_Toc463863073)

[5 Test Results 5](#_Toc463863074)

[6 Issues list and Analysis of Test Results 5](#_Toc463863075)

[6.2 Analysis of Test result 9](#_Toc463863077)

[7 Appendix 9](#_Toc463863078)

[7.1 Severity 9](#_Toc463863079)

[7.2 Priority 10](#_Toc463863080)

[7.3 Exit criteria 10](#_Toc463863081)

# Introduction

This activities of System Test focused on the Functional testing. Functional testing base on the analysis of the specification and test plan to verify the function built is useful and fulfil the users’ needs and expectations or not. All the defined inclusion scope has in the test

## Objectives

* Client application

Client application is small and light weight application which will be executed by customer on their database system and application generated encrypted dump file which contains all the agreed database and SQL instance parameter values.

* Website

Customer can create their account on the website.

Customer can download Client application from the website.

Customer also can use FTP to upload dump file and download the final report.

* Database Evaluator

Database Evaluator (DBE) can generate the final diagnosed report.

Through testing, to achieve the following objectives:

* Product testing has been implemented to meet the design requirements, including: whether to implement each function point, the business process is correct.
* Operation and operation of the provisions of the stability of the product.
* Bug number and the defect rate is controlled within the acceptable range.

## Team Members

|  |  |
| --- | --- |
| **Resource Name** | **Role** |
| Patrick Cura | C# Developer/ Tester |
| Hardik Kansara | Database Specialist/ Tester |
| Kwinno Pineda | Website Developer/ Tester |
| Janet Gregory | Project Manager / Tester Manager |

# Scope

All the defined inclusion scope has in the test plan will be tested during functional testing. All exclusion scope will not be tested.

## Inclusions

* Client application
  + Install
  + Uninstall
  + Execute on user’s system
  + Collect/check the parameters of user’s database
  + Generate the dump files of parameters of customers’ database
* Website
  + User: register
  + User/ Administrator: login in
  + User: forgot password
  + User: download client application form website
  + User: upload the encrypted dump files via website
  + User: view and download the final diagnosed report
  + Administrator: upload the final diagnosed report
* Database Evaluator
  + Quote the encrypted dump files
  + Generate the final diagnosed report

## Exclusions

* This project will not support the all type of operating system except Microsoft Windows.
* This project will not support the all type of database except Microsoft SQL 2008 R2 and Microsoft SQL 2012.

# Test Environment

* Operating system
* Microsoft Windows 7 and 10
* Windows Server 2008 R2
* Windows Server 2012

Client application and database evaluator must be run on windows environment only and used by customer.

* Database type and version
* SQL Server 2008 R2
* SQL Server 2012
* Internet
* Other software

# Test Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| **Task Name** | **Start** | **Finish** | **Comments** |
| **System test** |  |  |  |
| System plan | 19/09/16 | 21/09/16 |  |
| Test case | 22/09/16 | 24/09/16 |  |
| Iteration One | 26/09/16 | 27/09/16 |  |
| Iteration Two | 29/09/16 | 30/09/16 |  |
| Iteration Three | 01/10/16 | 03/10/16 |  |
| Iteration Four | 05/10/16 | 06/10/16 |  |
| Test report | 09/10/16 | 09/10/16 |  |

# Test Results

* See Document:

System Test Results.xlsx

# Issues list and Analysis of Test Results

## Issues List

* Website

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Severity** | **Priority** | **Result** | **Comment** |
| W001 | B | B | Register Page: After registered, user cannot receive the confirmation email |  |
| W002 | E | E | Login Page: The content of pop-up message is wrong  ERROR: Invalid email address. Lost your password? | Invalid email address --> Invalid username/email |
| W003 | B | B | Forgot Password Page: Cannot get new password. | The email could not be sent. Possible reason: your host may have disabled the mail() function. |
| W004 | D | E | Home Page: Change the fill colour of Subscribe button |  |
| W005 | E | E | Documentation Page: change the title of help document |  |
| W006 | E | E | Documentation Page: add the page number of the help document |  |
| W007 | D | D | Contact Page: Input the incorrect email still can send the contact message |  |
| W008 | B | D | About Page: Click Next Page cannot open the next page | 404 (Page Not Found) Error |
| W009 | D | E | Upload Page: Change the fill colour of Select File Button |  |
| W010 | D | E | Upload Page: Change the fill colour of Upload File Button |  |
| W011 | B | B | Upload Page: Cannot upload the dbe file |  |
| W012 | B | B | Dashboard: Cannot send the report to user | The attached file is missing/deleted. |

* Client Application

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Severity** | **Priority** | **Result** | **Comment** |
| CA001 | D | E | Cannot select the save path |  |
| CA002 | C | C | The value of server name list is wrong. | The current testing machine is not installed any server, the server name list still has value. |
| CA003 | D | D | The Client Application does not in the front of current window when it has been executed. |  |
| CA004 | D | D | After generated the dump file, the database name becomes can be selected. | The current testing machine does not install any database or it does not install and database on the selected server |
| CA005 | D | D | The generated dump file is empty when using normal user to execute the Client Application | Suggest: to add the text label on the application to inform run this application as administrator |
| CA006 | D | E | After generated the dump file, does not have the pop-up message | Suggest: to increase the pop-up message when finished generating file |

* Database Evaluator

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Severity** | **Priority** | **Result** | **Comment** |
| DB001 | D | D | Just gives the default same name of report | Suggest: to give the same name as selected dbe file |
| DB002 | D | E | After generated the report, does not have the pop-up message | Suggest: to increase the pop-up message when finished generating the report |
| DB003 | D | D | Lack the headline of Consolidated Scorecard table | Severity, Type, Parameter, Status |
| DB004 | D | D | Lack page number of report | Add the page number of report |
| DB005 | D | D | Does not display the status on the details of each parameter | Suggest: to increase the status of each checked parameter to show it passed or no passed |
| DB006 | D | C | Cannot open the reference link when using the browse to open the PDF | See the sheet of "Reference Link Test" |
| DB007 | C | C | The content of Trace flag 1117 and Trace flag 1118 are wrong. | Trace flag 1117 has shown the content of Trace flag 1118 and Trace flag 1118 has shown the content of Trace flag 1117. |
| DB008 | D | C | The parameter has passed but it still shown the issue of the passed item. | If there is no issues in this item, just show the past status. |
| DB009 | C | C | The value of Auto Shrink is wrong | The value always displays the past status even the setting of this item is false |
| DB010 | C | C | The value of Compatibility level is wrong | The compatibility level is setting 90 (SQL Server 2005 (90)) |
| DB011 | C | C | The value of Max Degree of Parallelism is wrong | The value always displays the no passed status even the setting of this item is 32 |
| DB012 | C | C | The value of Server authentication is wrong | The value is setting Windows Authentication mode, the status of this item is still displays no-pass. |
| DB013 | C | C | The value of Memory- Min Memory is wrong | Memory- Min Memory is wrong is setting 2000000000, the status still displays passed. |
| DB014 | C | C | The detail content of Memory- Min Memory is wrong | The details content of Memory- Min Memory and Memory- Max Memory are the same. |

## Analysis of Test result

* This functional testing focused on a part of inclusions scope which has been defined in the test plan including. After developers fixed the defects and testers retested. The result met the exit criteria of test plan
* The pass rate of functional test cases is 100%. All discovered defects have been fixed, no leave over defects are not fixed. Testers can enter the next testing phase to do another testing

# Appendix

## Severity

|  |  |  |
| --- | --- | --- |
| **ID** | **Level** | **Definition** |
| A | Blocker | The system cannot be executed, crashes or a serious shortage of resources, the application module cannot start or abnormal exit, unable to test, resulting in system instability. |
| B | Critical | The impact of system functions or operations, the main function there are serious flaws, but will not affect the system stability. |
| C | Major: | The user does not implement the basic functions of the implementation, there is a reasonable way to correct, the user can perform basic operations. |
| D | Minor | The operator is not convenient to use, but does not affect the function of the realization. Can improve the function. |
| E | Cosmetic | The ease of use and the proposed features |
| Priority |  |  |
| **ID** | **Level** | **Definition** |
| A | Immediate | "Immediately resolve" that the problem must be resolved immediately, otherwise the system simply cannot meet the scheduled needs. |
| B | Urgent | Urgent need to solve, said the repair of the problem is very important, very urgent, related to the system's main function module can be normal. |
| C | High | "A high degree of attention", that there is time to be resolved immediately, or the system deviation from the larger demand or scheduled functions cannot be normal. |
| D | Normal | Normal processing into the personal plan to solve, said the problem does not affect the realization of demand, but affect other aspects of use. |
| E | Low | Low priority, that is, the problem must be confirmed before the release of the system can be resolved or confirmed to be resolved. |

## Defect/Bug Life Cycle

|  |  |
| --- | --- |
| **Status** | **Definition** |
| New | When a new defect is logged and posted for the first time. It is assigned a status NEW. |
| Assigned | Once the bug is posted by the tester, the lead of the tester approves the bug and assigns the bug to developer team. |
| Open | The developer starts analyzing and works on the defect fix |
| Fixed | When developer makes necessary code change and verifies the change, he or she can make bug status as "Fixed." |
| Pending retest | Once the defect is fixed the developer gives particular code for retesting the code to the tester. Since the testing remains pending from the testers end, the status assigned is "pending request." |
| Retest | Tester does the retesting of the code at this stage to check whether the defect is fixed by the developer or not and change the status to "Re-test." |
| Verified | The tester re-tests the bug after it got fixed by the developer. If there is no bugdetected in the software, then the bug is fixed and the status assigned is "verified." |
| Reopen | If the bug persists even after the developer has fixed the bug, the tester changes the status to "reopened". Once again the bug goes through the life cycle. |
| Closed | If the bug is no longer exits then tester assign the status "Closed." |
| Duplicate | If the defect is repeated twice or the defect corresponds the same concept of the bug, the status is changed to "duplicate." |
| Rejected | If the developer feels the defect is not a genuine defect than it changes the defect to "rejected." |
| Deferred | If the present bug is not of a prime priority and if it is expected to get fixed in the next release, then status "Deferred" is assigned to such bugs. |
| Not a bug | If it does not affect the functionality of the application then the status assigned to a bug is "Not a bug". |

## Exit criteria

* The functionality and performance of product has met the requirements of the product requirements specification (requirement analysis document).
* The error found in the system testing has been modified and the defect repair rate levels up to standard.
* The defect rate (Defect Rate): defect ratio after a full unit test cases found in less than 5%.
* Defect density (Defect Density): per unit length (typically 1000-bit line) code, or FP (Function Point) number of defects found in less than 5%.
* Test Coverage (Test Coverage): the degree of test code or use case is covered 100%.