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| Performance Testing Questionnaire |

# Introduction

This document describes the types of performance testing the Team offers and contains a questionnaire that requires completion. This will provide the information on different technology stack used for building the application and also to understand the expectation from performance testing.

## Types of Testing we can provide

### Functional Benchmark testing

Functional Benchmark Testing is used to determine the speed and effectiveness of the system in question. This type of analysis will typically occur with a single user and then with an expected average number of users. The user/s will be scripted to navigate through the major functionalities of the application without putting the system under a significant load. This event is typically performed to establish a baseline with which to compare future releases, to ensure the new code did not degrade the performance.

### Load / Concurrency Testing

Load/Concurrency Testing is designed to analyze how the system responds under an increasing load. This is typically done to ascertain the operating capacity of the system as well as identify any bottlenecks in the software and/or hardware. This portion of testing will typically occur with a base load of users and will increase at predefined intervals, until a maximum number of users are reached.

### Soak Testing

Soak Testing is the process of running a system at for a prolonged period of time with predetermined load. A typical Soak Testing event would execute predefined user events for a higher than average number of virtual users. Each script would be repeated continuously over the course of a 8/16/20/24 hour period. This puts a burden on memory and is used to reveal any memory leaks within the system as well as any issues that might appear with prolonged usage of the application.

# Questionniare

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| **OVERVIEW** | | | |
| Date: |  | Name: |  |

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| **APPLICATION INFORMATION** | |
| Application Name: |  |
| Application Overview: | (A brief introduction application) |
| Version to be tested: |  |

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| **WHY ARE YOU REQUESTING PERFORMANCE TESTING?** |
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| **YOUR APPLICATION INFORMATION** | | | | | | |
| Is this a new web application or an existing application with an established baseline-performance history? | | | | | | |
|  | New web application |  | Existing web application | | | |
| Dominant Browser Used | |  | | | | |
| Performance Testing Environment | | STAGING | | UAT | PRODUCTION | DR |
| Is Testing Environment inside Firewall | | | |  | | |
| Is Testing Environment External to Firewall (publicly available) | | | |  | | |
| Load Balance Mechanism Involved  *i.e. F5 and Round Robin or Observed, etc.* | | | |  | | |
| What technologies are used on the website(s) that will run against | | | |  | | |

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| **Questions for Performance testing** | | |
| 1 | Peak number of user seasons in the busiest hour |  |
| 2 | Maximum number of simultaneous users on your site at any **second** in time |  |
| 3 | Maximum page views in the busiest hour |  |
| 4 | Estimate average session length for a typical user |  |
| 5 | Average number of pages a user views per session |  |
| 6 | Are there any existing performance issues, If Yes, please provide details about the same |  |
| 7 | Do you have day wise user usage report, to analyze and planning the performance testing? |  |
| 8 | Maximum number of records required for testing (Ex. Search functionality is querying 100,000 records) |  |
| 9 | What is the maximum number of record available in the system for any client or survey? (Ex. Survey XXX or Client YYY has 4M records) |  |
| 10 | Are there any third party control(s) used in the application (Ex. Silverlight or Infragistics…etc) |  |
| 11 | Are there any peak and non-peak seasons in your application for any calendar year, if yes please provide details. |  |
| 12 | Which data base type is used for this system? (Ex. Oracle, MySQL, SQL Server) |  |
| 13 | Users accessing the application and behavior & average user session if you have statistics? (Ex. 30-40% perform their actions and log’s out, 30-40% login and stay in the system without logging out even after completing the tasks…etc) |  |
| 14 | Does your application supports mobile, tablet …etc |  |
| 15 | When was the last time performance testing conducted, please provide data. |  |
| 16 | What is the frequency of performance testing (Ex. All Major and Minor release or only Major or quarterly) |  |
| 17 | Is this application used by Internal & external users and please provide some usage analysis (Ex. 30% internal and 70% external) |  |

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| **HARDWARE IN TESTING ENVIRONMENT** | | | | | | | |
| Site URL to Test Environment: https:// | | | | | | | |
| Server Function\Tier | IP Address | Machine Name | VM or Physical | Shared Yes\No | Memory | # of Processors | Other |
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| **HARDWARE IN PRODUCTION ENVIRONMENT** | | | | | | | |
| Site URL to Production: https:// | | | | | | | |
| Server Function\Tier | IP Address | Machine Name | VM or Physical | Shared Yes\No | Memory | # of Processors | Other |
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| **TESTING INFORMATION** | | | | |
| Who is your contact person for QA (QA Manager)? | | | (name) | | |
| Will any developers, architects, Config Mgr, Server Admin, DBA, be supporting the Performance Testing Team | | | (name) | | |
| Expected Timeframe for Performance Testing | | | (date range) | | |
| Project My Time code for billing the activity | | |  | | |
| What is your primary testing goal(s)? | | | | | |
|  | Functional Benchmark Testing | | | | |
|  | Load\Concurrency Testing | | | | |
|  | Soak \Endurance Testing | | | | |
| Testing Data (Check all that are applicable below) | | |  | | |
|  | User Account | | | | |
|  | Transaction Data | | | | |
|  | Test Scenario’s or Test cases | | | | |
|  | Data Set-up (the requestor is responsible for seeing that the data required for testing is set up in the system) | | | | |
|  | Concurrent Users | | | | |
|  | Distinct Users (the requestor is responsible seeing that users are added to the system for load testing) | | | | |
|  | Other: | | | | |
| How much volume do you want to generate for load test (Check all that are applicable below) | | | | | |
|  | Current traffic levels | |  | | |
|  | 1.5 times current traffic | | | | |
|  | 2 times current traffic | | | | |
|  | Maximum site capacity | | | | |
| How many Test scenario’s or test cases do you want to run? | | | | | |
| Test Cases need to be provided in the format displayed in Appendix A | | | | | |
| # of Scripts (test cases) | | | | Distribution of Scripts:  Example, 75% users execute script 1, 15% script 2 and 10% script 3 | |
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| Key Metrics (provide details) | | | | | |
|  | Maximum concurrent users |  | | |
|  | CPU/Memory Utilization |  | | |
|  | Database Utilization |  | | |
|  | Expected Response Time |  | | |

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| **EXPECTED PASS CRITERIA** | | | | | |
| To determine maximum operating capacity | |  | Yes |  | No |
| CPU, Memory, etc. do not measure at above 90% (threshold limit) | |  | Yes |  | No |
| Any Additional Pass Criteria? |  | | | | |
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# IAP Team and Tools

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| Mercer Performance Team | Deepak VS (Delivery Manager) | Bangalore INDIA |
| Vinay CK (Performance Manager) | Bangalore INDIA |
|
| Jagan Bandi (Performance Lead) | Bangalore INDIA |
| Tool Set | Visual Studio 2015 | Visual Studio has Controller and Agents machine located in the Dallas Data Center |
| Visual Studio Online | Controller and Agent machines hosted in Microsoft Azure Cloud |
| Performance Centre 12.5 | Performance center has controller and agents machines located in Franklin data center |
| Server Monitoring Tools: |  |
| eHealth |
| App Dynamics |
| Splunk |
| vRops |

# Appendix a

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| **Test Step** | **User Event** |
| Log In to application | UE1a |
| Click on Home page | UE1b |
| Select check box and Submit | UE1c |
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