**Rahul Chavaan**

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## Professional Summary:

* Over 8 Years of Software Performance Engineering with Thorough knowledge of Application Architecture and Performance testing and Tuning methodologies.
* Hands-on experience in design, development, analyze and Implementation of Performance strategies. Experienced in **Performance Architecture, Performance Tuning, Server SideProfiling and Monitoring for Large Enterprise Applications.**
* Excellent in Problem/Root Cause Analysis, Key participant in Performance management for Complex Environments with **over 500** managed servers.
* **Performance Architecture and Server Side Tuning, Load testing and Designing, Developing and delivering performance testing solutions for Large Enterprise Applications**
* Expertise in Server side profiling with**JProfiler, Avicode, Wily Introscope, HP Diagnostics, SiteScope**
* Expertise in Client Side profiling with **Fiddler, Dynatrace.**
* Expertise in **Server side Monitoring& Alerts using Wily Introscope, HP Open View and BAC and Sitescope**
* **Experience in Benchmark Factory** Batch Performance cycles.
* **Experienced in tuning SIEBEL, SOA, LIFERAY and Oracle E-business Suite Architecture.**
* Experience in Performance Monitoring and Analysis using NMON, RSTATD, PERFMON.
* Expertise in Root Cause Analysis & Bottleneck Analysis/Problem Isolation after Performance Testing
* Planning, Scheduling, Designing and Implementing Multiple Enterprise Performance Testing projects.
* Garbage Collection, Heap Size, Memory Analysis, CPU, Unix, Windows Performance analysis.
* Expertise in Capacity Planning for a Large Enterprise Applications in building up Environment
* Expertise in Thread Dump analysis, Heap Dump Analysis, Dead Lock Analysis.
* Expertise in **Using LoadRunner for Creating Scripts, Running and Results Analysis** and Bottle Neck Identification.
* LoadRunner Protocols Used: **Web – HTTP/HTML, Web – Click & Script, Citrix, Database – Oracle, Web services, Silver Light, Ajax tru client.**
* Responsible to write or **Performance Test Strategy**, **Test Plans**, Test Cases, Test Matrix, Test Reports, Certification Report, Test results.
* **Performance Design, Scripting, Testing, Analysis using Neoload.**
* Experienced in Using Defect Tracking & Test Management Tools **HP Quality Center & Rational Clear Quest & Rational Test Manager.**
* Develop and present Performance Testing Approach and Methodology to various levels of client managers – from operation level working group to business decision makers.
* Develop estimates, financials and technical proposals for providing performance testing solutions to enterprise level clients.
* Experience in RDBMS like Oracle/SQL Server 2000/ MS Access/DB2, Backend Testing of Stored Procedures, Triggers using PL/SQL Scripting.
* Mentor and train internal resources to take up the roles of Performance Test consulting.
* Investigates and resolves technical issues in the QA and System Test Environments and communicates issues with various departments. Guide Project team on implementing Best Methodologies.
* Good Expertise in analyzing the results on Software Systems (**Windows, Unix**), Packages (**Java, .Net, SAP)**
* Proficiency in interacting with Oracle, **SQL Server**, DB2, databases using SQL.
* Expert in using **Test Director** and **Quality Center** for reporting and tracking software defects.
* Expert in writing **SQL Queries** in the scripts to query the database.
* Ability to work on multi platform environments like **Windows, UNIX** with clear understanding of file system, environment variables and file transfer protocol (FTP).
* Expert in using **Test Director** and **Quality Center** for reporting and tracking software defects.
* Extensive knowledge of different kinds of testing like Back-EndTesting, Positive/Negative Testing, Black box Testing, Configuration Testing, Data DrivenTesting, User Acceptance Testing(UAT), UnitTesting, Integration Testing, System Testing and Regression Testing.
* Experienced in GUI, Regression, and Functional Testing.
* Excellent Team Management and leadership skills

**Technical skills:**

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| Performance Testing Tools | HP Performance Center11.x, HP Load runner 9.5X/11.X, Rational Performance studio, SOAP UI (Web Services), Microsoft VSTS, NeoLoad, HP Application Lifecycle Management (ALM) |
| Protocols Used with LoadRunner | **Web – HTTP/HTML, Web – Click & Script, Citrix, Database – Oracle, Webservices, Silver Light, Ajax tru client** |
| Performance Monitoring Tools | **HP Open View, CA WILY Introscope 9.x, HP Sitescope, SPLUNK 5.x** |
| Performance Profiling Tools | **HP Diagnostics, CA WILY Introscope, Jprofiler, Microsoft AVICODE, FIDDLER, Dynatrace** |
| Performance Analysis | **AWR Analysis, NMON, VM Stat, IO Stat Analysis, Thread Dump analysis, Heap Dump Analysis, Dead Lock Analysis, Log Level Analysis, Deep Dive, Correlation Analysis** |
| Network Technologies | Load Balancers, Switches, Routers |
| Application Servers | Weblogic, WebSphere |
| Web Servers | Apache Tomcat, IIS,Oracle iPlanet Web Server, Oracle WebLogic Server |
| Programming Languages | C, C++, SQL, PL/SQL, Java, ASP, VB, HTML/DHTML, XML, Win Runner –TSL, QTP-DSL, |
| Databases | Oracle 9i,DB2, MS Access, MS-SQL |
| Operating Systems | Windows 95/98/2000/NT/XP/VISTA/WIN 7, UNIX (Sun Solaris, HP, IBM), MS-DOS. |
| Technologies | HTML, VB.Net, ASP, XML, Java Script. |
| Reporting Tools | Oracle Reports, VB Crystal Reports, People Soft SQR Reports, Power Builder Reports |
| Functional Testing Tools | Quick Test Professional ,Win Runner, Rational Robot  HP Application Lifecycle Management (ALM) |
| Testing Management Tools | Quality Center 10.x, Rational Test Manager 7.x, Rational Clear Quest 7.X |
| Network Communication | TCP/IP, TIBCO,ODBC, JDBC |
| Documentation Tools | MS Excel, MS Word, MS Power point, MS project |
| Version Controller | Visual Source Safe, CVS, SWIKI |
| Document Content Management tools | EMC Documentum, IBM Filnet, Sharepoint |
| Others | Benchmark Factory**,** TOAD, SQLYOG, NAVICAT, VISIO, MS Office |
| Test Management Tools | HP Application Lifecycle Management (ALM), Quality Center, Rational Test Manager |

**Client: Capital One, Mettawa, IL**

**Duration: Jan 13- Till Date**

**Role: Sr Performance Engineer**

**Roles and Responsibilities**

* Worked closely with the development teams in **Agile Model** with requirements changing on daily basis during execution.
* Responsible for implementing, leading and managing the performance testing environments, test data, test artifacts such as reusable scripts, test strategy. Identified scope of test impacts by test phases, including level of efforts, time line and resource allocation.
* **Garbage Collection, Heap Size, Memory Analysis, CPU, Unix, Windows Performance analysis using Perfmon and Sitescope Monitoring.**
* Weblogic Performance Analysis, **Deadlock and Thread Dump Analysis**. Key Participant in tuning and Performance Analysis of Application and Batch Cycles.
* All Server Logs Analysis on Exceptions, Error logs Analysis for Problem Identification.
* Drive Development Team towards Performance Fixes and Handle numerous Performance/Project Meetings.
* Responsible Performance Test Strategy Design and Performance Test Plan Preparation and Presentations.
* According to business specification Customization of scripts by using Load Runner.
* Monitored the performance of the Web and Database (SQL) servers during Stress test execution.
* Used Load Runner for checking the performance of Various Reports and Queries under load.
* Recorded Scripts using VuGen with web http/html and Web Services protocols.
* Extensively worked in UNIX environment for test executions.
* Checking the Application server logs on Mainframes and finding the various errors/exception thrown by the application server.
* Tested **J2EE** Application using **Silk Performer** and **Load Runner.**
* Installed and Setup **Performance Center** and Multi Load Runner Agents **Site Scope** Installation and Setup (classic) includes creating Groups and Monitors for **UNIX**, **Web Logic** and **Oracle** Database.
* Extensively used Web (HTTP/HTML), Web Services, J2EE protocols.
* Coordinated with Functional Teams to Identify the Business Processes to be Performance tested.
* Performed Load Testing with 5000/1000/15000/22000 **Vusers** with 300, 400,550,900 **TPS.**
* Extensively worked on **DB2** to change the database connections, tracing logs, monitor resources of the machines.
* Performed **RegressionTesting** and executed the **testcases** and analyzed the results.
* Extensively used **Quality Center** for storage and maintenance of requirements, test plans, test cases and defects and scheduling automation of test cases.
* Responsible for performing High Availability testing
* Responsible for Scheduling/Kicking off the Load tests through via HP Performance Center/Controller involving a variety of Load combination scenarios.
* Pinpointed the bottlenecks present in different layers of the Application and Identified Memory Leak in the App and made recommendations to overcome the same.
* Involved in the Management of the Win Runner scripts, Load Runner scripts and Requirements and the bug database using Mercury Quality Center 9.0/8.0.
* Recorded various test scripts and in both HTTP and URL mode scripting.
* Used **HP Diagnostics** to obtain Performance data for **problem solving**, **trend analysis**, and **capacity planning.**
* Executed performance test scenarios and analyzed results and reported findings to the project manager.
* Tuned the Application server **JVM** properties by exercising with different **JVM** property settings to analyze the best performance of the application. Configured **JVM** parameters, particularly those related to **memory usage** and **garbage collection.**
* **Server side Monitoring& Alerts using Wily Introscope, HP Open View and BAC and Sitescope**
* Performance Test Planning and Delivering the performance driven solutions.
* Setup Load Runner monitor resources to identify performance bottlenecks, analyze test results and report findings to the clients and provide recommendation for performance improvements as needed.
* Tuned systems for **optimal performance** and characterize systems on multiple platform and configuration combinations.

**Environment**: HP Load Runner - VUGen 11.0, PC11, Bench Mark Definition Language, MS Access, DB2, Silk Performer 7.5, HP Analyzer, IBM Lotus Notes, IBM MQ, Weblogic, HP SiteScope, Informatica, Java http Watch Windows NT, Windows 2003 and Windows XP, Splunk

**Client: Macys, Atlanta, GA**

**Duration: Jan 10- Dec 2012**

**Role:Sr Performance Engineer**

**Roles and Responsibilities**

* As a LoadRunner expert; met with project team to determine performance requirements, goals, and test strategies based on client specifications and architectures
* Interacted closely with business analysts and functional experts to clarify the functional questions and find functional gaps.
* Reviewed **Functional Design Documents** and developed detailed Test Plan and Test Cases for different modules and documented in HP **Quality Center.**
* Analyzed user requirements and functional design specifications to create **Test Plan, Test Cases** and procedures for System Testing.
* Created **Requirement Traceability Matrix** by integrating requirements with the Test Plan and integrating defects with test case by customizing **Traceability Rules** and Convert Test option in **Quality Center.**
* Performed **Build verification**, **Black Box**, Functionality, **Integration**, **System**, **Regression** and **User Acceptance Testing** for the entire application of various builds in a team environment.
* Performed extensive **Regression Testing** of different enhanced modules.
* Tracked and reported bugs using **Quality Center** and attended Defect Status Review meetings.
* Prepared Weekly Status Report which includes Revision History, Test Case Status, Issues and defects.
* Interacted with business analysts to obtain specific system specifications requirements.
* Developed test scripts using **Automated Testing** tool **LoadRunner** for Load and Performance testing.
* Involved in creating **Vuser** to check the load on the application using **Load Runner**.
* Performed Load, Stress, and **Performance testing** using **LoadRunner.**
* Created **VuGen** scripts, used **manual** and **automatic correlation,** parameterization techniques in generating the test scripts for **LoadRunner.**
* Analyzed **Throughput Graph**, Hits per Second graph, **Transactions per second graph** and **Rendezvous graphs** using **LoadRunner Analysis tool**.
* Scheduled hundreds of virtual users in a stress test scenario to simulate the peak load to identify and isolate system performance **bottlenecks.**
* Configured Web, Application and Database server resources monitoring using LoadRunner **Controller.**
* Designed and performed large-scale load volume end-to-end testing using very large data files
* Used Web Performance Trainer for testing the Performance of the Web Server.
* Used Clear Quest for tracking the Bugs.
* Developed various load runner VUGen scripts namely terminal emulator, web and web services.
* Created and executed LoadRunner scenarios for load, endurance, stress and capacity testing of Amtrak.com web application.
* Analyzed load test results and identified performance issues. Created performance test strategy. Created and published load test summary report with risks and suggestions for improving performance of Amtrak’s web application and its web services.
* Performed mainframe data collection and monitored measurements in Z/TPF mainframe system such as, CPU utilization, ECBs and so on during performance tests and included them in performance analysis.
* Extensively used VBScript excel object to read test data and report test results.
* Used **Ramp-up and Ramp-down** features in the **LoadRunner Controller** to allow scaling of users up and down at the start and end of test.
* Analyzed the results of the **Load test** using the LoadRunner Analysis tool and identified the **bottlenecks** in the system by looking at the **online monitors** and the graphs.
* Used LoadRunner to check the source of Performance delay, Network or client delays, **CPU performance**, and Input/output delays.
* Enhanced the **VUser Scripts** by **Parameterization**, **Correlation, Error Handling** and usage of **Rendezvous Points** in **LoadRunner.**
* Interacted continuously with Developers, System Analyst, Test Lead and Project Manager.

**Environment**: Load Runner, Quality Center 8.0, QTP, HTML, Java, JavaScript, WebSphere, Shell Scripting, UNIX, PL/SQL, JBuilder, Netscape and IE,

**Client: WellPoint, Richmond, VA**

**Duration: May 2008- Dec 2009**

**Role: Performance Engineer**

**Roles and Responsibilities**

* Performed all phases of test development: requirement analysis, test planning, test strategy, test cases and scripts development, test execution, test reporting, test result analysis, defect retesting, regression testing, and test management. Created test plans, test strategy document, test cases and test scripts and developed and executed feature and regression tests to verify connectivity, mobility, performance measurement for various releases.
* Garbage Collection, Heap Size, Memory Analysis, CPU, Unix, Windows Performance analysis.
* All Server Logs – Exceptions, Error logs Analysis for **Problem Identification.**
* **IIS Log Level Analysis, App Log Analysis, Access log Analysis.**
* Performance Engineering which includes managing – **LoadRunner Scripts Creation, Scripts Maintenance Execution using HP Performance Center.**
* Test management using **HP Application Lifecycle Management** (**ALM**).
* Create Performance Defects. Drive Development Team towards Performance Fixes.
* Handle Several Performance/Project Meetings.
* Created several Performance Defects from Performance Engineering Activities
* Manage Onsite and Offshore Team.
* Responsible Performance Test Strategy Design and Performance Test Plan Preparation.
* HP Performance Center and Load Runner Certified.
* Experience in Benchmark Factory Batch Performance cycles and Database Testing.
* Used Benchmark Factoryin developing Capacity plans by doing DB Node Level capacity and DB Performance.
* Reverse Performance tuning from Database to Web tier.
* Used Sitescope extensively for Alert Management.
* **Performance Design, Scripting, Testing, Analysis using Microsoft VSTS for parallel Projects.**
* Highly experienced in Profiling tools Wily Introscope, JProfiler, Avicode, Fiddler, Dynatrace
* Highly used **Dynatrace& Wily Introscope**in Code profiling and Performance Analysis.
* **Key Participant in Environment Capacity Planning.**
* Performance Monitoring and Analysis using NMON, RSTATD, PERFMON.
* Determined the performance test approach (load test, volume test, stress test, endurance test) and interleaving this across the identified scenarios. Designed test scenarios, baseline tests and test scripts for load, stress and capacity testing. Developed scripts and executed the performance tests to properly and rigorously estimate the performance metrics of the system.
* Reported the current capacity of the system (capacity and scalability)—the maximum load that can be applied to the test environment before system wide failure. Provided scalability recommendation—hardware configuration required for production system, based on the resource utilization the components are bound by under extreme load, in the test environment.

**Environment:** HP Load Runner 8.1, HP Quality Center 10, HP Performance Center 9.5, HP Site Scope, HP Service Test, SAP BI, F&R, BW Portal, MM, SD, XML, SAP GUI, SOAP UI, Java J2EE, HP BAC, SOAP UI, SOA, Web Services, Web Services, Oracle 10G, SQL Server 2008, Unix, Windows XP/Vista.

**Client: Prudential Insurance, Newark, NJ**

**Duration: July 2006 – April 2008**

**Role: Performance Engineer**

**Roles and Responsibilities**

* Performance Test Plan & Design Preparation including systems analysis, risk analysis, writing and plotting test strategies.
* Understand real time goals and incorporate in Performance test using **LoadRunner**.
* Create & Manage Complex Performance Scripts using **LoadRunner**.
* Performs API/**Web Services Performance** Testing **SOAP UI.**
* Identify the Bottlenecks from **J2EE Diagnostic Probes & Oracle Probes.**
* Performance Monitoring and Profiling using **Wily Introscope**
* Responsible to Monitor Server Resources using **HP Open View Performance Manager & HP Diagnostics.**
* Using Load Runner’s Web (HTTP/HTML), SOA, Citrix ICA, Protocols.
* Tailored some of the existing scripts by inserting programming elements into the script to conditionally execute transactions.
* Creating intensive and advanced Load Runner scripts, using custom functions and programs to support performance-testing efforts.
* Created and coded a very flexible Load Runner scripts that allowed for fast configuration changes during testing.
* Responsible for Defect Analysis and Maintenance Task, creating test scripts using Load Runner and setting up the Load Runner Agents in the load testing set up.
* **Root Cause Analysis, Server Memory Analysis, Exception Analysis, Problem Isolation**
* **Analyzed** Load Runner **on-line graphs** and reports to identify network/client delays, CPU/memory usage, I/O delays, and database locking and other issues at server level
* Configured **Load Runner monitors** to monitor environment performance, monitor performance of individual JVM’s using LoadRunner WebSphere monitor.
* Actively involved and interacted with business analysts and developers to resolve technical issues through UAT to production
* Responsible for weekly status meetings projecting the progress and proposing future testing efforts to the QA Manager
* Performed Load Testing with 10k,20 k, 30 K Vusers with 1000, 1200,1300 TPS.
* Manage Entire Performance Lab. Manage All HP Support Contract renewals. Handle Purchases.
* Test management Using **Rational Test Manager, Rational Clear Quest**.
* Application Monitoring and alerting using Wily Introscope. Event ticket management
* Highly experienced in Profiling tools Wily Introscope, Fiddler, Dynatrace
* Experience in Performance Monitoring and Analysis using NMON, RSTATD, PERFMON.
* Highly Experienced in Client side Performance Analysis using **Fiddler, Dynatrace**
* Server side **monitoring** using **Wily Introscope.**
* Used Several Protocols in Loadrunner

**Environments:** LoadRunner, HP J2EE Diagnostic Probes/CA Wily Introscope, HP Open View, ORACLE Probes, Rational Clear Quest 7.0, Oracle, SQL Server Unix, Web logic &Websphere, Java Applications, .Net Applications, Load Balancers