**Sindhu**

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**Summary:**

* **7** years of experience in Software Quality Assurance and Performance Testing utilizing **HP LoadRunner**,**Quality Center**,**Quick Test Pro**,**HP Performance center**, **JMeter**,**WinRunner**.
* Strong experience in Software Development Life Cycle (**SDLC**)along with being experienced in methodologies like **Waterfall, Iterative and Agile**and testing methodologies from project definition to post-deployment documentation.
* Experienced in interacting with business, development and system administration teams.
* Expertise in **requirements gathering**, analysis, design, application testing & Quality Assurance of web based applications, client server and mainframe applications.
* Extensive experience in **Manual** and **Automated** testing of applications developed on Windows environment.
* In order to check the response time with single user on a system, used **HTTP Watch, Fiddler** testing tools
* Expertise in developing **Performance Test Plan, Test Cases, Test Scenarios,Test Scripts Use Case** and **Traceability Matrix**.
* Hands on experience in handling different protocols like web (**HTTP/HTML**), **AJAX True Client, Siebel,Web Services**,**Web Click & Script**,**SAP**,**Winsock**,**Citrix Protocols**.
* Skilled in debugging and adjusting scripts by running in **VuGen** with runtime settings logs set todisplay all messages.
* According to the **SLA (Service Level Agreement)**, created the scripts to meet load-testing requirements.
* Exposure to various LoadRunner functions used by virtual user generator for scripting.
* Experienced in enhancing the **VuGen scripts, Correlations techniques, Parameterization and Synchronizations** in **HP LoadRunnner VuGen**
* Experienced in handling maximum of 10,000 virtual users.
* Performed IP spoofing using LoadRunner for load balancing issues.
* Proficient in plotting and implementing scenarios and loading Load Runner scripts into a **HP Load RunnerController**.
* Extensively involved in **Performance testing**, **Functional testing**,**Load testing**,**Endurance testing**,**Stress testing**,**Integration testing**,**System testing**,**Regression testing** and **User Acceptance testing**in **HP LoadRunner Analysis.**
* Experienced in using Open Source tool Windows **Perfmon** Utility,the techniques to fix monitoring issues andmonitoring Vuser status using monitoring tools such as **Sitescope**,**Wily Introscope**,**Splunk**,**HP Open View**,**OEM**.
* Testing the application with stressandload of right transaction mix to emulate real time transaction load.
* Measured response times at sub transaction levels at **web**, **app servers** and **database server** levels by using optimal application expert, highly concentrated on transactions per sec during testing.
* Checked for **network bottlenecks** using network delay time and Vuser graphs.
* Analyzed the test results**TPS**, **Hits/second**, **Transaction response time**, **CPU utilization**using **HP LoadRunner Analysis tool**, various monitoring tools, prepared Test Reports and analyzed Oracle database connections, Sessions, Log files
* Working and Testing Service Oriented Architecture SOA using SOAP UI.
* Performed backend testing creating **SQL queries** in Oracle, **SQL Server**.
* Delivering the status reports like **testing status,defect - tracking status**, and **weekly status reports**to the test manager.
* Solid presentation skills including experience with Power Point,Word,Excel.
* Excellent verbal, written and analytical skills with ability to work in a team as well as individually infast paced, dynamic team environment.

**Technical Skills:**

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| **Operating Systems** | Windows XP, 2003, 2000, Vista, Windows NT and Linux. |
| **Programming Languages** | C, C++, Java, HTML, CSS, JavaScript, Dot Net, XML,Unix shell scripting. |
| **Testing Tools** | HPLoadRunner 9.5/11.0/11.5/12.02, HP Performance center 9.5/11.0/11.5/12/ALM, HP Quality Center 9.0/9.2, QTP, JMeter 2.7, SOAP UI. |
| **Monitoring Tools** | HP Sitescope,Wily Introscope**,** HP Diagnostics, PerfMon, Splunk. |
| **Web/Application** | IBM Web Sphere, Web Logic 7.x/8.x/10.x, Tomcat 5.0/5.5, Apache. |
| **Database** | Oracle 9i/10G, SQL Server, MS-ACCESS ,MySQL. |

**Education:**

**Bachelors** of **Technology** in Computer Science, JNTU, Hyderabad, India.

Professional Experience:

**Evicore,Franklin,TN Jan 2018- Present**

**Role:Performance Tester**

**Responsibilities:**

* Reviewed the **business requirements document** with the business and development

team to understand the architecture and functionality of the application.

* Gathering the non-functional requirements by involving in meetings with business

teams ,application teams and preparation of **Performance Test Plan**.

* Experience in writing test plans, defining **Test Scenarios** and **Test cases**, developing

and maintaining **Test Scripts** based on business and functional requirements.

* Executed manual testing using **fiddler**to check and understand the functionality.
* **LoadRunner** is used to generate Vuser script to simulate multiple client interactions and emulate the behavior of hundreds of real users between the browser and the web server.
* Developed Vuser Scripts in **Web(HTML/HTTP)**,**Citrix ICA**multipleprotocols using **HP LoadRunner Vugen**.
* Recorded Vuser Scripts as per the business transactions identified using **Virtual User Generator** (Vugen), inserted transaction points to calculate the transaction response times and employed rendezvous points to simulate real world scenario.
* Implemented **Correlation** on dynamic values within the script generated by Load Runner.Enhanced the LoadRunner scripts by **parameterization**, **check points** and by keeping **rendezvous points**.
* Changed the **runtime settings** and performed load rate calculation that includes settingup **think time**, **pacing**, selecting number of Vuser, number of iterations and number oftransactions.
* Developed comprehensive test conditions and system performance test scenarios for highly complex information systems and/or software programs.
* Running the **Load Test Scenarios** and monitoring the performance using **HP Load Runner Controller**.
* Conducting **Bottleneck testing, Load testing**, **Stress testing**&**Endurance testing** and executed **single user, medium & full load**to analyze systems response.
* Worked with Load Runner in analyzing application performance for varyingloads and stress conditions to simulate a process, which allowed using more than 9,000 virtual users.
* Created Load Runner Analysis reports and graphs using **HP Load Runner Analysis**.
* Analyzed various graphs including **Database Resource Graphs**, **Network Monitor**

**Graphs**, **User Graphs**, **Error Graphs**, **Transaction Graphs** and **Web Server Resource**

**Graphs.**

* Extensively used **Wily Introscope** to analyze the system resources bottlenecks like Memory Leaks, CPU utilization,Response time,TPS as well as problematic application and DB components.
* Found memory issues in applications by analyzing GC logs and also analyzed application

logs for evaluating application errors.

* Providing detailed reports on heap memory and non-heap memory usage and on GC counters
* Report and track issues/defects using **Quality Center**, provide management with various test metrics and generate Quality Center reports and graphs.
* Preparing the **Analysis Reports** and circulating them to the corresponding Service Managers and Development teams.
* Scheduled **Test results** review meetings with project teams to walk through Test reports and discuss about **Performance Bottlenecks** Identified.
* Preparing the Weekly Efforts sheet for the team and circulating them to the stakeholders.

**Environment:HP LoadRunner 12.53,Jmeter,Wily Intrascope,Application Servers, Web Servers, SQL Developer,C,C++,HP ALM(Quality Center) 11.00,Linux.**

**CITI,Group,Dallas,Texas Nov 2014 – Dec 2017**

**Role:Performance Tester**

**Responsibilities**

* Working with project teams, development teams and business analysts on a daily basis to understand business needs and relate them in terms of performance testing.
* Followed **Agile Methodologies** and used **HP LoadRunner**basic architecture to perform testing.
* Developing **test case scripts**, executing scripts, documenting results and summary report in detail.Thus executed formal **test plans** to ensure the delivery of quality software applications.
* Worked with manual and automation testers and conductedtesting using **HTTPWatch,Selenium**  tools.
* Enhanced the test scripts using **Web HTTP/HTML**,**True Client**protocol in Load runner.
* Worked on HTTP/HTML work flows, data conversion rules and change rules.
* Extensively used LoadRunner using **Virtual User Generator** to script and customize

**performance test** harness **Web Protocol**.

* Test scripts development in HP LoadRunner VuGen and modifying scripts with required **Correlations**,Parameterization, run logic, think time, iterations, pacing, logging options and preferences.
* Used various correlations (Manual and Automatic) to parameterize dynamically changing fields.Data preparation for **Parameterized** values in scripts for multiple scenarios.
* HP LoadRunner is used to execute **multi-user** performance tests, used online monitors, real-time output messages and of the features of the **Load Runner Controller**.
* Developed scenarios in Controller based on the User Load and Transaction Volume and thus average **CPU usage**, Response time, TPS are analyzed for each scenario.
* Used various techniques like **Ramp up**, **Ramp down**, Transaction Point in Load Runner with 5000 virtual users.
* Found performance degradation issues like **“Out of Memory”** problems and improved

**Thread pool utilization**, **Memory Leaks**.

* Protocol to protocol response times, web page break downs, components sizes were analyzed and reported.Used **Performance Center** to define performance requirement like **SLA** in test.
* Performed **Performance testing, Functional testing,Endurance testing, Load testing and stress testing** during the testing life cycle of the product release.
* Observed for failure/errors and monitored metrics (transaction response times,running virtual users, hits per second and windows resources graph) in tests.
* Identified **bottle necks**, performance issues using multiple user test results, online monitors, real-time output messages and **LoadRunner Analyzer**.
* Analyzed results to understand various performance counters like Java Heap memory

usage, CPU Utilization, Free Physical memory and etc by using metrics/report

* Monitored the servers using **SiteScope** and by running Unix commands in servers when

test is running.

* Used to identify the queries which is taking too long and optimize those queries to improve performance by performing backend testing on Oracle, executed various **DDL** and **DML** statement.
* Total test management for the project and tracking activities to completion and managing issues and risk that occur during the pre and post upgrade testing.
* Maintained defects in **Rally** and participated in defect triage meetings and decide on meetings.
* Accurately produce regular project status reports to senior management to ensure on-time project launch.
* Participate in weekly meetings with the management team and walkthroughs.
* Interface with developers, project managers, and management in the development,execution and reporting of test automation results and day-to- day activities and updates in daily standup meetings.

**Environment:HP LoadRunner 12.00,HP ALM - Performance Center 11.52, SQL Servers,Web Center, Remote Desktop, Web Log, Agile Methodologies,HP Sitescope, Rally.**

**Frontier Airlines, Denver, Colorado Oct 2013 –Oct 2014**

**Role: Performance Tester**

**Responsibilities:**

* Involved in gathering business requirements, studying the application and collecting

the information from developers, and business to proceed with **Test strategy** and **Test**

**plan creation.**

* Wrote **Performance Test Plan** and **Test Case** design document with the inputs from developers and functional testers**.**
* Performed manual**HTTPWatch**testing in order to understand the functionality and response time of the application for single user.
* Recorded Vuser test scripts in Virtual User generator using **web (HTTP/HTML)** protocol.
* **Correlated** the dynamic values present in vuser test scripts besides **dynamic parameterization** is done on the hard coded values in the script which helps in reducing the script size and avoid cache effect.
* In order to emulate the user, running the scripts by setting the **run logic**,**pacing**,**think time**,**log**,proxy settings,preference deals with check point,performance graph& advanced settings.
* To know the stability and performance characteristics over an extended period of time,**soak test**&**load test** are performed using certain 500 virtual users.
* Created the load test scenarios and run the scenarios in order to monitor the performance using **LoadRunner Controller.**
* **LoadRunner Analyzer** gathers the graphs generatedfrom scenario results which are important for analysis of the results are **Running Vusers, Hit per second, Throughput, Transaction Summary, Average Transaction Response Time, Error per second,** etc.
* Used **splunk**to analyze bottlenecks like memory leaks, CPU and network bottlenecks as well as problematic application and DB components.
* Monitors and captures system metrics to indicate trends in performance growth & recurring problems.Worked with **bug report generation** and **defect tracking**.
* Worked on performance testing report and made recommendation for system/application performance improvement.
* Reported the bugs, Email notifications to the developers using QC.

**Environment:HPLoadRunner 11.50,Splunk,C,Quality Center,Agile,HP LoadRunner, HP Performance Center, HP Quality Center, Apache, Web Sphere, Oracle, MS Office, Wily Introscope, Windows.**

**ICICI Bank, Hyd, India Oct 2012–Oct 2013**

**Role: Performance tester**

**Responsibilities:**

* Analyzed business requirements and identified the test scenarios based on requirements and involved in preparation of templates for **test cases**.
* Responsible for developing performance testing strategy, performance testing plan based on the business specifications requirements and user requirements.
* Worked on **web (HTTP/HTML)** protocol.Developed **VUserscripts** and enhanced the basic script by adding Custom code.
* Prepared data for **manual correlation** and **parameterization** of the values in the scripts for multiple scenarios by **querying theOracle data**.
* Introduced **rendezvous** points in the script for stressing the application for specific transactions.
* Executed in **Load**, **Stress** and **Endurance testing** to simulate a process, which allowed using 500**virtual users**.
* Responsible for developing **baseline scenarios** and load testing harnesses for load/performance testing of the application.
* Performed testing for No load, Medium Load and Full Load and analyzed the system response.
* Responsible for performance **monitoring** and analysis of **response time**,**memory leaks** using throughput graphs.
* Analyzed the LoadRunner reports to calculate response time and transactions per Second.
* Monitored system resources such as **CPU Usage % of Memory Occupied VM Stat I/O Stat**.
* Captured Java threads and Exceptions in the application logs for analysis.
* Collected and maintained PBDs metrics using **Wily Introscope.**
* Responsible for monitoring **CPU utilization, Thread count, Response time, session count, GC heap analysis.**
* Developed weekly reports of performance data and metrics.Created performance narrative documents.
* Participated in **defects meeting** to discuss the **bottlenecks** and long running queries.
* Involved in walkthroughs and meetings with Performance team to discuss related issues.

**Environment:HP LoadRunner 9.51, Performance Center, Quality Center, HTML, Web Logic, XML, SQL, Windows XP/Vista, Sun Solaris 10.x, CA Wily Introscope, AIX**.

**Inspira Technologies, Hyd, India June 2011 - Oct 2012**

**Role: Software Test Engineer**

**Responsibilities:**

* Involved in **gathering requirements** from business analysts, users and responsible in 0preparing test plans.
* Created **test cases** and **test scripts** for testing the application to meet the requirements.
* Developed scripts using **Web (HTTP/HTML), Web services.** Used **HTML** and **URL** based recording to capture the communication between the client and the server using **LoadRunner**
* Involved in generating scripts and handling **Correlation**, **Parameterization**, **Transaction points**, **Pacing**, **Debugging** and various other functions using HP LoadRunner **Vugen.**
* Created Load Runner **test scenarios** and scheduled the Virtual Users to generate realistic load on the server.Preparation of sufficient **test data** for all the performance tests.
* Design scenarios for **Smoke Test, Load Test, Stress Tests, and Endurance Tests** in Controller using 200 virtual users.
* Analyzing the test resultsand circulating initial report to the Stake holders.
* Preparation of detailed Performance Analysis Report with all observations and recommendations to the application and development teams.
* Executing the **Performance tests** and monitoring the results using **Sitescope** by involving Application team and DB teams for capturing the logs.
* Used **VisualVM** to Monitor the **JVM** metrics like Heap Memory, non-heap memory and GC logs, Thread behavior and **I/O** Stat using UNIX commands like top, **Vmstat**, **Nmon** and **Netstat** while system under test.
* Setting up environment for new joiners for all the required tools used in the project.
* Logging defects for the failed web service in **Quality Center,**performing Quality Center cleanup activities.
* Preparing the **Analysis Reports** and circulating them to the corresponding Service Managers and Development teams.
* Scheduled **Test results** review meetings with project teams to walk through Test reports and discuss about **Performance Bottlenecks Identified.**
* Preparing the Weekly Efforts sheet for the team and circulating them to the stake holders.

**Environment:HP LoadRunner 9.10, Sitescope,UNIX,HTML, MS Excel,C,IIS,Oracle 9i,Java,JVM,PL/SQL, Quality Center 8.2, Windows 2003/XP.**