Top 20 Performance Testing Interview Questions and Answers

Following are frequently asked Performance Software Testing Interview questions for freshers as well as experienced QA professionals.

1) What is performance testing?

Performance testing is done for quality assurance. It involves testing Software application to make sure that the software is working well under their expected workload.

2) Name different types of performance testing

- Load testing
- Stress testing
- Endurance testing
- Spike testing
- Volume testing
- Scalability testing

3) What are the common performance problem does user's face?

- Longer loading time
- Poor response time
- Poor Scalability
- Bottlenecking (coding errors or hardware issues)

4) What are the common performance bottlenecks?

Some common performance bottlenecks include

- CPU Utilization

- Memory Utilization
- Networking Utilization
- S limitation
- Disk Usage

5) What are the Important performance testing tool?

- HP Loader
- HTTP Load
- Proxy Sniffer
- Rational Performance Tester
- JMeter
- Borland Silk Performer

6) Why does JMeter become a natural choice of the tester when it comes to performance testing?

JMeter tool has benefits like

- It can be used for testing both static resources like HTML and JavaScript, as well as dynamic resources like Servlets, Ajax, JSP, etc.
- JMeter has a tendency to determine the maximum number of concurrent users that your website can handle
- It provides a variety of graphical analyses of performance reports

7) What all thing involves in Performance Testing Process?

Performance Testing lifecycle includes the following steps/phases

- **Right testing environment:** Figure out the physical test environment before carrying performance testing, like hardware, software and network configuration
- **Identify the performance acceptance criteria:** It contains constraints and goals for throughput, response times and resource allocation
- **Plan and design Performance tests:** Define how usage is likely to vary among end users and find key scenarios to test for all possible use cases
- **Test environment configuration:** Before the execution, prepare the testing environment and arranges tools, other resources, etc.
- **Test design implementation:** According to your test design, create a performance test
- **Run the tests:** Execute and monitor the tests
- **Analyze, tune and retest:** Analyze, consolidate and share test results. After that, fine tune and test again to see if there is any enhancement in performance. Stop the test, if CPU is causing bottlenecks.

8) Name important parameters considered for performance testing?

- Memory usage
- Processor usage
- Bandwidth
- Memory pages
- Network output queue length
- Response time
- CPU interruption per second
- Committed memory
- Thread counts
- Top waits, etc.

9) What are the important factors you must consider before selecting performance tools?

- Customer preference tool
- Availability of license within customer machine
- Availability of test environment
- Additional protocol support
- License cost
- Efficiency of tool
- User options for Manual Testing
- Vendor support

10) What is the difference between JMeter and SOAPUI?

JMeter	SoapUI
It is used for load and performance testing HTTP, JDBC, JMS, Web Service(SOAP), etc.	It is specific for web services and has a more user-friendly IDE
It supports distributed load testing	It does not support distributed load testing

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- For most IDE, it has plugin support

11) What is the difference between performance testing and Functional Testing?

Functional Testing	Performance Testing
• It helps to verify the accuracy of the software with definite inputs against expected output, and functional Testing is done. • This Testing can be done manually or automated • One user performs all the operations • Customer, Tester and Development involvement is required • Production sized test environment is not necessary, and H/W requirements are minimal	• To validate the behavior of the system at various load conditions performance testing is done. • It gives the best result if automated • Several users perform desired operations • Customer, Tester, Developer, DBA, and N/W management team • Requires close to a production test environment and several H/W facilities to populate the load

12) What are the benefits of LoadRunner on testing tools?

Benefits of LoadRunner testing tools is

- Versatility
- Test Cases Results
- Easy Integrations
- Robust reports
- Enterprise Package

13) What is Endurance Testing and Spike Testing?

- **Endurance Testing:** It is one type of performance testing where the Testing is conducted to evaluate the behavior of the system when a significant workload is given continuously
- **Spike Testing:** It is also a type of performance testing that is performed to analyze the functioning of the system when the load is increased substantially.

14) What are the common mistakes done in Performance Testing?

The common mistakes done in Performance Testing are

- Direct jump to multi-user tests
- Test results not validated
- Unknown workload details
- Too small run durations
- Lacking long duration sustainability test
- Confusion on a definition of concurrent users

- Data not populated sufficiently
- The significant difference between test and production environment
- Network bandwidth not simulated
- Underestimating software testing schedules
- Incorrect extrapolation of pilots
- Inappropriate base-lining of configurations

15) Explain the steps required in JMeter to create a performance test plan

To create a performance test plan in JMeter

- Add thread group
- Add JMeter elements
- Add Graph result
- Run test & get the result

16) How you can execute spike testing in JMeter?

In JMeter, spike testing can be done by using Synchronizing Timer. The threads are jammed by synchronizing the timer until a specific number of threads have been blocked and then release at once, creating a large instantaneous load.

17) What is the throughput in Performance Testing?

In performance testing, throughput is referred to the amount of data transported to the server in response to the client request at a given period of time. It is calculated in terms of requests per second, calls per day, reports per year, hits per second, etc. Performance of application depends on throughput value, higher the value of throughput -higher the performance of the application.

18) What are the phases for automated performance testing?

Phases for automated performance testing includes

- Design or Planning
- Build
- Execution
- Analyzing & Software Tuning

19) What is the difference between the benchmark testing and baseline testing?

- **Benchmark Testing:** It is the method of comparing the performance of your system performance tuning against an industry standard that is set by other organization
- **Baseline Testing:**It is the procedure of running a set of tests to capture performance information. When future change is made in the application, this information is used as a reference.

20) What is concurrent user hits in load testing?

In load testing, without any time difference when multiple users hit on the same event of an application under the load test is called a concurrent user hit.