Software Testing Tool Report

Apache JMeter

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1. Apache JMeter Software is developed by Apache Software Foundation which is an American non-profit corporation and also a decentralized open source community of developers. This is a free software to its users, and it can be acquired from the following link;

<http://jmeter.apache.org/download_jmeter.cgi>

1. JMeter can be used on dynamic and static resources for load testing and measuring performance of several different services with an emphasis on web applications. It supports the ability to load and performance test: HTTP, HTTPS, FTP, JDBC, LDAP, Message- oriented middleware via JMS, STMP, POP, IMAP, TCP, Native commands or shell scripts, and Java Objects. It can also be used to simulate a heavy load on server or a group of serves to test their strength or analyze overall performance under different load types.
2. JMeter Software has the capability to support languages such as Java, JavaScript, PHP, ASP.NET(C#, Visual Basic)
3. It is said that you cannot start performance testing early enough when it comes to developing web applications. With JMeter tests can be written and applied as soon as the application or java object is built. This allows for testing to begin in the development process and most extensively to be used during system testing and acceptance testing phases. The reports developed during performance testing can be used to demonstrate to clients that the web application can perform under specific levels of use.
4. In order to use the tool we need to follow the following procedures;

**Installing procedure**: In order to install this software we need to download the apache-jmeter-3.2.zip file from the provided link. After it is downloaded, we need to unzip the file. Open the folder apache-jmeter-3.2 > bin > run “jmeter.bat” file. Software will run and ready to use.

**Configuration procedure**: To configure the software, we need to run the JMeter and go to Edit > Add > Threads(Users) > Thread Group.

**Using procedure:** By executing the file jmeter.bat. The GUI allows for easy creation of a test plan. The first step to creating a test is to create a thread group. A thread group is the users that will tested. The thread group can be modified at any time to add more users or gradually ramp up the number of user being tested. The second step is to create test cases. Test cases can be created for many different scenarios including testing an HTTP request, creating a Junit request and many more. The final step to creating a test is creating listeners to generate reports on the results of the test. Once the test is created it is then run and the results viewed.

1. I was able to install JMeter and write my first test in 15 minutes. JMeter runs as a standalone application with no preparation required other than unzipping the file and running it. This ease of use and quick set up is a big positive aspect of the software. JMeter has a large range of test types and listeners which allows for comprehensive performance testing of most projects. JMeter has most of the same features and tools of similar software packages that must be purchased where JMeter is free open source software. The ability to write performance tests and be able to manage the user thread separately from the tests and the listeners gives a lot of flexibility. It is easy to improve tests and customize them for different uses as the project moves through the testing phases. I would recommend JMeter for any projects that performance tested is needed.