**QA Assignment**

**Performance Testing: Assignment**

1. What is Performance Testing?

Ans: Performance testing in general is testing practice to check response ability of system and to check stability of system under a particular workload. It also checks the system performance in terms of speed and reliability.

2.Types of Performance Testing?

Ans: 1.Load Testing(Simplest)

2.Stress Testing

3.Scalability Testing

4.Spike Testing

5.Soak Testing

6.ConfigurationTesting

7.Availibility and Resilience Testing

8.Volume Testing

9.Endurance Testing

3.What is Jmeter and Advantages of Jmeter over other performance testing tools.

Ans: Jmeter is a test tool from Apache which is used to test performances of different applications, software services and products.

Again it is basically a open source software which is written in java and used to test both web and FTP applications as long as the s ystem supports a JVM(Java Virtual Machine).

**Advantages Of Jmeter over other performance testing tools:**

1.Easy to use without deep knowledge of programming.

2.Easy to install on any OS.

3.Allows testing of both Web and FTP application. For ex.,API testing,Database Testing,MQ testing etc.

4.Many key features are there as compared to other tools .For Ex.Thread Group,which helps to see whether software performance is good.

4.What is Thread Group in Jmeter?

Ans: Thread Group is a key feature of Jmeter ,which helps to see whether software performance is good.

5.Write down and explain any 5 listeners present in Jmeter?

Ans: **Listeners present in the Jmeter:**

1.View Results Tree:

The view results tree listener displays samples that the Jmeter samplers generate, and the assertion results that are related to these samples. This listener displays the samples in the order they are generated by the Jmeter script, and provides parameters and data for each of them.

2.Spline Visualizer:

Spline visualizer displays the change in the response time over the course of the test, in the form of a graph. It can also display the responsiveness of the system if it is configured for all the script samples.

3.Response Time Graph:

It also plots the graph of the samples’ response time over the course of the test. And the response time graph is also able to plot either for all samples or for selected ones.

4.Simple Data Writer:

This is a type of listener that can write a results only to the filename that is provided.

5.Flexible File Writer:

The Flexible File Writer listener is more advanced than the Simple Data Writer. It allows us to configure which sample data to print out to the file, while configuring the file header and footer.

6.Why do we need to do performance testing? Ans: When we do performance testing it is more clear to stakeholder about systems’ scalability and it gets easy to provide information about their application regarding speed ,stability and it also uncovers that what we need to improve before product goes into market.

7. What are the responsibilities of a QA? QA responsibilities are: Planning ideas improve Quality of product Analyze the product to conform whether it is satisfying the user’s requirement Accessing the risk Creating the Test Plan Writing the test-cases Performing different testing types Maintaining the QA faceoff scenarios.

8. What are the different deliverables that are shared by QA? The deliverable that are shared by the QA are listed below: Test Strategy Test Planning Test Case and Data Acceptance Criteria Summery report QA signoff and etc.

9. Why should we write test cases? Ans: The main reason to write test cases is to check performance is same we are expecting and is it satisfies users requirements.

10. What is a QA signoff document and why is it important to share? Ans: The QA Signoff is the document that is made by QA after testing the software to acknowledge that the software is reviewed and tested, and whether the software is ready to develop or not. It also gives us the clear Information that so and so feature from system is checked and whether the feature has some bug or fatal error present in it.

11. What is a test plan? Ans: The test plan is used to express the test strategy, objectives, what to test,estimation, criteria for testing particular thing, & using this document. It is used to show that how the testing will be executed gor a separate software.

**12.TEST CASES**

EXAMPLE: **Students section in online examination system**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | Test Case ID | Scenario | Expected Result | Actual | Status |
| 1 | TC-101 | Verify the student can choose the exam name or code. | Yes, exam name and code should visible on the screen | Yes,student able to choose between option. | Pass |
| 2 | TC-102 | Options to fill the required details before starting exam | Yes, Required details like name,Roll no. Should visible | Yes,all details are visible | Pass |
| 3 | TC-103 | Options to begin the exam along with instructions. | Yes, user should able to see begin option with instructions. | Yes, begin option is visible. | Pass |
| 4 | TC-104 | User able to see timer once the exam starts. | Yes, timer should start as per test duration | Yes | Pass |
| 5 | TC-105 | User able to see **MCQ** type questions is presented on the screen. | Yes,4 options must visible on the screen as it is **MCQ** type question. | Yes, 4 options visible. | Pass |
| 6 | TC-106 | Verify that the user can choose radio buttons or checkbox as per type of questions. | Yes, user should select single (radio button)/ multiple  (chckbox)option. | Yes, it is visible | Pass |
| 7 | TC-107 | User able to see options to move to previous or next questions tab. | Yes, On questions window user should see options to move between **PREVIOUS** and **NEXT** questions tab. | Yes,it is visible | Pass |
| 8 | TC-108 | Once all the questions are answered user able to end the test. | Yes,once all the questions are answered user should end the test. | No,Questions are answered as per user requirements | Fail |
| 9 | TC-109 | Verify that if the time duration for test get reached the test it automatically ends. | Yes, test should end once time duration for test is finished. | Yes,it is | Pass |
| 10 | TC-110 | Test evaluation as per positive and negative marking system. | Yes,once test is submitted the test evaluation is performed considering positive and negative marking. | Yes,it is | Pass |