iSQI

CTFL-PT

ISTQB Certified Tester
Foundation Level
Performance Testing

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iSQI

Exam CTFL-PT

ISTQB Certified Tester Foundation Level - Performance Testing

Version: 6.1

[Total Questions: 39]

Question No : 1

Youhave been asked to test the performance of a software and system update to a North American mobile trivia quiz game application. The quiz app is available on major app stores serving English-speaking users. The number of concurrent users planned for is 5 million. Winning quiz participants are promised a share of an allocated cash prize Once participants start playing, their quiz sessions must not be lost especially if all previous questions were answered correctly. The application owner wants to ensure that99% of quiz sessions are maintained (up to 4 95 million sessions) until the last answer has been successfully recorded.

An essential operational profile you identified is the quiz participant. Your operational profile discovery efforts have yielded a number of profile attributes. A quiz participant will answer twelve questions if they manage to answer the first eleven correctly Every user is made aware of a new question nearly simultaneously. The quiz user has limited time to respond using a mobile application. They are unable to respond to subsequent questions after they incorrectly answer a question. However, the quiz participant continues to see new questions even though they may have responded incorrectly to a previous question If they manage to answerall twelve questions correctly, the quiz application notifies them that they have tentatively won (subject to formal verification) an equal share of a cash prize of an amount set for the particular quiz event In addition to this individualized interaction,a broadcast video stream is presented in the quiz app providing entertaining commentary quiz event coordination, event status and answer explanations.

The average quiz event duration when measured from when the first question is presented to the lastanswer is reviewed is fifteen minutes. Over the fifteen minutes, twelve questions are presented to quiz participants. After making the following assumptions:

1. Questions must be responded to within a four second window;

2. Question responses will be sent evenly across this window of time (resulting in an average responder time of two seconds);

3. The designed maximum number of concurrent users will attempt the first question;

4. There will be no functional issues when handling the load.

5. The averagetime from response reception to database commitment is 1000 milliseconds under maximum concurrent usage.

What is the approximate maximum average system throughput if that assumptions hold?

A. 1.667 million transactions/second
B. 1 million transactions/second
C. 1 million transactions/millisecond
D. 200.000 transactions/second

Answer: B

Question No : 2

Which section of a performance test script is typically responsible for ensuring the script will have the right values and communication settings during execution?

A. main section
B. clean-up section
C. initialization section
D. timer section

Answer: B

Question No : 3

You have been asked to test the performance of a software and system update to a North American mobile trivia quiz game application. The quiz app is available on major app stores serving English-speaking users. The number of concurrent users planned for is 5 million Winning quiz participants are promised a share of an allocated cash prize Once participants start playing, their quiz sessions must not be lost especiallyif all previous questions were answered correctly. The application owner wants to ensure that 99% of quiz sessions are maintained (up to 4.95 million sessions) until the last answer has been successfully recorded

In order to avoid cooperation among quiz participants, the answers to the multiple choice questions are listed randomly Confidence in the game's fairness requires that a registered user originate from only one quiz client device Every user must respond over the same short window of time in order toavoid external assistance and learning the official answer before responding. Only participants who respond correctly may answer the next question Any activity that appears to violate expected behavior of a rule-following participant will cause the clientsession to be rejected.

You are developing test script code that handles quiz question responses. To do this you need to ensure that the script emulates the production quiz app client's logic in terms of rule following and client-backendinterface specification.

Based on the question description provided, which is one test script behavior you would implement in order to ensure the test script successfully delivers the operational and load profile of a quiz participant?

A. Recognize whetherthe previous question response was correct

B. Set the device identifier as a constant to ensure all virtual user instances use the set value

C. Randomly select the maximum think time limit used to delay question responses.

D. Use the date-time clock in order to submit question responses on a synchronized schedule with each instance

Answer: B

Question No : 4

During design discussions the performance test team observed that database stored procedures for several popular use cases may be badly coded. Which of the following common performance failures would best confirm the team'sconfirm was justified?

A. Slow response under all load levels
B. Slow response fader moderate-to-heavy load levels
C. Degraded response over time
D. Inadequate or graceless error handling under heavy or over-limit load

Answer: B

Question No : 5

Which of the following performance tests commonly results In understanding an application's ability to support future Increases of users or larger amounts of data without exceeding the current performance requirement?

A. scalability test
B. load test
C. endurance test
D. concurrency test

Answer: C

Question No : 6

Which performance testing operational activity pattern assists In identifying system functionality that may require correction or optimization?

A. Batch requests are collections of activities a SUT performs from inititaion through termination of one or more processes commonly measured for their elapsed time.
B. Concurrencies are collections of activities a SUT performs from inititaion through termination of one or more processes commonly measured for their elapsed time
C. Stakeholder requests are collections of activities a SUT performs from inititaion through termination of one or more processes commonly measured for their elapsed time.
D. Transactions are collections of activities a SUT performs from inititaion through termination of one or more processes commonly measured for their elapsed time.

Answer: B

Question No : 7

How Is transaction elapsed time determined?

A. response time - think time
B. response time + think time
C. response time + think time + nest time
D. response time + think time - nest time

Answer: B

Question No : 8

What is normally performed within the principal performance testing activity called Test Analysis and Design?

i. Determine scope of performance testing

ii. Establish action plans should performance issues arise

iii. in Create the test environment

iv. Identify risks to the performance tests

v. Determine load levels, tiring parameters, and transactions to be tested

A. vtrue i, ii, m iv false
B. ii. v true i, iii, v false
C. i, iv true ii, iii, v false
D. ii, iii, v true i, iv false

Answer: A

Question No : 9

Which metrics collecting attributes are most commonly associated with the metrics collection methods listed?

1. Scans collections of and compiles metrics based on operating system and application messages

2. Supplements reporting capabilities of another metrics collection method

3. Most likely unavailable for ongoing metrics collection after performance testing efforts have ceased

4. Collected metrics data align with the greatest precision to test activities

A. Performance test tools
B Performance monitoring tools
C Log analysis tools
B. 1C,2A, 3B and 4B
C. 1C, 2B, 3A and 4A
D. 1B. 2A, 3A and 4B
E. 1A, 2B, 3B and 4A

Answer: D

Question No : 10

Which of the following protocols would allow a test script to interact with a database management system directly?

A. JDBC
B. SOAP
C. HTTPS
D. IMAP

Answer: B

Question No : 11

Which measurements are associated with the environments listed below?

1. Batch completion time

2. Transaction throughput

3. Data restoration duration

4.. Normal use case flow duration

A. Technical Environment
B. Business Environment
C Operational Environment
C. 1B. 2B. 3C and 4B
D. 1B,2A,3B and 4A
E. 1A, 2A, 3B and 4A
F. 1A, 2B, 3C and 4B

Answer: B

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Question No : 12

You have been asked to test the performance of a software and system update to a North American mobile trivia quiz game application. The quiz app is available on major appstores serving English-speaking users. The number of concurrent users planned for is 5 million Winning quiz participants are promised a share of an allocated cash prize Once participants start playing, their quiz sessions must not be lost especially if all previous questions were answered correctly. The application owner wants to ensure that 99% of quiz sessions are maintained (up to 4 95 million sessions) until the last answer has been successfully recorded

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The averagequiz event duration when measured from when the first question is presented

to the last answer is reviewed is fifteen minutes Over the fifteen minutes, twelve questions are presented to quiz participants.

Which of the following Is a proper load profile forthe quiz participants?

A. 240.000,000 question responses per hour
B. Steady ramp-up of quiz response transactions from one million until the design maximum is reached within the first three questions. The maximum is sustained until question twelve
C. Stepped ramp-up of quiz response transactions from one million increasing by a one million after each question until the design maximum is reached. The minimum is sustained until question twelve.
D. Maximum number of planned concurrent quiz responses will occur at the first question with a stepped ramp-down after each question. The size of each step and the final number of nearly simultaneous quiz responses are random values within historical ranges observed over the last three

Answer: C

Question No : 13

You have been asked to test the performance of a software and system update to a North American mobile triviaquiz game application. The quiz app is available on major app stores serving English-speaking users. The number of concurrent users planned for is 5 million Winning quiz participants are promised a share of an allocated cash prize Once participants start playing, their quiz sessions must not be lost especially if all previous questions were answered correctly. The application owner wants to ensure that 99% of quiz sessions are maintained (up to 4.95 million sessions) until the last answer has been successfully recorded

During your conversations with stakeholders you determine that an essential transaction was the quiz participant's responses to questions As you prepare to speak to stakeholders regarding their test objectives for this transaction, you developa collection of prepared questions to ask them.

Which question is best aligned to the types of questions recommended for gathering test objectives information from stakeholders?

A. How long should it take before the user becomes aware that their last response was incorrect'
B. What are the targeted percentages of correct responses for each of the questions asked during a quiz event?
C. What are the target for CPU utilization and memory consumption for the web services platforms receiving question responses?

D. What is the projected participation growth rate over the next nine months?

Answer: C

Question No : 14

You have been asked to test the performance of asoftware and system update to a North American mobile trivia quiz game application. The quiz app is available on major app stores serving English-speaking users. The number of concurrent users planned for is 5 million Winning quiz participants are promiseda share of an allocated cash prize Once participants start playing, their quiz sessions must not be lost especially if all previous questions were answered correctly. The application owner wants to ensure that 99% of quiz sessions are maintained (up to 4.95 million sessions) until the last answer has been successfully recorded

Based on this scenario, when is It best time within this software and system update project to analyze and assess performance risks?

A. During the requirements phase
B. After designphase but prior to implementation phase
C. Revisited over the course of the development Lifecycles
D. During user acceptance testing and subsequent regression testing
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Answer: D

Question No : 15

How does service virtualization contribute to the performance test environment?

A. Service virtualization allows the load generators to produce more load per virtual instance.
B. Service virtualization enables the system under test to avoid functional error conditions caused by a necessary service being unavailable at the time of the performance test.
C. Service virtualizationenables load balancers to operate in a distributed environment thereby creating a realistic emulation of a production environment when available system under test equipment is inferior to production.
D. Service virtualization allows the database to performas if it were loaded with a data set many times larger than is actually loaded

Answer: B