

Solutions

2.1 A A recommendation should connect a requirement to a mechanism and an observable test. For example, a concurrency problem requires a strategy that prevents conflicting updates, plus tests demonstrating the invariant. A claim about faster response requires comparable workload measurements rather than only a complexity label. Evaluate alternatives under the same stated conditions.

2.2 $\text{throughput} = \text{successful requests} / \text{time} = 210 / 30 = 7 \text{ requests/s}$.

2.3 False. Throughput is not response time. A strong recommendation states the conditions in which it is expected to work and the evidence that could disconfirm it. Current official CS case-study requirements must be checked against the applicable assessment version.

2.4 throughput. throughput means Completed work per unit time under a stated workload.

3.1 Throughputs are 8/s and 9/s; failure fractions 20% and 10%. Compare latency distributions, workload, cost, reliability and user criteria; one workload does not prove all performance.