Testing Software Quality Characteristics – Part 1

Stress Testing



Objective



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Utilize strategies for stress testing

Stress Testing

Verify the behavior of the system meets its requirements when its resources are saturated and pushed beyond their limits. Attempt to find the stress points and ensure the system performs as specified

Analogies

Human stress test

Automobile stress test

Bridge stress test

Stress Testing Steps

1. Identify stress points

- Work with developers and architects
- Identify potential bottlenecks

2. Develop a strategy to stress the system at points identified in Step 1

Often requires load generation tools

3. Verify that intended stress is actually generated

- Stress testing strategy may be ineffective
- System performance may be better than expected

4. Observe behavior

- Verify stress related requirements are met
- Ensure functional correctness

Summary