Performance Test Focus: Checkout Flow

For performance testing of **https://demowebshop.tricentis.com**, I would focus on the **Checkout flow (Add to Cart -> Cart -> Checkout -> Place Order)**. I chose this area because it is the most business-critical user journey and directly impacts order completion and revenue. The checkout flow also involves multiple backend interactions such as cart updates, session management, order processing, and database writes, making it highly sensitive to performance issues under load.

Performance Testing Approach

I would design the performance test to simulate **realistic user behavior** while completing the checkout process under concurrent load.

First, I would model the workload by simulating multiple users performing the complete checkout journey. I would include realistic think time (2–6 seconds) between each step and rotate users and products to avoid unrealistic caching effects.

Next, I would execute the test by gradually ramping up virtual users from a low baseline to the expected peak load. This would help validate the flow first and then observe how the system behaves under increasing load. I would maintain a steady load to evaluate system stability and identify any performance degradation.

I would cover load testing to validate expected traffic, stress testing to identify system limits, and endurance testing to ensure the checkout flow remains stable during sustained usage.

Test Scenario: End-to-End Checkout Flow

1. I would open a product details page.
2. I would add the product to the cart.
3. I would navigate to the cart page.
4. I would update the product quantity.
5. I would proceed to checkout.
6. I would log in using an existing user account.
7. I would confirm billing and shipping details.
8. I would select shipping and payment methods.
9. I would place the order.
10. I would verify that the order confirmation page loads successfully.

Performance Parameters and Metrics

I would measure response times for each checkout step, throughput (orders per minute), error rates, and timeouts.

Example SLA targets would be:

- Add to Cart: P95 ≤ 2.5 seconds
- Cart Page Load: P95 ≤ 2.5 seconds
- Checkout Steps: P95 ≤ 3 seconds
- Place Order: P95 ≤ 5 seconds
- Error Rate: less than 1%

Success Criteria

I would consider the checkout flow successful if it consistently meets response-time SLAs, maintains a low error rate, completes orders reliably under expected load, and remains stable throughout the test duration.