🔹 Health API QA Testing Cheat Sheet

1️⃣ API Testing Basics

• /ping endpoint: Verifies server health/status; lightweight and always available.
• HTTP Method: GET; no body required.
• Status Codes: Expect 200 OK or your API-specific code (here: 201).
• Positive vs Negative Tests: Positive = endpoint responds correctly; Negative = simulate downtime or wrong URL.

2️⃣ Accessibility & Security

• Public Endpoint: Should not require authentication.
• Token Handling: Not applicable for health check, but verify no auth required.
• Security Risk: Ensure endpoint does not expose sensitive info or internal stack traces.

3️⃣ Response Validation

• Response Body: Could be JSON `{ status: 'OK' }` or simple text/html.
• Headers: Check `Content-Type` is correct (`application/json` or `text/html`).
• Consistency: Multiple calls should return the same status and similar response content.

4️⃣ Performance & Non-functional

• Response Time: Should respond quickly, e.g., < 1000ms.
• Load Testing: Ensure endpoint handles repeated pings without failure.
• Endpoint should not slow down or fail under frequent requests.

5️⃣ Error Handling & Edge Cases

• Wrong URL: Returns 404.
• Server Down: Simulate server error → ensure it fails gracefully (500).
• Unexpected Content: If JSON parsing fails, handle HTML/text fallback safely.

6️⃣ Testing Tools & Automation

• Playwright: Automation for API testing; supports requests, assertions, and timing.
• Key Functions: `test()` = define test case; `expect()` = assert results; `request.get()` = send GET requests.
• Test Repetition: Run multiple GETs to ensure consistent status and body.
• CI/CD Integration: Include in automated pipelines to ensure service health before deployments.

7️⃣ Advanced QA Considerations

• Consistency: Validate endpoint always returns same status and format.
• Performance Under Load: Simulate multiple concurrent requests for reliability.
• Fast Detection: Quick response ensures monitoring systems can detect downtime early.
• Reporting: Capture response status, time, body content, headers, and inconsistencies.

💡 **Tip:** For Health API testing, focus on **status verification, response consistency, performance, headers, accessibility, and repeatability**. This endpoint acts as a first-level system monitor.