

# LOAD TEST OF SEARCH MODULE FUNCTIONALITY

## USER STORY:

**Title:** Performance Testing of Search Module

**Description:** Users search for products using the search bar on the homepage of "https://www.n11.com/". The system should quickly display the results and maintain performance under high traffic.

## ACCEPTANCE CRITERIAS:

**AC01:** When text is entered into the search bar, results must be displayed promptly (maximum response time: 2 seconds).

**AC02:** The system should remain stable under a load of 1000 search requests (no unexpected CPU/RAM spikes).

**AC03:** Response code should be 200.

**AC04:** 95% of responses must complete in under 2 seconds.

## PRE-CONDITION FOR TEST CASES:

The "https://www.n11.com/" homepage is accessible.

## TEST CASES

**TC01:** Verify that the not logged in user search with valid product name returns 200 status code.

- 1- Pre-condition.
- 2- Send GET request to "/arama" endpoint with "keyword=laptop" query param.
- 3- Check Result Tree and Verify that the response status code is 200, response time does not exceed 2 seconds.

**TC02:** Verify that the not logged in user search with invalid chars returns "No resource with given identifier found" message.

- 1- Pre-condition.
- 2- Send GET request to "/arama" endpoint with "keyword=!!-/++" query param.
- 3- Check Result Tree and Verify that the response status code is 200, and response time does not exceed 2 seconds.
- 4- Verify response body contains "No resource with given identifier found" message.

**TC03:** Verify that the not logged in user search with empty input returns warning message.

- 1- Pre-condition.
- 2- Send GET request to "/arama" endpoint with "keyword=laptop" query param.
- 3- Check Result Tree and Verify that the response status code is 200, and response time does not exceed 2 seconds.

**TC04:** Verify that the not logged in user search with valid multiple words returns 200 status code.

- 1- Pre-condition.
- 2- Send GET request to "/arama" endpoint with "keyword=dizüstü bilgisayar" query param.
- 3- Check Result Tree and Verify that the response status code is 200, and response time does not exceed 2 seconds.

## **IMPLEMENTATION WITH JMETER**

### 1. Thread Group

- Number of Threads (Users): 1
- Ramp-Up Period (in seconds): 1
- Loop Count: 1

### 2. HTTP Request

- Protocol: https
- Server Name or IP: www.n11.com
- Method: GET
- Path: /arama
- Query Parameters:
  - Key: q, Value: "testData"

### 3. Response Assertions

- Apply to: Main Sample and Sub-Samples
- Pattern to Test: "200 OK" (Validating response code)

### 4. Listener

- View Results Tree
- Summary Report
- Response Times Over Time

## TEST PLAN DETAILS

### 1. Thread Group: N11 Search Module

- Number of Threads (Users): 1 (Start with a single user).
- Ramp-Up Period: 1 (The user is introduced within one second).
- Loop Count: 1 (The test runs once).

### 2. HTTP Request Sampler

- Protocol: https
- Server Name or IP: www.n11.com
- Method: GET
- Path: "/arama"
- QueryParam key=value--> q=testData

### 3. Response Assertion

- Verify that the response is successful by checking the status code and specific keywords.

### 4. Listeners

- Summary Report: Displays a summary of test results.
- View Results Tree: Allows detailed inspection of the responses.

### 5. Constant Timer

- Thread Delay (in milliseconds): 2000