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| System name: e-commerce system | Version: 1.0 |
| Test Strategy | Date: 3/11/2019 |
| Target audience | Andrii Sezko, Maxim Kirichinskiy |
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1. **System Description**

1.1 Description of the system under test

This project is a set of simple services, which partially represent common logic elements of e-commerce systems. It contains 3 services:

* [Authentication service - for getting token. Request to all other services without token would fail.](https://github.com/andrewsezko/ab-soft-performance-101/tree/master/perf_mock#authentication-service)
* [Product service - for choosing product.](https://github.com/andrewsezko/ab-soft-performance-101/tree/master/perf_mock#product-service)
* Cart service - for putting products into the cart.

**2. Performance Test Objectives**

1.1 Intended audience

product owner;

customer group;

administrative group;

management group.

1.2 Еxpectations

Achievement of expected performance indicators, such as response time, transaction frequency during normal business hours and during peak times in accordance with the target group.

**3. Expected Outputs**

Defect log

Test log file containing various test runs

Results Analysis Report

**4. KPIs**

Active users - monthly and daily

Revenue per user

Equipment costs

Downtime

Availability

Percentage of service requests resolved within an agreed-upon/acceptable period of time

Percentage of outage (unavailability) due to implementation of planned changes, relative to the service hours

Average time between the occurrence of an incident and its resolution

Response time during the routine business hours

Response time during the peak hour

Numbers of registered users

Numbers of users on page

Number of products

Average time on page

Scalability due to increased customer base or number of products

Resource utilization CPU, Memory, Disk

Resource utilization of Network.

**5. Approach**

**5.1 Testing Levels**

* System testing;

**5.2 Testing Methods**

- non-functional

**5.3 Testing Types**

* Load Testing
* Stress Testing
* Stabilyty Testing
* Failover and Recovery Testing

**5.4 Criteria**

5.4.1 Success criteria of the project

100% KPIs are defined and approved by all interested parties.

5.4.2 Project acceptance criteria

The product must be acceptable if all performance requirements are defined, covered by tests and all tests are passed. There are no high or urgent defects. Medium and low defects have been reviewed with the product owner and have been agreed.

**6. Test Environment**

Test environment for non-functional test team

**7. Test Risks**

* Unavailability of the proper testing tools during the test;
* Unavailability of the skill set required for testing and analyzing results;
* Cost involved in setting up of the testing environment;
* Untimely submission of the final product for PT;
* Unavailability of database network administrators during the proper test;
* Functional bugs during performance testing;
* Time deadlines.