test-hw2-Test_Strategy_Botnovskaya

№	Item	Highlights	Descriptions	Questions/Actions
1	Document Profile	• Document name, ID# and version number	Doc name - hw2, ID# - 1_v1	
		• Date of test strategy version	03/14/2019	
		• Target audience for the document	Performance101 lectors	
		• System Name, ID# Author(s) of the document and how to contact them	anelika.bortnovskaya@ab-soft.net, x_anelika_x	
2	System Description	• 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 Dockerized python apps: - Authentication service - Product service -Cart service To access any service uses token. System haven't had UI	Lack of system requirements. Is the system sold as separate ready-made units for building e-commerce products? Does services have a user interface?
3	Performance Test Objectives	• Classify intended audience (clients, users, marketers, other interested parties in the test results)	- customers - users - sales people/marketing	Do we have sales/marketing peope as a users?
		• Define and classify expectations according to audience	business volume, future growth, reliable services, working 24/7, security acces on sensetive data, increased sales, high level users satisfaction,	
		• Highlight success criteria of the project	Goals ara achieved. Owners/customers are satisfied	
4	Setup KPI fo future SLA creation	• Response Time	Average Response Times (ART) - By measuring the duration of every request/response cycle may found out how long it takes the target web application to generate a response. ART takes into consideration every round trip request/response cycle during a Monitoring period and calculates the mathematical mean of all the response times (ms) ART = 80ms	Clarification of the values of KPI after collecting/analysys of prod user data
		• Throughput	Requests per Second (RPS) - RPS is the evaluation of how many requests per second are being sent to a target server.Indicates load of web application currently works under. RPS calculated as a count of the requests received during a measurement period, where the period is represented in seconds. RPS = 20 req/s	
		• Resource utilization	CPU utilization - is the amount of CPU time used by the Web Application while processing a request. It is the percentage of CPU usage that is calculated, which indicates how much of the processor's capacity is currently in use by your application. CPU utilization = 50%	
		• Reliability measurements	Uptime - is the amount of time that a server has stayed up and running properly. It reflects the reliability and availability of the server and this value should be as large as possible. The value can be calculated as an absolute value or as a percentage of actual server uptime to ideal server uptime. Uptime = 99%	
5	Define thresholds of the system	Thresholds set the minimum and maximum allowable values for each KPI individually	ART - value more than 200ms should lead to attention and more than 300s – to troubling. RPS - value more than 70 req/s should lead to attention and more than 100 req/s – to troubling. CPU utilization - value more than 70% should lead to attention and more than 85% – to troubling. Uptime -value less than 99% should lead to attention and less than 95% – to troubling	Correcting of the thresholds after clarifying KPI values
6	Check system in order to expand new market	- Analyze customer data	To found out what is the most important to customers can be provided online survey, collect analysys data, tracking e t.c.	
		- Marketing research	Identify competitors, identify the advantages and disadvantages of our system compared to competitors.	
		- Test the system for extensibility	Identify bottlenecks of system (load, strees testing).	
		- Results	Set up proposals (possible several options with compromises) how to improve the system for entering a new market, with an indication of estimates and budgets.	
7	Collect user metrics from prod	Collecting metrics from prod logs, tracking, production visualization and metrics tools		Refine budget and toolset