



DevOps Lab

ELK INTRODUCTION

Home tasks

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TASK 1

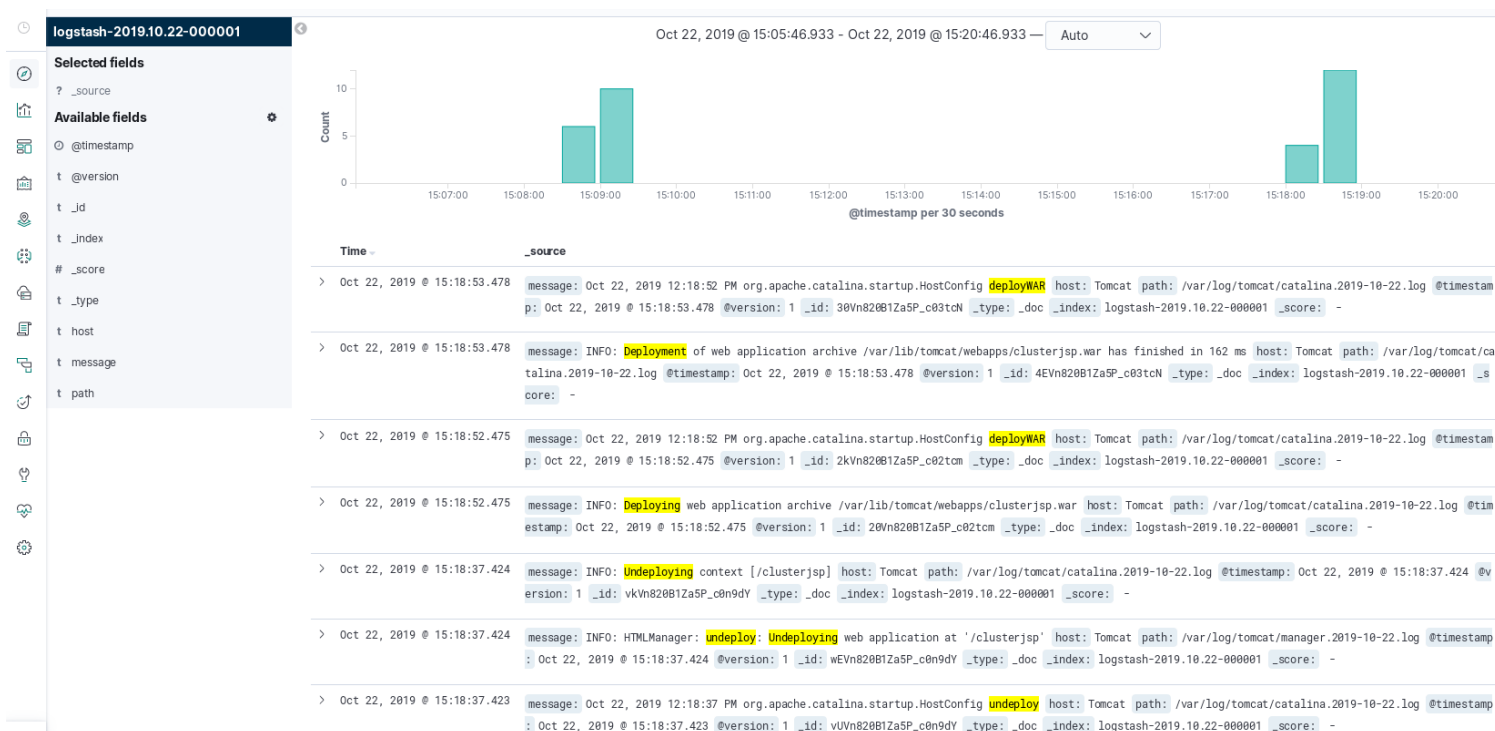
- Spin-up VM-1 using by Vagrant. It must match next conditions:
 - OS Centos should be installed (use sbeliakou/centos image)
 - Tomcat appserver should be installed
 - “Testapp” application should be deployed and running on the server
 - Logstash should be installed and configured for working with VM-2

TASK 2

- Spin-up second VM-2 using by Vagrant. It must match next conditions:
 - OS Centos should be installed (use sbeliakou/centos image)
 - Elasticsearch should be installed and configured
 - Kibana should be installed and configured

TASK 3

- Analyze application workflow using by Kibana, provide screenshots
- Preform several deploying-undeploying operations (Testapp), check changes, overview logstash logs using by Kibana UI; provide appropriate screenshots



| Time | _source |
|-------------------------------|---|
| > Oct 22, 2019 @ 15:18:53.478 | message: Oct 22, 2019 12:18:52 PM org.apache.catalina.startup.HostConfig deployWAR host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:53.478 @version: 1 _id: 30Vn820B1Za5P_c03tcN _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:53.478 | message: INFO: Deployment of web application archive /var/lib/tomcat/webapps/clusterjsp.war has finished in 162 ms host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:53.478 @version: 1 _id: 4EVn820B1Za5P_c03tcN _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:52.475 | message: Oct 22, 2019 12:18:52 PM org.apache.catalina.startup.HostConfig deployWAR host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:52.475 @version: 1 _id: 2kVn820B1Za5P_c02tcM _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:52.475 | message: INFO: Deploying web application archive /var/lib/tomcat/webapps/clusterjsp.war host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:52.475 @version: 1 _id: 20Vn820B1Za5P_c02tcM _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:37.424 | message: INFO: Undeploying context [/clusterjsp] host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:37.424 @version: 1 _id: vkVn820B1Za5P_c0n9dY _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:37.424 | message: INFO: HTMLManager: undeploy: Undeploying web application at '/clusterjsp' host: Tomcat path: /var/log/tomcat/manager.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:37.424 @version: 1 _id: wEVn820B1Za5P_c0n9dY _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:37.423 | message: Oct 22, 2019 12:18:37 PM org.apache.catalina.startup.HostConfig undeploy host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:37.423 @version: 1 _id: vUVn820B1Za5P_c0n9dY _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:32.416 | message: INFO: HTMLManager: undeploy: Undeploying web application at '/clusterjsp' host: Tomcat path: /var/log/tomcat/manager.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:32.416 @version: 1 _id: t0Vn820B1Za5P_c019fK _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:32.415 | message: Oct 22, 2019 12:18:32 PM org.apache.catalina.startup.HostConfig deployWAR host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:32.415 @version: 1 _id: tEVn820B1Za5P_c019fK _type: _doc _index: logstash-2019.10.22-000001 _score: - |
| > Oct 22, 2019 @ 15:18:32.415 | message: INFO: Deployment of web application archive /var/lib/tomcat/webapps/clusterjsp.war has finished in 206 ms host: Tomcat path: /var/log/tomcat/catalina.2019-10-22.log @timestamp: Oct 22, 2019 @ 15:18:32.415 @version: 1 _id: tuVn820B1Za5P_c019fK _type: _doc _index: logstash-2019.10.22-000001 _score: - |

HOMETASK REQUIREMENTS

1. Vagrantfile for provisioning required infrastructure
2. SH – scripts for installation/configuring of the necessary applications
3. Screenshots of the application's state (from Kibana)

HELPFUL MATERIALS

- “ELK introduction” presentation
- <https://www.elastic.co/guide/en/logstash/current/installing-logstash.html>
- <https://www.elastic.co/guide/en/elasticsearch/reference/current/rpm.html#install-rpm>
- <https://www.elastic.co/guide/en/kibana/7.2/rpm.html#rpm-repo>