EPAM Systems, RD Dep., RD Dep.

MTN.NIX.05.Zabbix.API

REVISION HISTORY					
Ver.	**Description of Change**	**Author**	**Date**	**Approved**	
				Name	**Effective Date**
1.0	Initial Version	Siarhei Beliakou	23/May/2017		

Task. Zabbix API

Task:

You should develop a script (on Python 2.x) which registers given host in Zabbix.

Testing Infrastructure:

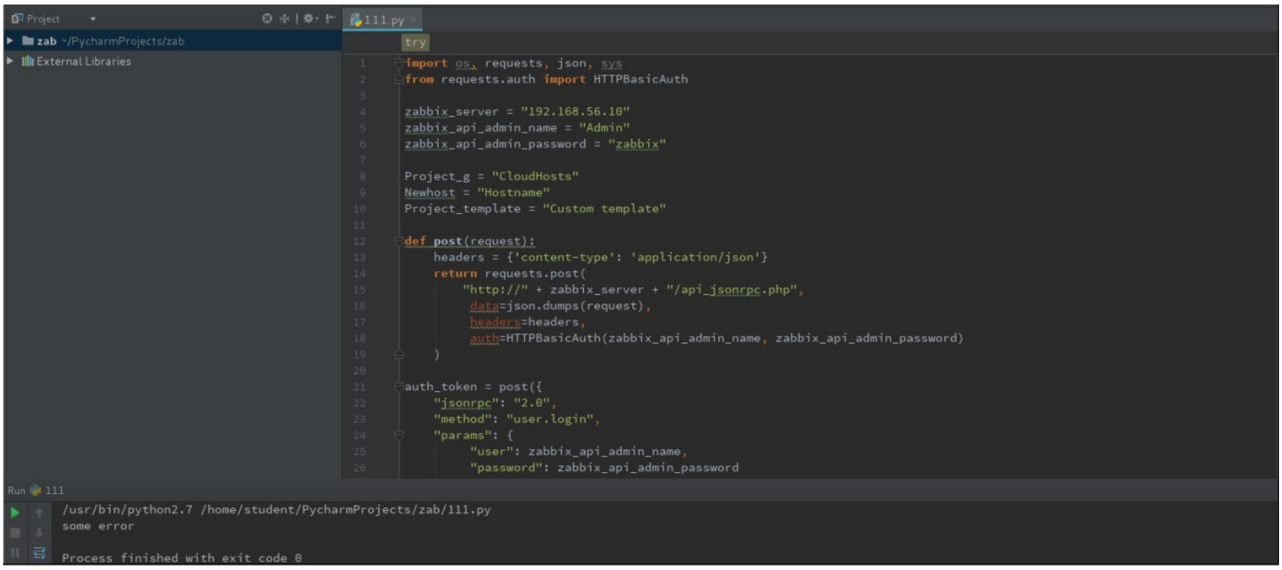
Vagrantfile to spin up 2 VMs (virtualbox):

- zabbix server, provisioned by Vagrant provisioner
- Linux VM with zabbix agent, script for registration on zabbix server, all provisioned by Vagrant provisioner

Registering Script requirements:

- Written on Python 2.x
- Starts at VM startup or on provision phase
- Host registered in Zabbix server should have Name = Hostname (not IP)
- Host registered in Zabbix server should belong to ”CloudHosts” group
- Host registered in Zabbix server should be linked with Custom template
- This script should create group “CloudHosts” id it doesn’t exist

For both VMs use vagrant box “sbeliakou/centos-7.3-x86_64-minimal”



```python
import os, requests, json, sys
from requests.auth import HTTPBasicAuth

zabbix_server = "192.168.56.10"
zabbix_api_admin_name = "Admin"
zabbix_api_admin_password = "zabbix"

Project_g = "CloudHosts"
Newhost = "Hostname"
Project_template = "Custom template"

def post(request):
    headers = {'content-type': 'application/json'}
    return requests.post(
        "http://" + zabbix_server + "/api_jsonrpc.php",
         data=json.dumps(request),
         headers=headers,
         auth=HTTPBasicAuth(zabbix_api_admin_name, zabbix_api_admin_password)
    )

auth_token = post({
    "jsonrpc": "2.0",
    "method": "user.login",
    "params": {
         "user": zabbix_api_admin_name,
         "password": zabbix_api_admin_password
```

```
/usr/bin/python2.7 /home/student/PycharmProjects/zab/111.py
some error

Process finished with exit code 0
```

```
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auth_token = post({
  "jsonrpc": "2.0",
  "method": "user.login",
  "params": {
     "user": zabbix_api_admin_name,
     "password": zabbix_api_admin_password
   },
  "auth": None,
  "id": 0}
).json()["result"]
try:
  get_cloud = post({
  "jsonrpc": "2.0",
  "method": "hostgroup.get",
  "params": {
    "output": "extend",
    "filter": {
      "host": ["CloudHosts"]
    }
  },
  "auth": auth_token,
  "id": 1}
  ).json()["result"][0]["name"]
  print "some error"
except IndexError:
  if True:
    host_group = post({
      "jsonrpc": "2.0",
      "method": "hostgroup.create",
      "params": {
        "name": Project_g
      },
      "auth": auth_token,
      "id": 1}
    ).json()["result"]["groupids"][0]
    print host_group
    template_id = post({
```
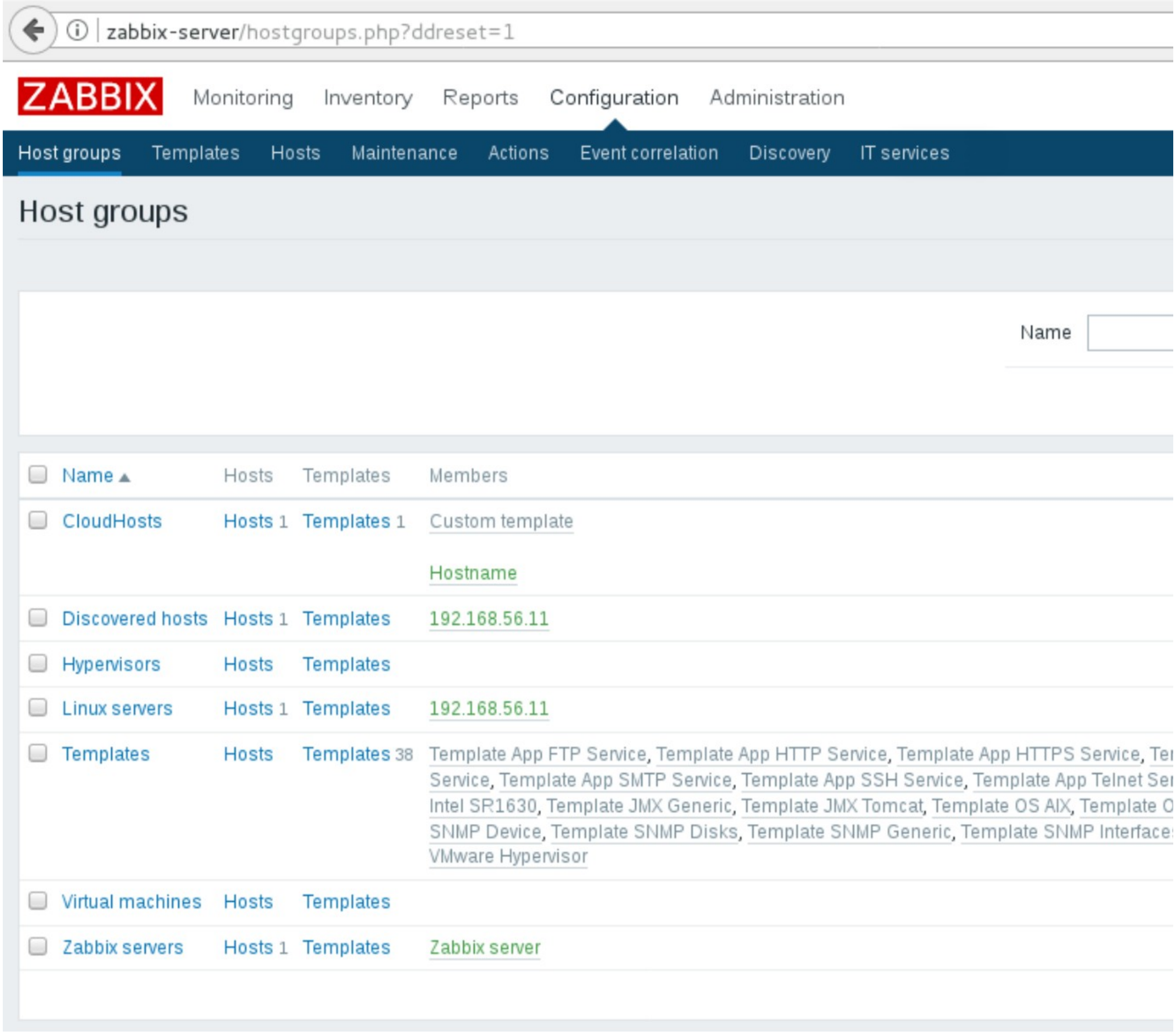

```
  "jsonrpc": "2.0",
  "method": "template.create",
  "params": {
    "host": Project_template,
    "groups": {
      "groupid": host_group
    },
  },
  "auth": auth_token,
  "id": 1}
).json()["result"]["templateids"][0]
print template_id
host_id = post({
  "jsonrpc": "2.0",
  "method": "host.create",
  "params": {
    "host": Newhost,
    "interfaces": [
      {
        "type": 1,
        "main": 1,
        "useip": 1,
        "ip": "192.168.56.55",
        "dns": "",
        "port": "10050"
      }
    ],
    "groups": [
      {
        "groupid": host_group
      }
    ],
    "templates": [
      {
        "templateid": template_id
      }
    ],
    "inventory_mode": 0,
    "inventory": {
      "macaddress_a": "01234",
      "macaddress_b": "56768"
    }
  },
  "auth": auth_token,
  "id": 1}
).json()["result"]["hostids"][0]
print host_id
```



Host groups

Name

□	Name ▲	Hosts	Templates	Members
□	CloudHosts	Hosts 1	Templates 1	Custom template Hostname
□	Discovered hosts	Hosts 1	Templates	192.168.56.11
□	Hypervisors	Hosts	Templates	
□	Linux servers	Hosts 1	Templates	192.168.56.11
□	Templates	Hosts	Templates 38	Template App FTP Service, Template App HTTP Service, Template App HTTPS Service, Ter Service, Template App SMTP Service, Template App SSH Service, Template App Telnet Ser Intel SR1630, Template JMX Generic, Template JMX Tomcat, Template OS AIX, Template O SNMP Device, Template SNMP Disks, Template SNMP Generic, Template SNMP Interface VMware Hypervisor
□	Virtual machines	Hosts	Templates	
□	Zabbix servers	Hosts 1	Templates	Zabbix server