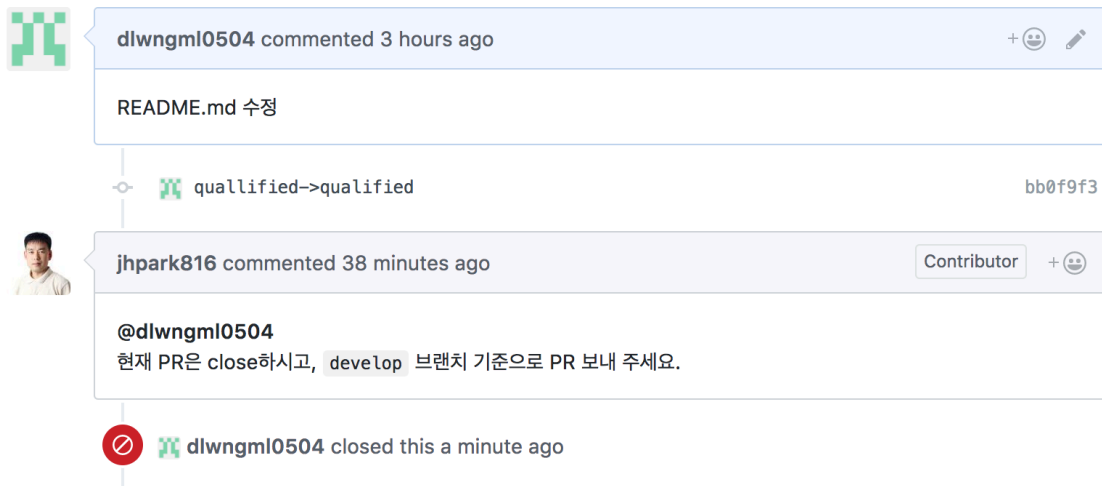


OSS 프로젝트 실습 보고서

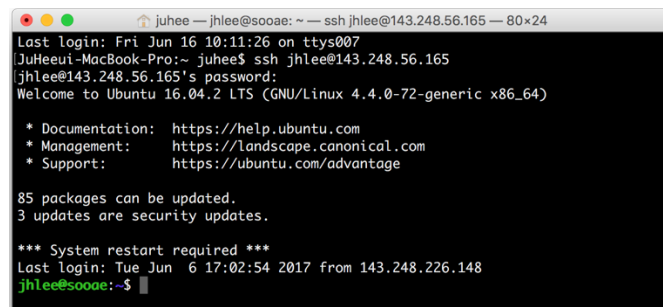
KAIST 20140449 이주희

0. Contribution

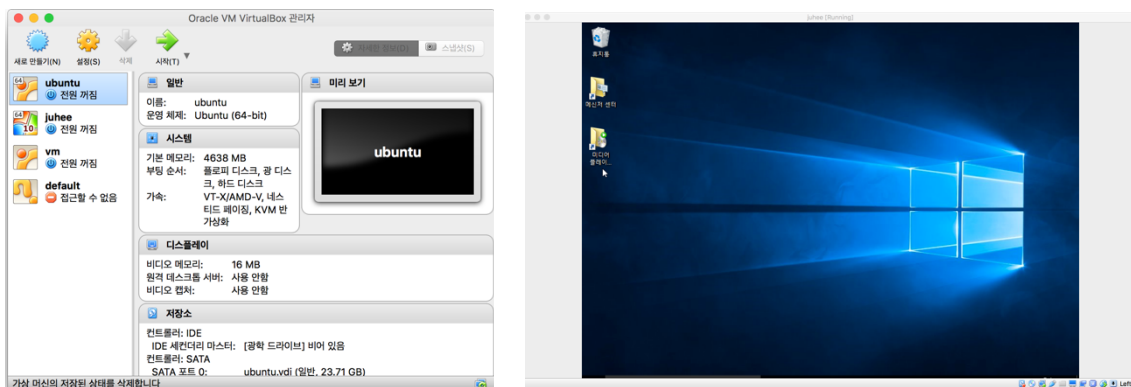
(다른 브랜치로 commit 해서, develop branch 로 PR 보낸 상태입니다.)

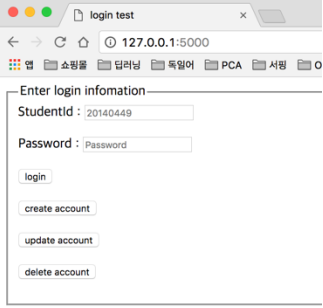
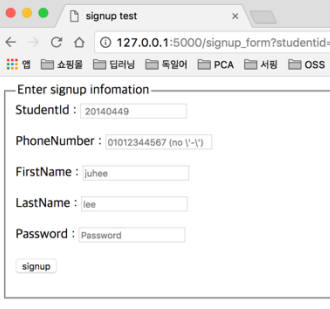
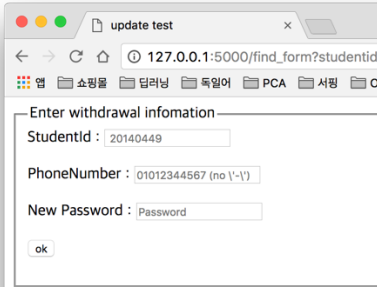
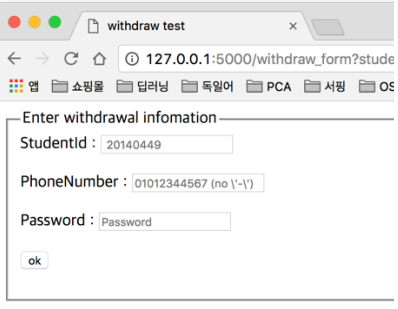


1. Linux 사용



2. VirtualBox 사용 + VMware Esxi 사용



	
Create	회원가입, signup
	
Delete	회원탈퇴, withdraw
	
Update	비밀번호 변경
	

(2) Arcus Single Mode & test.py run

```

root@eda426f837f0:/opt/arcus/scripts# ./arcus.sh memcached start root-cloud
Server Roles
{'zookeeper': ['172.17.0.3'], 'memcached': []}

[172.17.0.3] Executing task 'mc_start_server'
[172.17.0.3] run: /opt/arcus/bin/memcached -u memcached -E /opt/arcus/lib/default_engine.so -X /opt/arcus/lib/syslog_logger.so -X /opt/arcus/lib/ascii_scrub.s
o -d -v -r -R5 -U 0 -D: -b 8192 -m100 -p 11211 -c 1000 -t 6 -z 172.17.0.3:2181
[172.17.0.3] out: stdin: is not a tty
[172.17.0.3] out:
Done.
Disconnecting from 172.17.0.3... done.
root@eda426f837f0:/opt/arcus/scripts# ./arcus.sh memcached list root-cloud
Server Roles
{'zookeeper': ['172.17.0.3'], 'memcached': []}

-----
serviceCode status total online offline created modified
-----
root-cloud OK 1 1 0 2017-06-13 21:54:44.937534 2017-06-14 10:25:54.257983

Online
172.17.0.3:11211

Done.
root@eda426f837f0:/opt/arcus/scripts#

root@eda426f837f0:/home/crdu-arcus# python3 test.py 172.17.0.3:2181 root-cloud
### connect to client
True
test...
True
test...2
True
1
True
1.2
True
True
True
True
2017-06-14 17:01:02.009000
2017-06-14 17:01:02.009737
True
b'bytes array'
True
11
8

```

(3) Mysql 성능

	Query
Create	<pre><<QUERY>> INSERT INTO Members(StudentId, PhoneNumber, LastName, FirstName, Password) VALUES(20130123, 0101234567, 'GilDong', 'Hong', 'love_naver') Time take :0.002012 seconds</pre>
Retrieve	<pre><<QUERY>> SELECT * FROM Members WHERE StudentId=20130123 and PhoneNumber= 0101234567 Time take :0.000658 seconds</pre>
Delete	<pre><<QUERY>> DELETE FROM Members WHERE StudentId=20130123 and PhoneNumber= 0101234567 Time take :0.004664 seconds</pre>
Update	<pre><<QUERY>> UPDATE Members SET Password='loving_naver' WHERE Studentid=20140449 And PhoneNumber=1059188572 Time take :0.002409 seconds</pre>

5. NGrinder 스트레스툴 (v3.4 사용)

(1) Docker 를 사용하여 Controller(1 개) 및 Agent(5 개) 설치

```

juhee@juhee:~$ docker ps
CONTAINER ID   NAMES                                COMMAND
8d4349a47c65   ngrinder/controller:3.4             "/scripts/run.sh"
12009/tcp, 0.0.0.0:16001->16001/tcp affectionate_mclean
eda426f837f0   ruo91/arcus                         "/usr/bin/supervisord"
438d75c17604   ruo91/arcus:memcached              "/usr/bin/supervisord"
juhee@juhee:~$ docker inspect -f '{{.NetworkSettings.IPAddress}}' affectionate_mclean
Error: No such object: affectionate_mclean
juhee@juhee:~$ docker inspect -f '{{.NetworkSettings.IPAddress}}' affectionate_mclean
172.17.0.4
juhee@juhee:~$ docker run -v ~/ngrinder-agent:/opt/ngrinder-agent -d ngrinder-agent:3.4 172.17.0.4:80
0bdc7960198cb019e7225402ce92a14d75e68dd4079cd164ed887606f017c7b
juhee@juhee:~$ docker run -v ~/ngrinder-agent:/opt/ngrinder-agent -d ngrinder-agent:3.4 172.17.0.4:80
cc9961467738defa1c622807c3002b008f445549cfe2a053ab283ee11509
juhee@juhee:~$ docker run -v ~/ngrinder-agent:/opt/ngrinder-agent -d ngrinder-agent:3.4 172.17.0.4:80
cdab375ba2ed95427c08488a43f4e6631c0d000be7a4610cbef5049b6cfd5f17
juhee@juhee:~$ docker run -v ~/ngrinder-agent:/opt/ngrinder-agent -d ngrinder-agent:3.4 172.17.0.4:80
f8f15beb9340765a9d29a21bf2fc8d60b0e31864b32c5056099e21b090d8510
juhee@juhee:~$ docker run -v ~/ngrinder-agent:/opt/ngrinder-agent -d ngrinder-agent:3.4 172.17.0.4:80
dc44b26d95406c6170c84bc2b8e4d57bc302624e623bc02e8c0a7c3a5fc20623
juhee@juhee:~$ docker run -v ~/ngrinder-agent:/opt/ngrinder-agent -d ngrinder-agent:3.4 172.17.0.4:80
e5c826778c18fa1a12398d8d2df2835c675d4a749af99385f51dfa5f22352f
juhee@juhee:~$ docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS
dc44b26d9540   ngrinder-agent:3.4                 "/scripts/run.sh 1..." 37 hours ago   Up 3 minutes   0
8d4349a47c65   ngrinder/controller:3.4           "/scripts/run.sh"       44 hours ago   Up 4 minutes   0.0.0.0:80->80/tcp, 0.0.0.0:12000-12009->12000-
12009/tcp, 0.0.0.0:16001->16001/tcp
eda426f837f0   ruo91/arcus                       "/usr/bin/supervisord"   2 days ago     Up 10 hours   22/tcp, 0.0.0.0:5000->5000/tcp
438d75c17604   ruo91/arcus:memcached             "/usr/bin/supervisord"   2 days ago     Up 10 hours   22/tcp, 2181/tcp, 11211-11212/tcp
juhee@juhee:~$

```

Agent Management

Update
Clean Up
Stop
Download
</agent/download/ngrinder-agent-3.4.tar>

<input type="checkbox"/>	State	IP Domain	Port	Name	Version	Region	Approved
<input type="checkbox"/>		172.17.0.5	0	0bdc7960198c	3.4	NONE	Disapproved Approved
<input type="checkbox"/>		172.17.0.6	0	cc9961467738	3.4	NONE	Disapproved Approved
<input type="checkbox"/>		172.17.0.7	0	cdab375ba2ed	3.4	NONE	Disapproved Approved
<input type="checkbox"/>		172.17.0.8	0	f8f15beb9340	3.4	NONE	Disapproved Approved
<input type="checkbox"/>		172.17.0.9	0	dc44b26d9540	3.4	NONE	Disapproved Approved

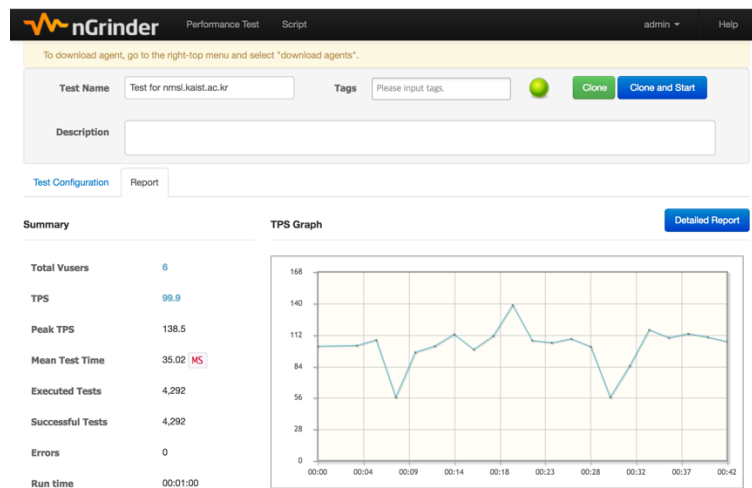
← Prev
1
Next →

(2) NGrinder 사용

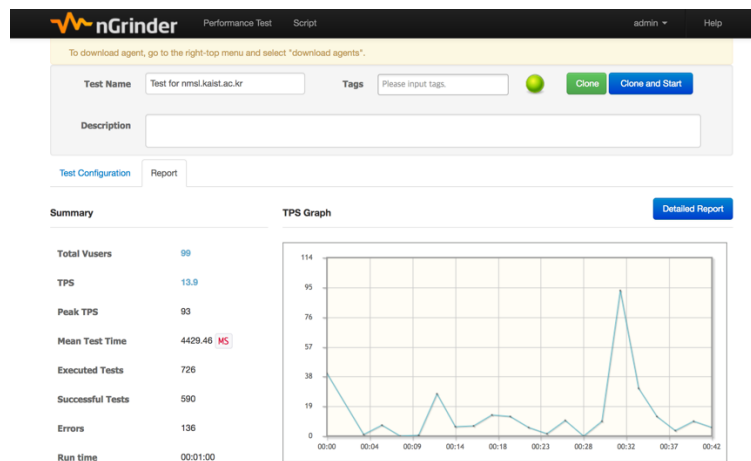
- Type URL : nmsl.kaist.ac.kr
- 3 개의 agent 사용
- Total Vuser : 6 / 99 / 888

Vuser 가 6 에서 99 로 커질 때, 평균 TPS(Transaction Per User)의 값은 100 에서 14 로 감소함을 확인 할 수 있었으며, Peak TPS 에는 변화의 폭이 거의 없음을 확인할 수 있었다. 또한, Vuser 가 888, 그리고 그 이상일 때는, error 로 인해 test 를 중단해야만 했다.

Vuser = 6



Vuser = 99



Vuser = 888

