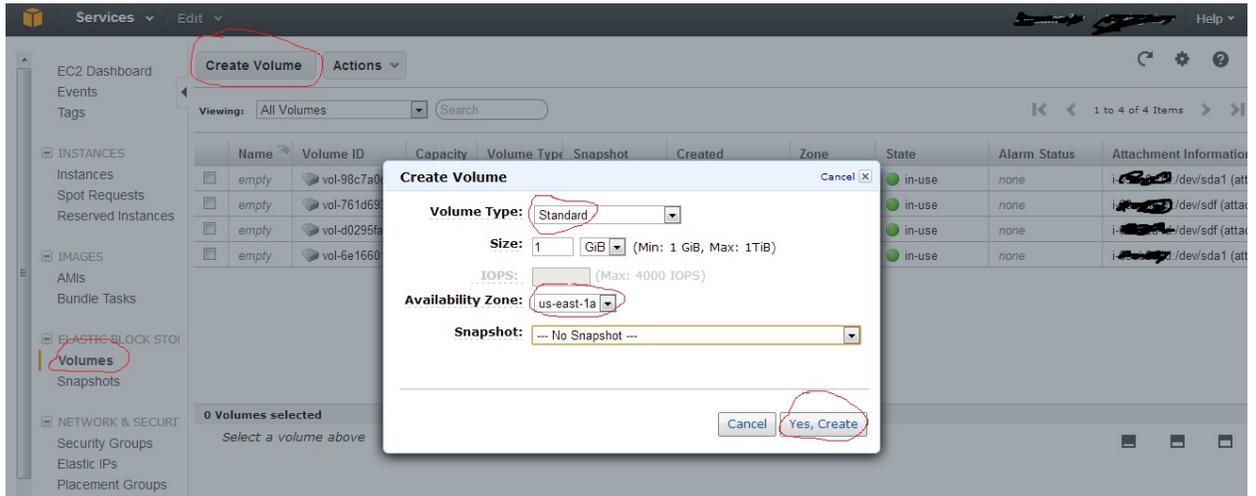


In this solution we use tomcat instead of other web/application servers

- 1) Remote login to your EC2 instance and execute the following command.
sudo apt-get install tomcat7 (This installs tomcat)
- 2) Create and attach EBS volume from web portal dashboard. EBS should be in same AZ as the EC2 instance. Use the snap shot below for reference.



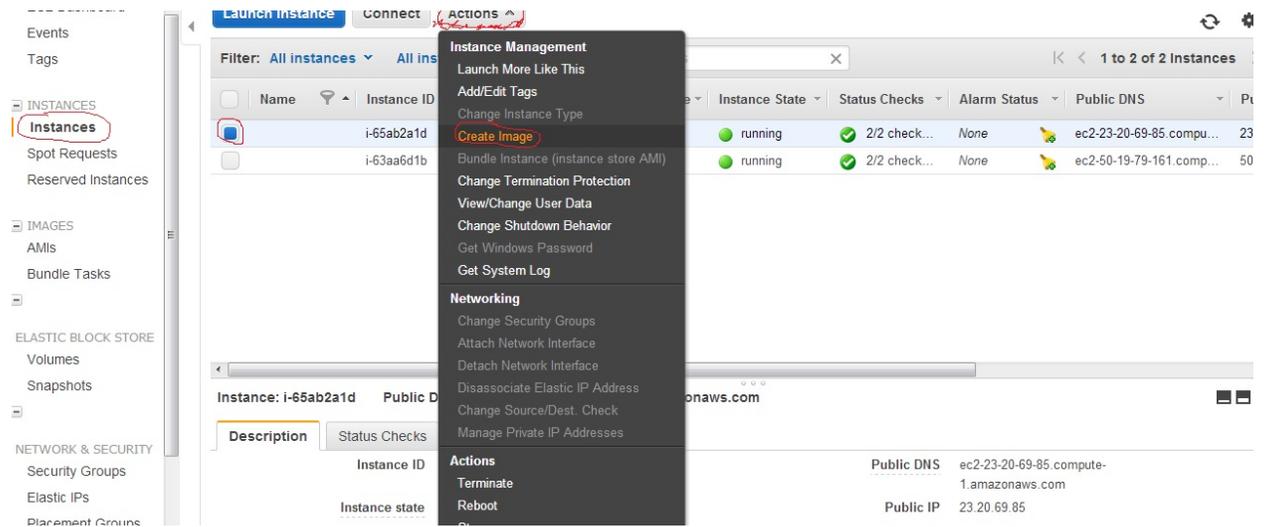
- 3) After creation goto Actions and attach the EBS to the EC2 instance.
- 4) Again on the remote login session execute the following commands:
lsblk (this command to list volumes)
sudo mkfs -t ext3 /dev/xvdf (where /dev/xvdf is the new volume name as listed with lsblk cmd)
sudo mkdir /mnt/abc (create new directory /mnt/abc to mount the new volume)
sudo mount /dev/xvdf /mnt/abc (this command mounts the volume in the newly created dir)
sudo mkdir /mnt/abc/tomcat-deploy (create new directory to place web app files)
sudo cp -r /var/lib/tomcat7/webapps/ROOT /mnt/abc/tomcat-deploy
- 5) Edit tomcat configuration files to change deployment dir from webapps to /mnt/abc/tomcat-deploy. Open the file using 'vi' (vi /etc/tomcat7/server.xml) and make the below change:

```
<Host name="localhost" appBase="/mnt/abc/tomcat-deploy"
```

Open the file 'vi /mnt/abc/tomcat-deploy/ROOT/index.html' and put some text that identifies this instance when this web page will be loaded.

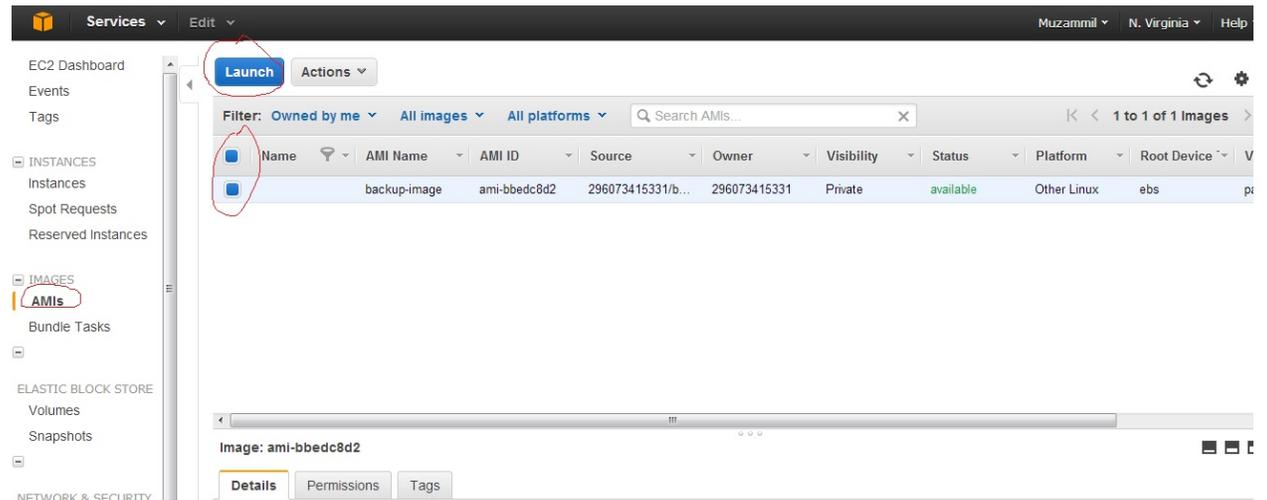
- 6) sudo service tomcat7 restart (Restart tomcat)
- 7) Create image of EC2 instance (EBS snapshot will be automatically created)

Use the below snapshot for reference.



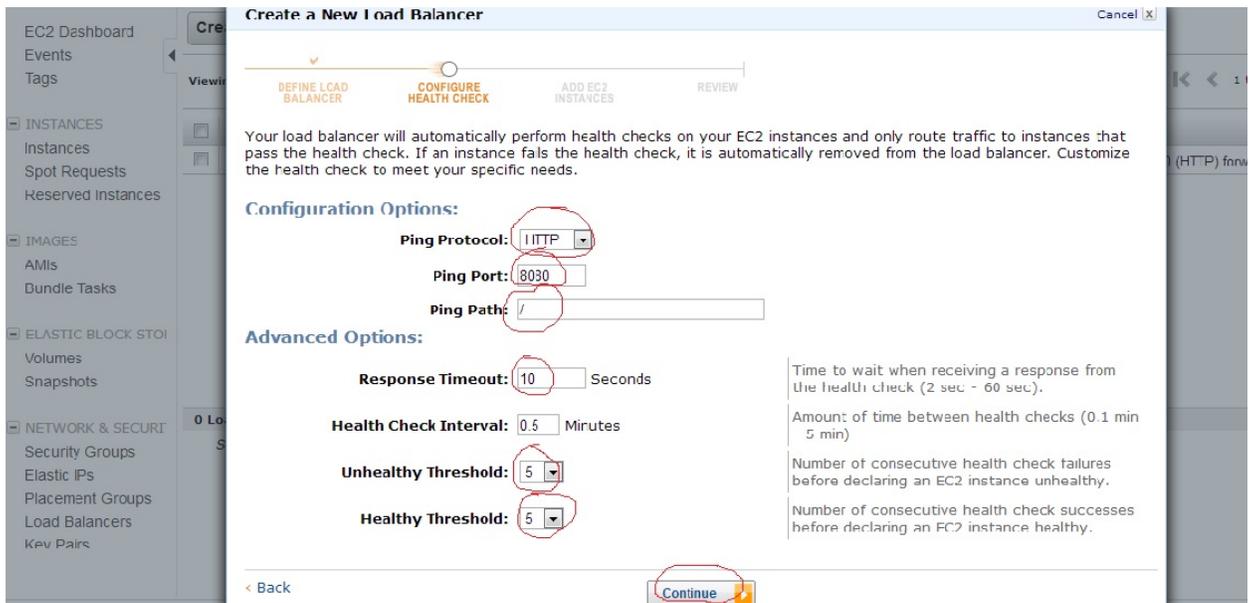
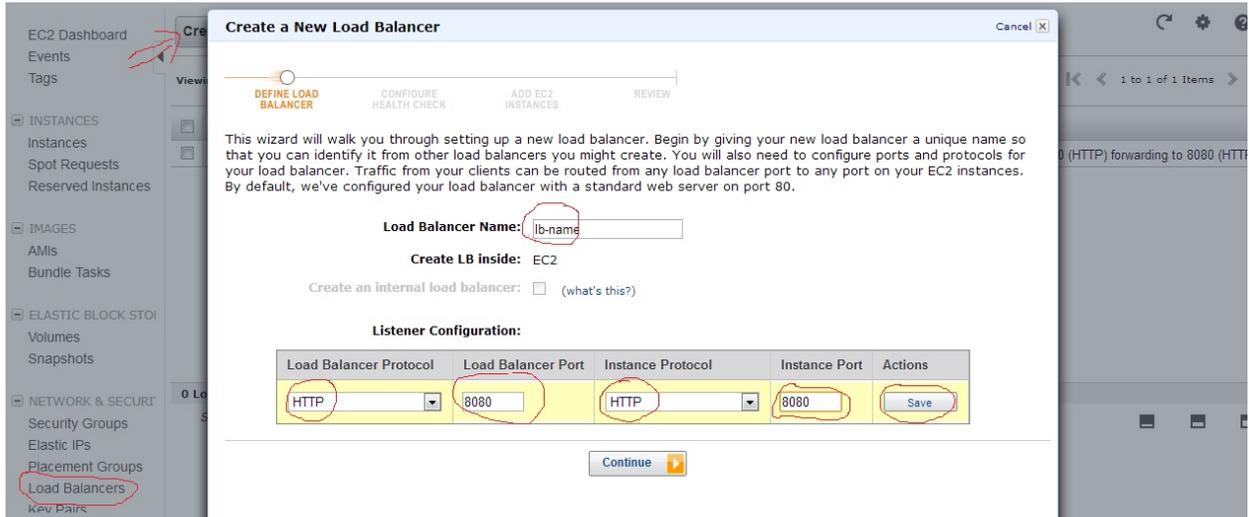
8) Goto IMAGES -> AMIs and launch new instance with AMI in different zone.

Use the below snapshots for reference.



9) Repeat tomcat EBS mounting related and tomcat related steps for this new EC2 instance.

10) Create Load balancer. Use snapshots below for reference.



Create a New Load Balancer Cancel X

DEFINE LOAD BALANCER
 CONFIGURE HEALTH CHECK
 ADD EC2 INSTANCES
 REVIEW

The table below lists all your running EC2 Instances that are not already behind another load balancer or part of an auto-scaling capacity group. Check the boxes in the Select column to add those instances to this load balancer.

Manually Add Instances to Load Balancer:

Select	Instance	Name	State	Security Groups	Availability Zone
<input checked="" type="checkbox"/>	i-65ab2a1d		● running	launch-wizard-2	us-east-1b
<input checked="" type="checkbox"/>	i-63aa6d1b		● running	launch-wizard-1	us-east-1c

select all | select none

Availability Zone Distribution:

- 1 instances in us-east-1b
- 1 instances in us-east-1c

< Back
 Continue

DEFINE LOAD BALANCER
 CONFIGURE HEALTH CHECK
 ADD EC2 INSTANCES
 REVIEW

DEFINE LOAD BALANCER

Load Balancer Name: lb-name
Scheme: internet-facing
Port Configuration: 8080 (HTTP) forwarding to 8080 (HTTP)

[Edit Load Balancer Definition](#)

CONFIGURE HEALTH CHECK

Ping Target: HTTP:8080:/
Timeout: 10
Interval: 0.5

Unhealthy Threshold: 5
Healthy Threshold: 5

[Edit Health Check](#)

ADD EC2 INSTANCES

EC2 Instances: i-65ab2a1d, i-63aa6d1b

[Edit EC2 Instance Selection](#)

VPC INFORMATION

VPC:
Subnets:

< Back
 Create

Please review your selections on this page. Clicking "Create" will launch your load balancer. Check the Amazon EC2 product page for load

EC2 Dashboard

Events

Tags

INSTANCES

Instances

Spot Requests

Reserved Instances

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORAGE

Volumes

Snapshots

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Load Balancers

Key Pairs

Create Load Balancer Delete

Viewing: All Load Balancers Search

Load Balancer Name	DNS Name	Port Configuration
load-balancer	load-balancer-135577796.us-east-1.elb.amazonaws.com	80 (HTTP) forwarding to 8080 (HTTP), 8080 (HTTP) forwarding to 8080 (HTTP)

1 Load Balancer selected

Load Balancer: load-balancer

Description Instances Health Check Monitoring Security Listeners

DNS Name: load-balancer-135577796.us-east-1.elb.amazonaws.com (A Record)
 ipv6.load-balancer-135577796.us-east-1.elb.amazonaws.com (AAAA Record)
 dualstack.load-balancer-135577796.us-east-1.elb.amazonaws.com (A or AAAA Record)

Note: Because the set of IP addresses associated with a LoadBalancer can change over time, you should never create an "A" record with any specific IP address. If you want to use a friendly DNS name for your LoadBalancer instead of the name generated by the Elastic Load Balancing service, you should create a CNAME record for the LoadBalancer DNS name, or use Amazon Route 53 to create a hosted zone. For more information, see the Using Domain Names With Elastic Load Balancing

Scheme: internet-facing

Status: 2 of 2 instances in service

Port Configuration: 80 (HTTP) forwarding to 8080 (HTTP) (edit)
 Stickiness: Disabled

After adding the instance in the load balancer it takes some time to check the health of the instances attached. Once the setup is ready you see Status as 2 of 2 instances in service (shown in the last snapshot)

To test the setup use the public DNS Name of load balancer and make a request typing the following in the browser :

<http://<public dns name>:8080>

Refresh the page multiple times or use different browser for multiple requests.

You should now be able to differentiate the serving instance based on instance specific text you put in the index.html file