Deploy Document -- ProcessMaker and PMT

`ssyytt`

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0. Pre

This cloud software is deployed in RHEL 7.4 environment, this document contains how to deploy a "instance", this instance contains a ProcessMaker and our PMT part together. The instance is deployed to AWS EC2, and one EC2 has one and only "instance".

This document will guide you how to deploy in action, with command and screen shot. But I won't explain the command in detail.

Assume you have already have a AWS account, assume you have use EC2 before, assume you have use .pem file (key) to SSH access the EC2 before. If not, try to implement the above process and then read this document.

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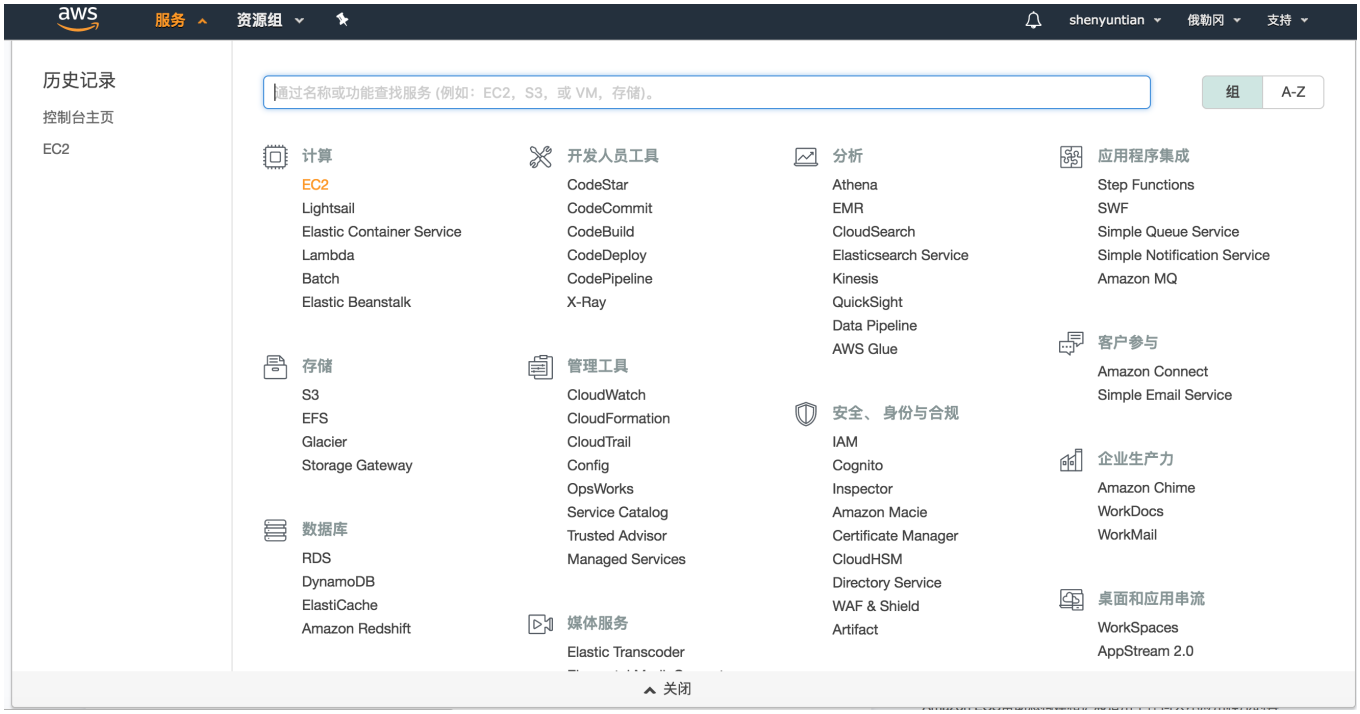
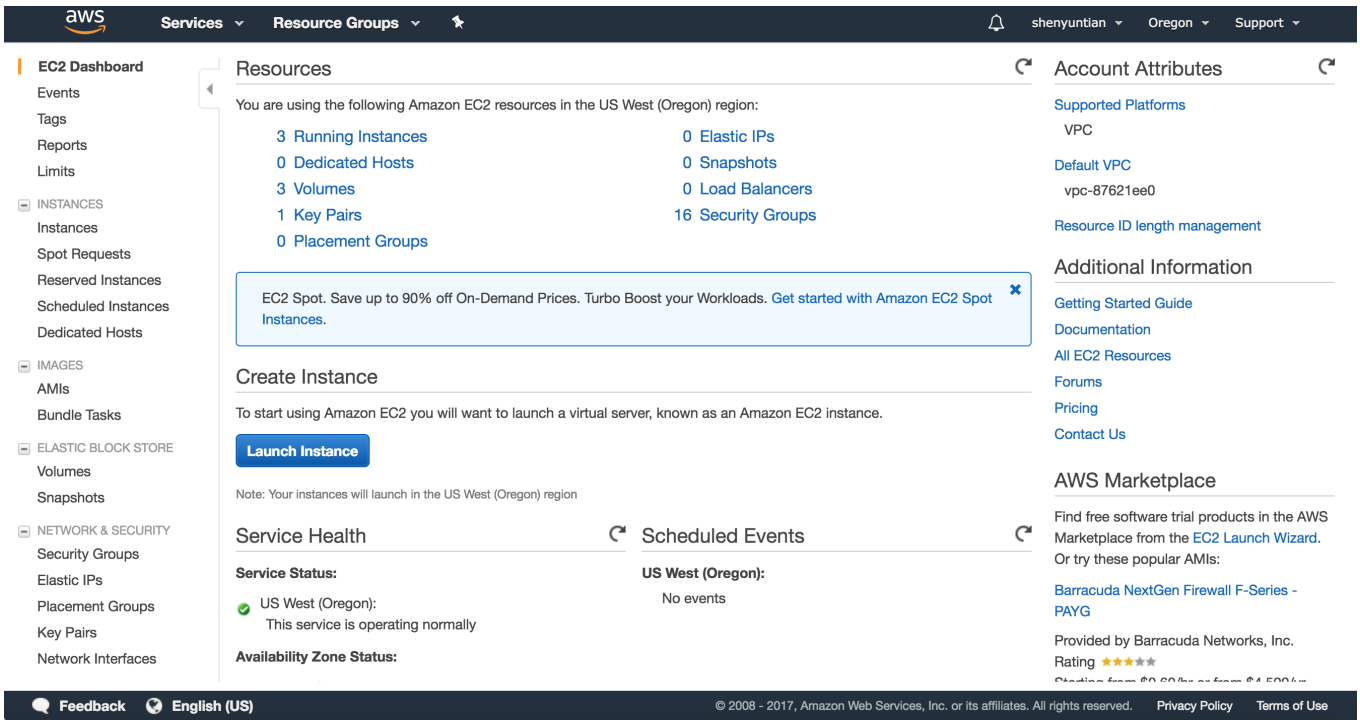
1. Create EC2 instance

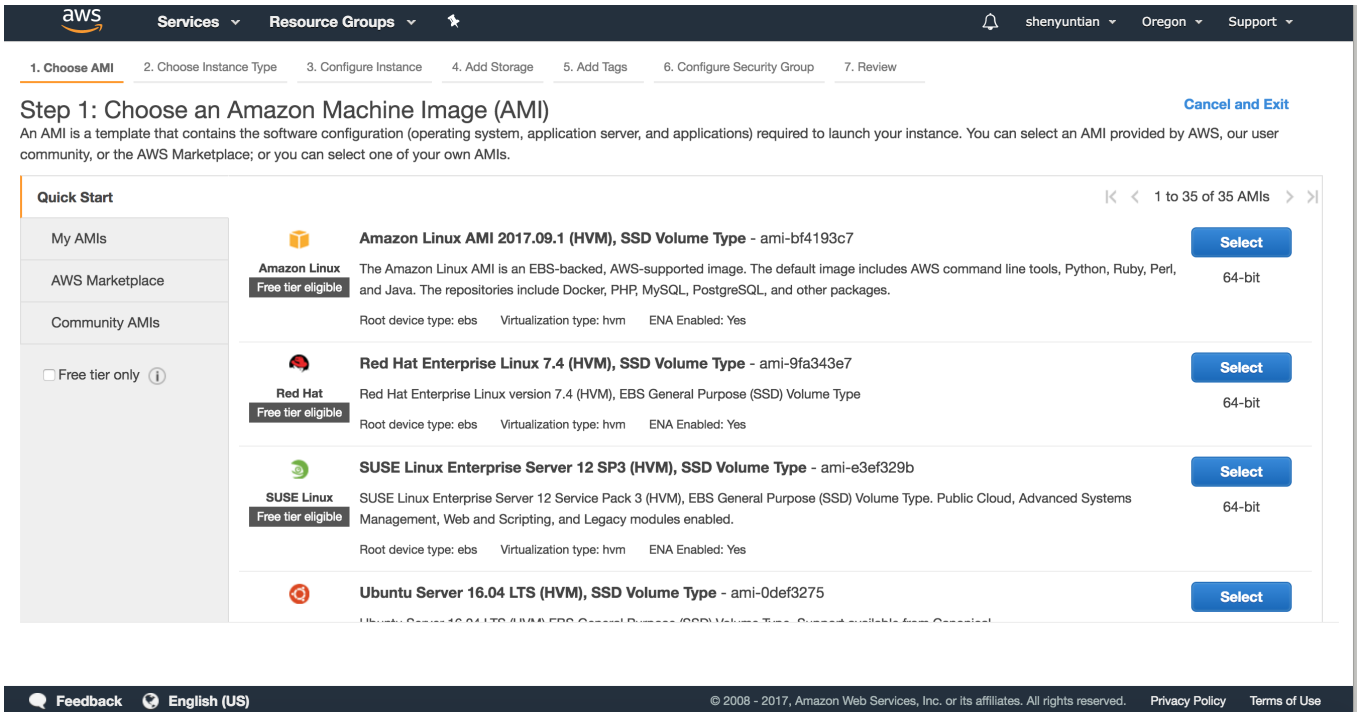
Login to the account to create a EC2 instance, choose EC2.



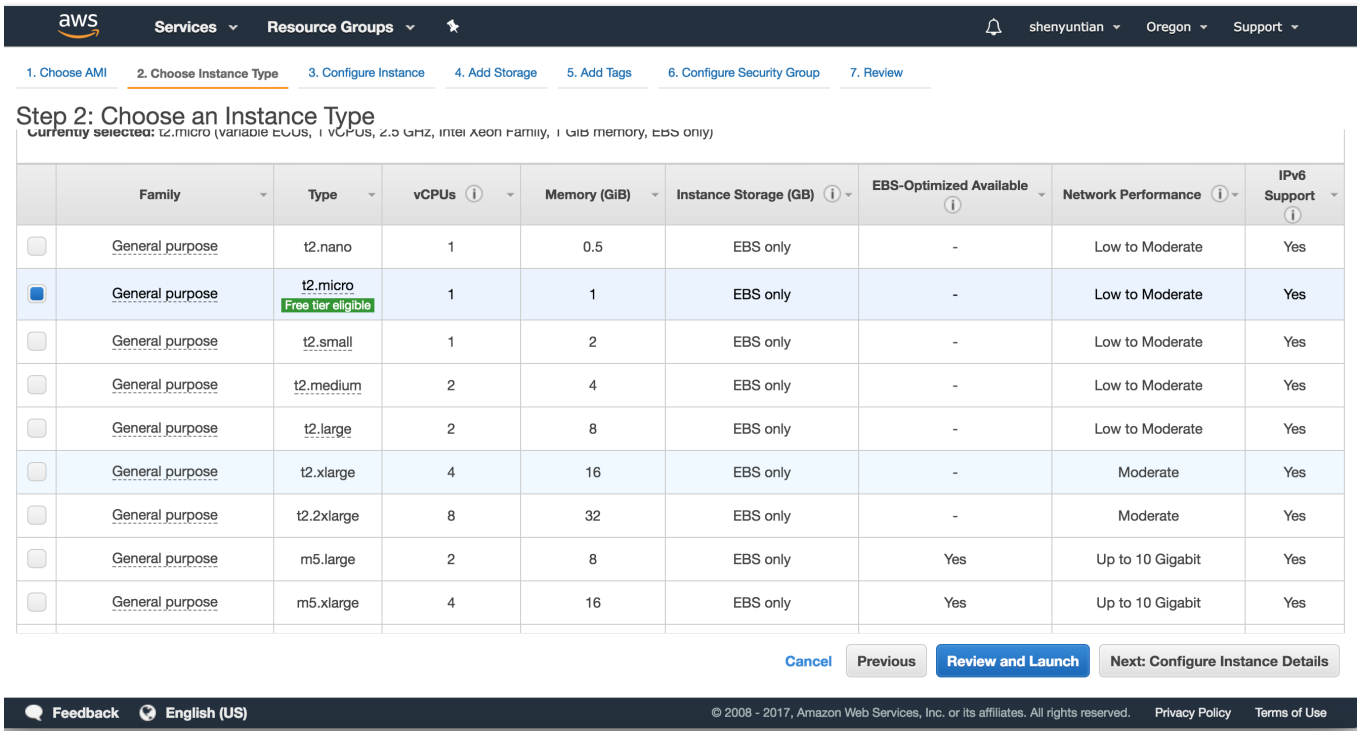
Click the button "Launch Instance".



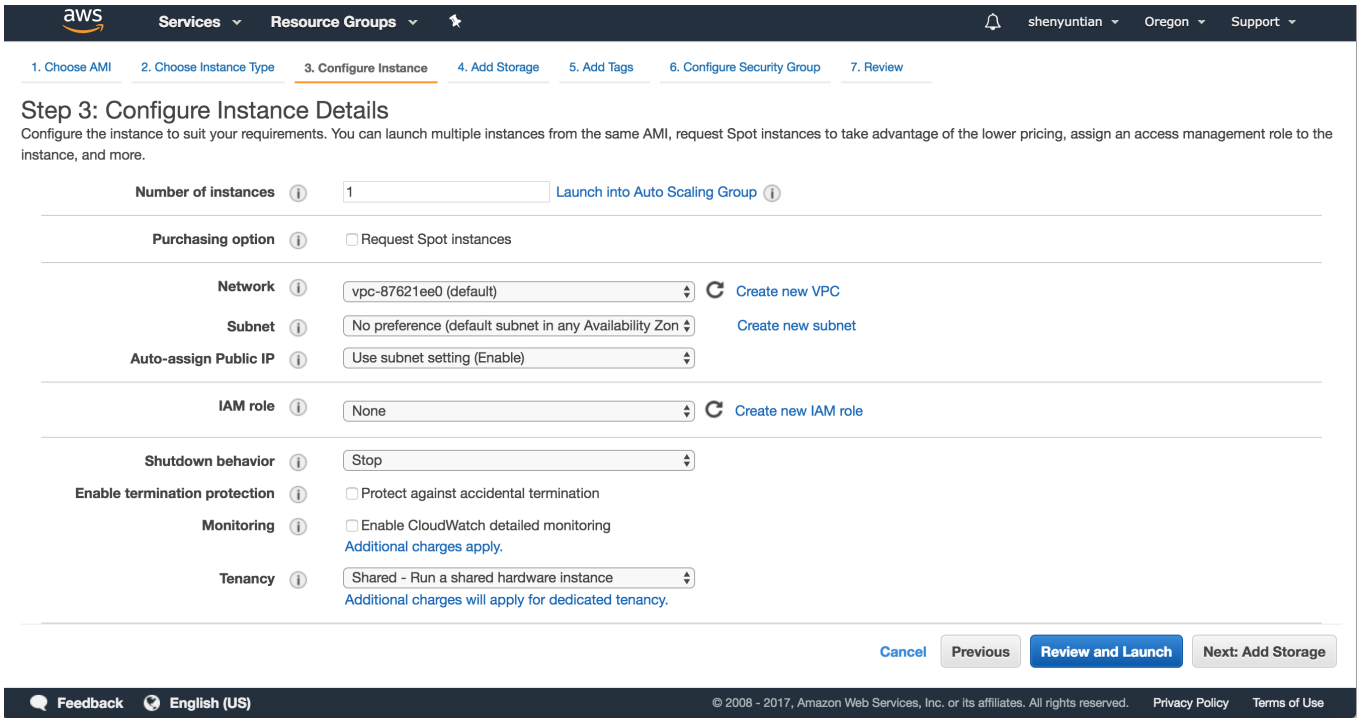
In the step 1, Select the "Red Hat Enterprise Linux 7.4 (HVM), SSD Volumn Type" as the image in the EC2 instance.



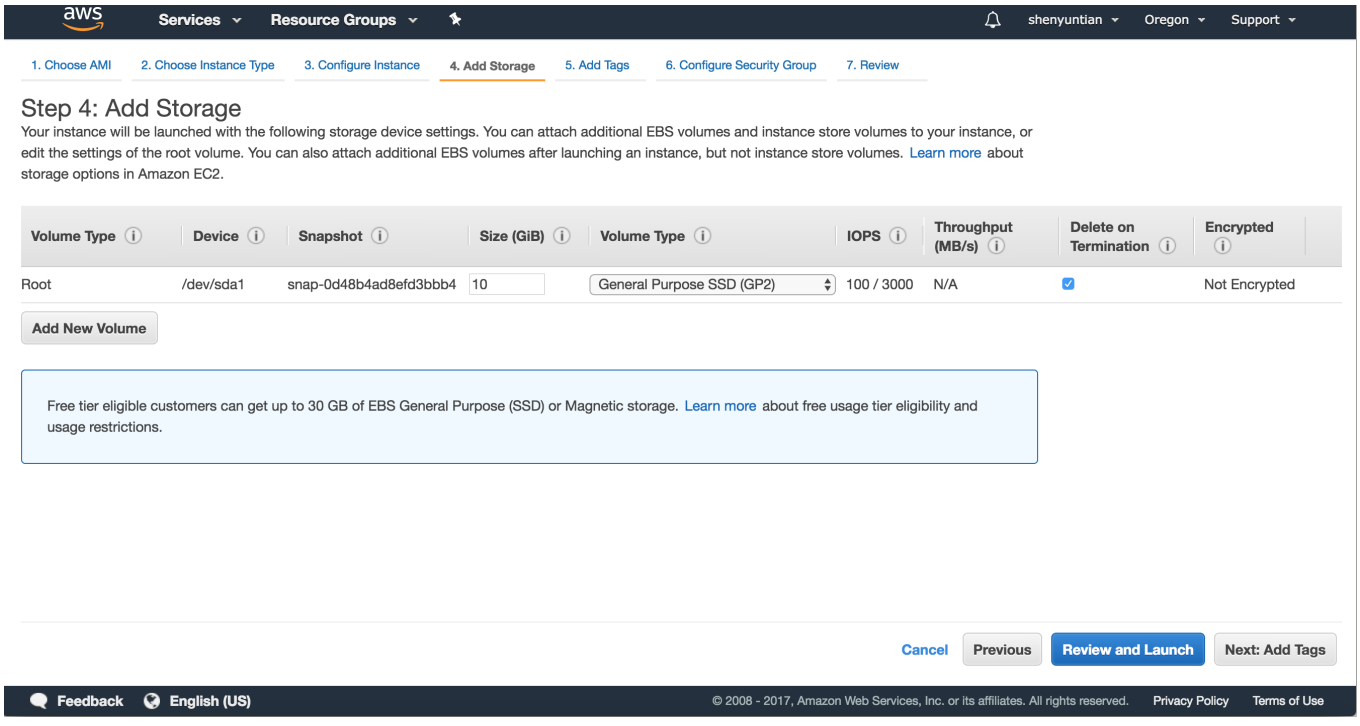
In the type 2, Choose the default instance type, and then click button "Next: Configure Instance Details".



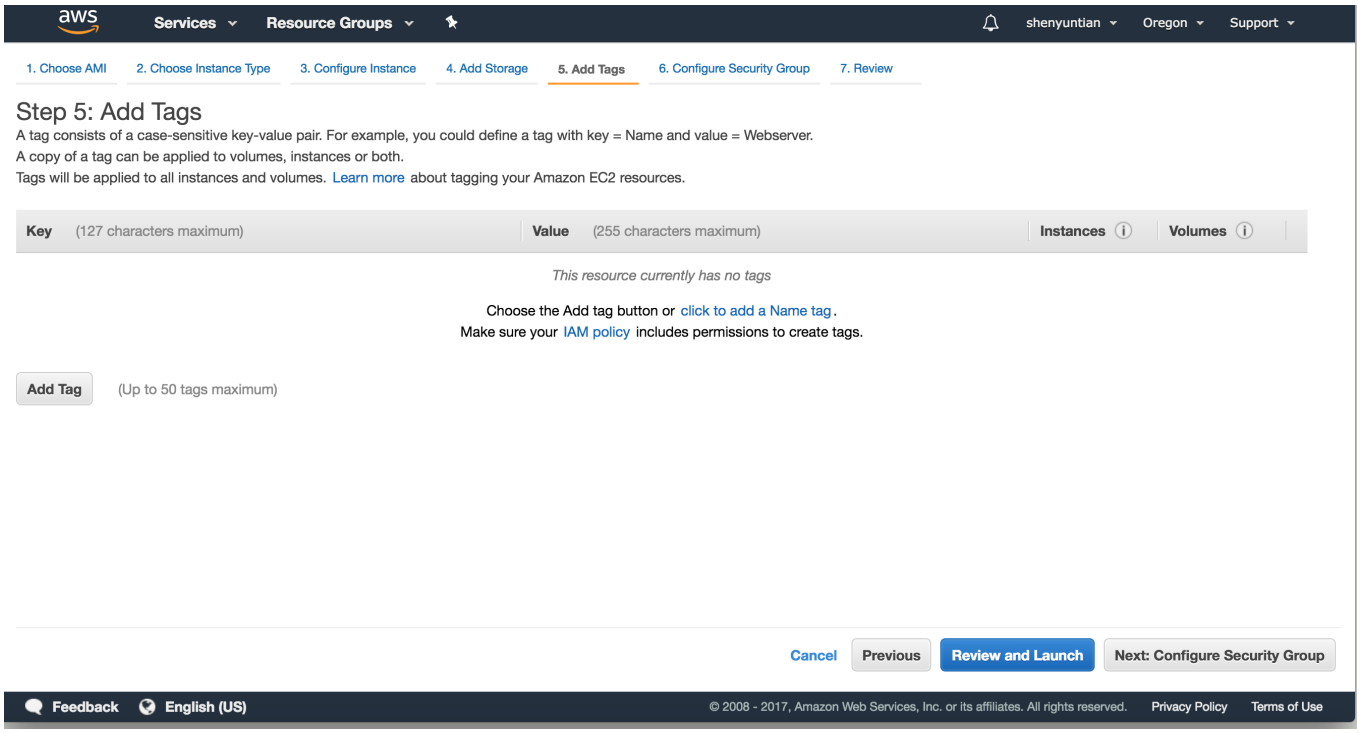
In the step 3 Configure Instance Details page, configure nothing, directly click button "Next: Add Storage".



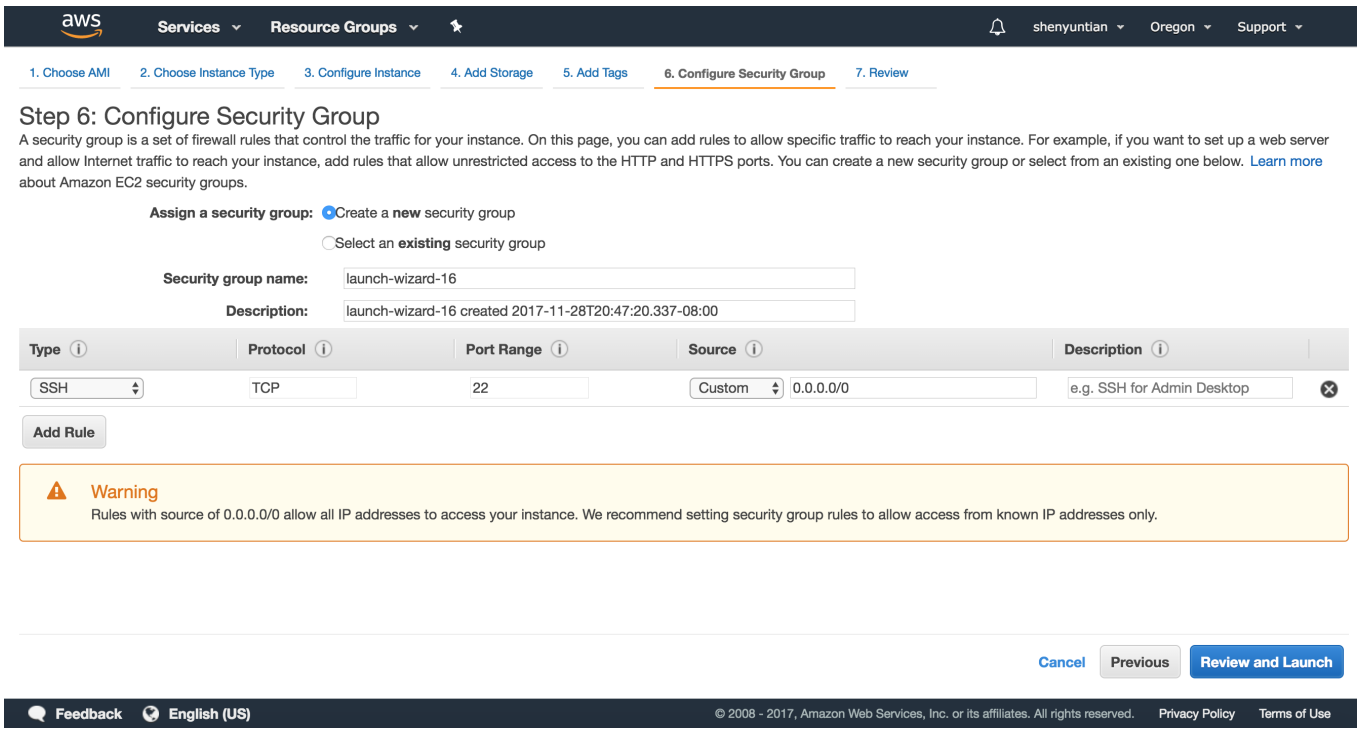
In the step 4 add storage page, configure nothing, directly click button "Next: Add tag".



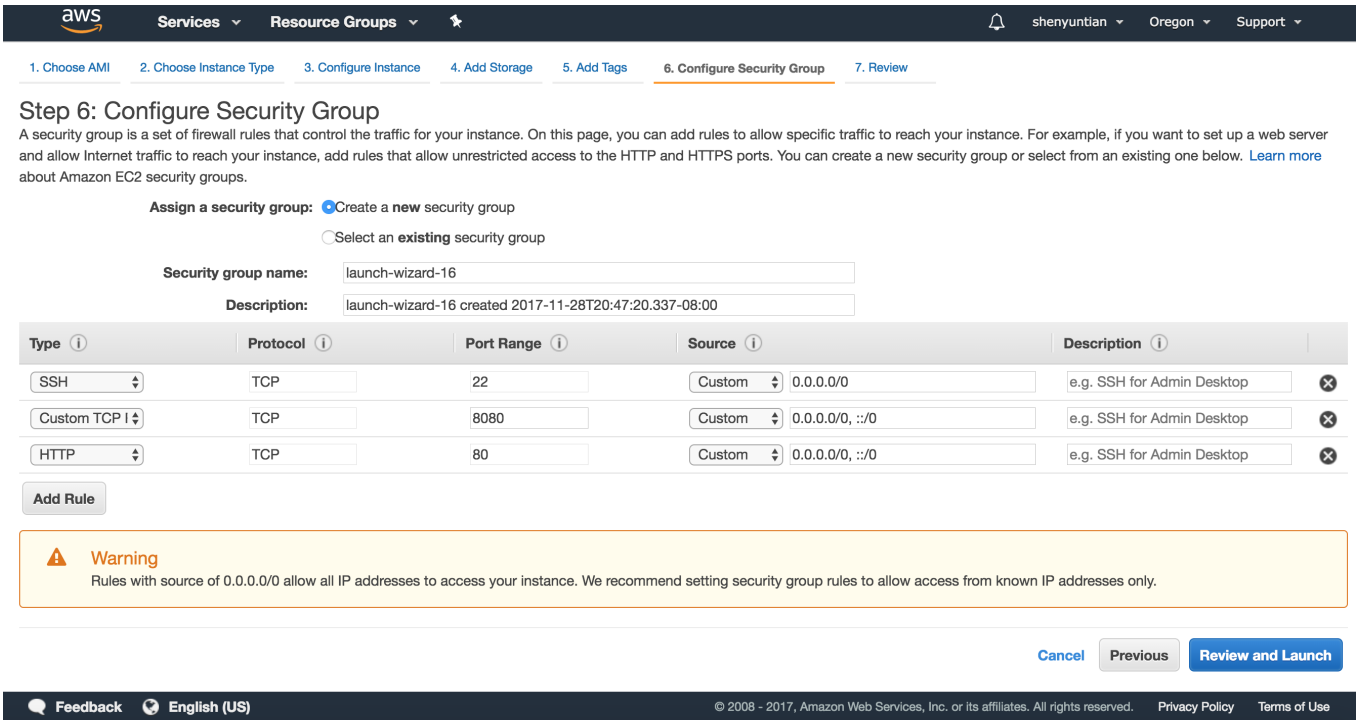
In the step 5 add tags, configure nothing, directly click button "Next: Configure Security Group".



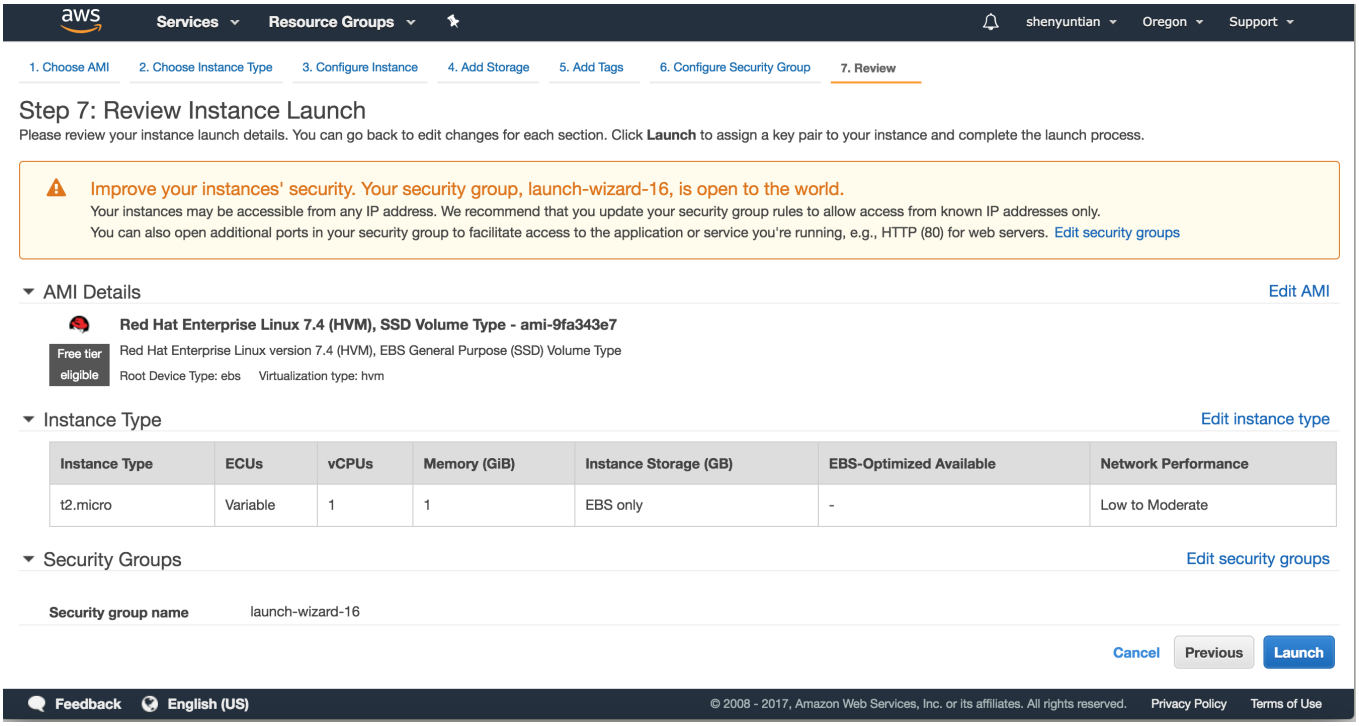
In the step 5 Configure Security Group, the init type is "SSH", as shown below, you neen to configure 80 and 8080



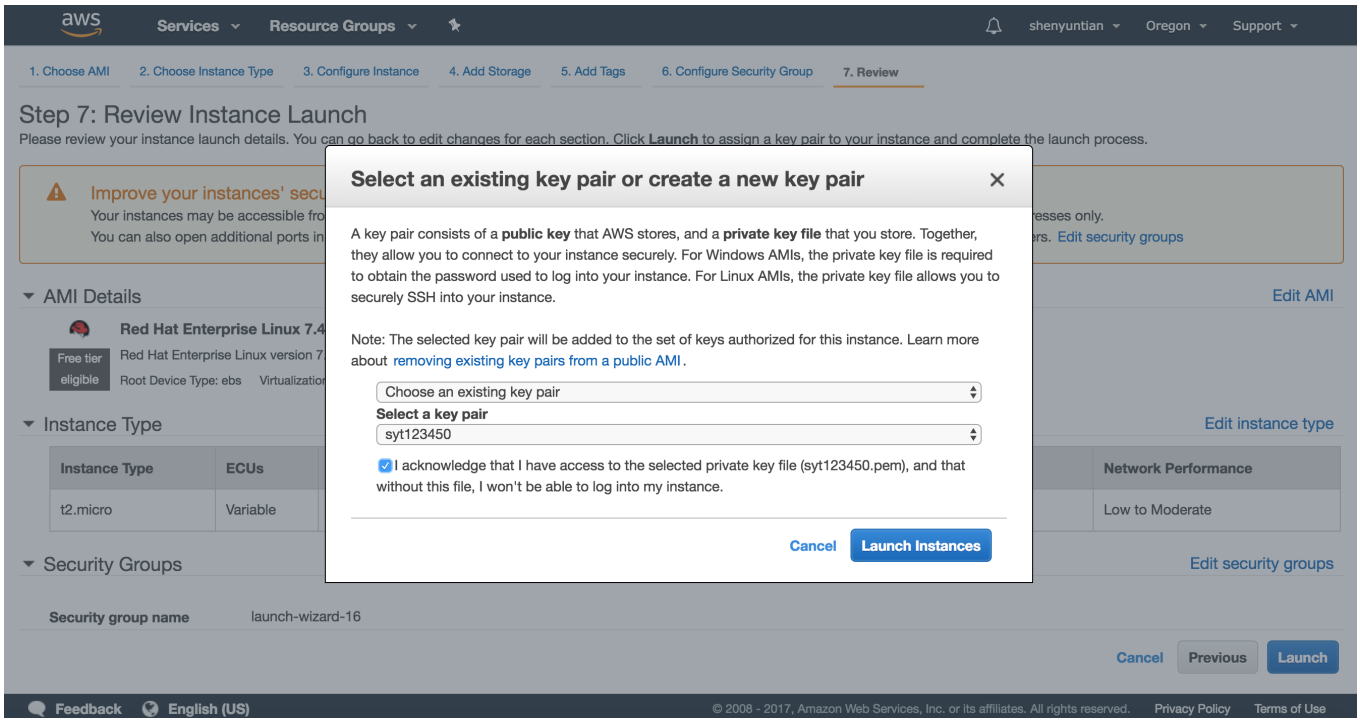
The configure of port 80 and 8080 is as shown below, after add two types, click button "Review and Launch".



In step 7, click button "Launch"



As you have a key before (if you have experience with EC2), choose a key pair, in the Screen Shot, I choose "syt123450", and click "Launch Instances", wait for a short time for instance to init.



Execute the following command to the server. to prepare for the deploy. (replace my pem with yours and use your own EC2 IP)
sudo -i

```
ss@sytdeMacBook-Pro ~> ssh -i ~/Downloads/syt123450.pem ec2-user@34.215.25.74
The authenticity of host '34.215.25.74 (34.215.25.74)' can't be established.
ECDSA key fingerprint is SHA256:/5i44IqduUZusIvd5M1vEaY6iicQyaKH9wPsQvdJ49U.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '34.215.25.74' (ECDSA) to the list of known hosts.
[ec2-user@ip-172-31-24-137 ~]$ sudo -i
[root@ip-172-31-24-137 ~]#
```

2. Configure Environment

After you create a instance, click the configure the environment for later use.

2.1 Java

yum install java-1.8.0-openjdk.x86_64

```
[root@ip-172-31-24-137 ~]# yum install java-1.8.0-openjdk.x86_64
Loaded plugins: amazon-id, rhui-lb, search-disabled-repos
rhui-REGION-client-config-server-7                        | 2.9 kB     00:00
rhui-REGION-rhel-server-releases                          | 3.5 kB     00:00
rhui-REGION-rhel-server-rh-common                         | 3.8 kB     00:00
Resolving Dependencies
--> Running transaction check
---> Package java-1.8.0-openjdk.x86_64 1:1.8.0.151-1.b12.el7_4 will be installed
--> Processing Dependency: java-1.8.0-openjdk-headless(x86-64) = 1:1.8.0.151-1.b
12.el7_4 for package: 1:java-1.8.0-openjdk-1.8.0.151-1.b12.el7_4.x86_64
--> Processing Dependency: fontconfig(x86-64) for package: 1:java-1.8.0-openjdk-
1.8.0.151-1.b12.el7_4.x86_64
--> Processing Dependency: libasound.so.2(ALSA_0.9)(64bit) for package: 1:java-1
.8.0-openjdk-1.8.0.151-1.b12.el7_4.x86_64
--> Processing Dependency: libasound.so.2(ALSA_0.9.0rc4)(64bit) for package: 1:j
ava-1.8.0-openjdk-1.8.0.151-1.b12.el7_4.x86_64
--> Processing Dependency: libjava.so(SUNWprivate_1.1)(64bit) for package: 1:jav
```

input y to continue

```
 libXrender          x86_64 0.9.10-1.el7  rhui-REGION-rhel-server-releases  26 k
 libXtst             x86_64 1.2.3-1.el7   rhui-REGION-rhel-server-releases  20 k
 libfontenc          x86_64 1.1.3-3.el7   rhui-REGION-rhel-server-releases  31 k
 libjpeg-turbo       x86_64 1.2.90-5.el7  rhui-REGION-rhel-server-releases 134 k
 libpng              x86_64 2:1.5.13-7.el7_2
                                          rhui-REGION-rhel-server-releases 213 k
 libxcb              x86_64 1.12-1.el7    rhui-REGION-rhel-server-releases 211 k
 lksctp-tools        x86_64 1.0.17-2.el7  rhui-REGION-rhel-server-releases  88 k
 python-javapackages
                     noarch 3.4.1-11.el7  rhui-REGION-rhel-server-releases  31 k
 stix-fonts          noarch 1.1.0-5.el7   rhui-REGION-rhel-server-releases 1.3 M
 ttmkfdir            x86_64 3.0.9-42.el7  rhui-REGION-rhel-server-releases  48 k
 tzdata-java         noarch 2017c-1.el7   rhui-REGION-rhel-server-releases 183 k
 xorg-x11-font-utils
                     x86_64 1:7.5-20.el7  rhui-REGION-rhel-server-releases  87 k
 xorg-x11-fonts-Type1
                     noarch 7.5-9.el7     rhui-REGION-rhel-server-releases 521 k

Transaction Summary
================================================================================
Install  1 Package (+29 Dependent packages)

Total download size: 37 M
Installed size: 115 M
Is this ok [y/d/N]: y
```

success install

```
================================================================================
Install  1 Package

Total download size: 552 k
Installed size: 914 k
Is this ok [y/d/N]: y
Downloading packages:
screen-4.1.0-0.23.20120314git3c2946.el7_2.x86_64.rpm       | 552 kB   00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : screen-4.1.0-0.23.20120314git3c2946.el7_2.x86_64             1/1
  Verifying  : screen-4.1.0-0.23.20120314git3c2946.el7_2.x86_64             1/1

Installed:
  screen.x86_64 0:4.1.0-0.23.20120314git3c2946.el7_2

Complete!
[root@ip-172-31-24-137 ~]#
```

2.2 Screen

yum install screen

```
[root@ip-172-31-24-137 ~]# yum install screen
Loaded plugins: amazon-id, rhui-lb, search-disabled-repos
Resolving Dependencies
--> Running transaction check
---> Package screen.x86_64 0:4.1.0-0.23.20120314git3c2946.el7_2 will be installe
d
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
 Package
        Arch   Version                      Repository                      Size
================================================================================
Installing:
 screen x86_64 4.1.0-0.23.20120314git3c2946.el7_2
                                            rhui-REGION-rhel-server-releases 552 k
```

input y to continue

```
Dependencies Resolved

================================================================================
 Package
        Arch   Version                    Repository                       Size
================================================================================
Installing:
 screen x86_64 4.1.0-0.23.20120314git3c2946.el7_2
                                          rhui-REGION-rhel-server-releases 552 k

Transaction Summary
================================================================================
Install  1 Package

Total download size: 552 k
Installed size: 914 k
Is this ok [y/d/N]: y
```

success install

```
================================================================================
Install  1 Package

Total download size: 552 k
Installed size: 914 k
Is this ok [y/d/N]: y
Downloading packages:
screen-4.1.0-0.23.20120314git3c2946.el7_2.x86_64.rpm       | 552 kB   00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : screen-4.1.0-0.23.20120314git3c2946.el7_2.x86_64              1/1
  Verifying  : screen-4.1.0-0.23.20120314git3c2946.el7_2.x86_64              1/1

Installed:
  screen.x86_64 0:4.1.0-0.23.20120314git3c2946.el7_2

Complete!
[root@ip-172-31-24-137 ~]#
```

3. Deploy ProcessMaker

go to the next link to download linux processmaker to your local
https://bitnami.com/stack/processmaker/installer

scp to server, replace my pem with your own, and use your own EC2 IP

```
ss@sytdeMacBook-Pro ~> scp -i ~/Downloads/syt123450.pem  ~/desktop/bitnami-proce
ssmakercommunity-3.2.1-2-linux-x64-installer.run  ec2-user@34.215.25.74:/tmp
```

cd /tmp

```
[root@ip-172-31-24-137 ~]# cd /tmp
```

Execute two command below

```
[root@ip-172-31-24-137 tmp]# chmod +x ./bitnami-processmakercommunity-3.2.1-2-li
nux-x64-installer.run
[root@ip-172-31-24-137 tmp]# ./bitnami-processmakercommunity-3.2.1-2-linux-x64-i
nstaller.run
```

input y to start

```
[root@ip-172-31-24-137 tmp]# chmod +x ./bitnami-processmakercommunity-3.2.1-2-li
nux-x64-installer.run
[root@ip-172-31-24-137 tmp]# ./bitnami-processmakercommunity-3.2.1-2-linux-x64-i
nstaller.run
Bitnami Stack for ProcessMaker Community requires at least 1000MB of memory and
the installer has detected 990MB of memory. This may prevent the application fro
m installing, working properly or cause it to stop functioning due to lack of me
mory. Visit the following link to learn how to increase the swap space.

https://bitnami.com/lowmemory

Continue with installation? [Y/n]: Y
```

input y

```
ProcessMaker : Y (Cannot be edited)

PhpMyAdmin [Y/n] :Y
```

input y

```
Is the selection above correct? [Y/n]: Y
```

copy the default folder

```
-----------------------------------------------------------------------
Installation folder

Please, choose a folder to install Bitnami Stack for ProcessMaker Community

Select a folder [/opt/processmaker-3.2.1-2]: /opt/processmaker-3.2.1-2
```

input your name

```
-----------------------------------------------------------------------
Create Admin account

Bitnami Stack for ProcessMaker Community admin user creation

Your real name [User Name]: syt123450
```

input your email

```
-----------------------------------------------------------------------
Create Admin account

Bitnami Stack for ProcessMaker Community admin user creation

Your real name [User Name]: syt123450

Email Address [user@example.com]: syt123450@gmail.com
```

select the 80 port

```
-----------------------------------------------------------------------
Web Server Port

Choose a port that is not currently in use, such as port 80.

Apache Web Server Port [80]: 80

-----------------------------------------------------------------------
Web Server Port

Choose a port that is not currently in use, such as port 443.

SSL Port [443]: 443
```

select 443, do not configure mail

```
------------------------------------------------------------------------------
Web Server Port

Choose a port that is not currently in use, such as port 443.

SSL Port [443]: 443

Do you want to configure mail support? [y/N]: n

------------------------------------------------------------------------------
```

Y to complete

```
------------------------------------------------------------------------------
Setup has finished installing Bitnami Stack for ProcessMaker Community on your
computer.

Launch Bitnami Stack for ProcessMaker Community [Y/n]: y
```

input your EC2 IP in browser, you will see the page if successfully deployed

4. Deploy PMT

clone the github and use maven to package the source to get jar file, and upload to server

```
ss@sytdeMacBook-Pro ~> scp -i ~/Downloads/syt123450.pem  ~/desktop/pmt-0.0.1-SNAPSHOT.jar  ec2-user@34.215.25.74:/tmp
pmt-0.0.1-SNAPSHOT.jar                        100%   18MB   8.8MB/s   00:02
ss@sytdeMacBook-Pro ~>
```

screen

```
[root@ip-172-31-24-137 tmp]# screen
```

java -jar to start

```
[root@ip-172-31-24-137 tmp]# ls
bitnami-processmakercommunity-3.2.1-2-linux-x64-installer.run
bitrock_installer.log
hsperfdata_root
pmt-0.0.1-SNAPSHOT.jar
systemd-private-f6b92fe1f0ab44fab0ae1344f5b65fc2-chronyd.service-ltVLcI
[root@ip-172-31-24-137 tmp]# java -jar pmt-0.0.1-SNAPSHOT.jar
```

if success will show next info, "control + A + D" to exit

```
ork.boot.autoconfigure.web.BasicErrorController.error(javax.servlet.http.HttpServletRequest)
2017-11-30 22:02:44.419  INFO 25527 --- [           main] o.s.w.s.handler.SimpleUrlHandlerMapping  : Mapped URL path [/webjars/**] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2017-11-30 22:02:44.419  INFO 25527 --- [           main] o.s.w.s.handler.SimpleUrlHandlerMapping  : Mapped URL path [/**] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2017-11-30 22:02:44.508  INFO 25527 --- [           main] o.s.w.s.handler.SimpleUrlHandlerMapping  : Mapped URL path [/**/favicon.ico] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2017-11-30 22:02:44.794  INFO 25527 --- [           main] o.s.j.e.a.AnnotationMBeanExporter        : Registering beans for JMX exposure on startup
2017-11-30 22:02:45.022  INFO 25527 --- [           main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat started on port(s): 8080 (http)
2017-11-30 22:02:45.043  INFO 25527 --- [           main] com.pmtemplate.PmtApplication            : Started PmtApplication in 7.584 seconds (JVM running for 8.853)
```

you can input your EC2 ip:8080 in browser, if successfully deploy, you will see hello world