Harbor+Docker+Zabbix的部署

部署规划:

192.168.4.60 --zabbix\_60

192.168.4.61 --docker\_61

192.168.4.62 --harbor\_62

在192.168.4.60的主机上部署zabbix服务.

zabbix-3.4.4.tar.gz准备软件包:

nginx-1.15.8.tar.gz mysql-5.7.17.tar zabbix-3.4.4.tar.gz

1. .搭建LNMP平台:

1.将下载好的软件包移动到/opt目录下,并解压;

]# tar - xvf nginx-1.15.8.tar.gz -C /opt

]# tar - xvf mysql-5.7.17.tar - C /opt

]# tar - xvf zabbix-3.4.4.tar.gz -C /opt

1. 本地yum源下载环境准备的安装包;

]# yum - y install gcc make pcre-devel zlib-devel openssl-devel

1. 源码编译安装nginx;

]# cd /opt/nginx-1.15.8

]# useradd -s /sbin/nologin nginx

]# ./configure --user=nginx \

> --with-http\_ssl\_module \

> --with-http\_stub\_status\_module

]# make && make install

1. 本地yum源下载动态网页软件包

]# yum -y install php php-fpm php-mysql

1. 开启nginx.conf的支持php动态网页模块

]# vim /usr/local/nginx/conf/nginx.conf

65 fastcgi\_buffers 8 16k; //缓存php生成的页面内容，8个16k

66 fastcgi\_buffer\_size 32k; //缓存php生产的头部信息

67 fastcgi\_connect\_timeout 300; //连接PHP的超时时间

68 fastcgi\_send\_timeout 300; //发送请求的超时时间

69 fastcgi\_read\_timeout 300; //读取请求的超时时间

70 location ~ \.php$ {

71 root html;

72 fastcgi\_pass 127.0.0.1:9000;

73 fastcgi\_index index.php;

74 #fastcgi\_paramSCRIPT\_FILENAME/scripts$fastcgi\_script\_name;

75 include fastcgi.conf;

76 }

:wq

1. 安装的mysql数据库;

]# cd /opt

]# yum -y install mysql-community-\*.rpm

1. 设置nginx开机自启;

]# cd /usr/lib/systemd/system

]# cp tcsd.service nginx.service

]# vim nginx.service

[Unit]

Description=Nginx service Daemon

After=network.target

[Service]

Type=forking

ExecStart=/usr/local/nginx/sbin/nginx

ExecReload=/usr/local/nginx/sbin/nginx -s reload

ExecStop=/usr/local/nginx/sbin/nginx -s stop

[Install]

WantedBy=multi-user.target

:wq

1. 启动服务设置开机自启;

]# systemctl daemon-reload

]# systemctl enable php-fpm mysqld nginx.service

]# systemctl restart php-fpm mysqld nginx.service

以上LNMP平台搭建完成

2).部署监控服务器zabbix server

]# yum -y install net-snmp-devel curl-devel libevent-devel

]# cd /opt/zabbix-3.4.4

]# ./configure --enable-server --enable-proxy \

> --enable-agent --with-mysql=/usr/bin/mysql\_config \

> --with-net-snmp --with-libcurl

// --enable-server安装部署zabbix服务器端软件

// --enable-agent安装部署zabbix被监控端软件

// --enable-proxy安装部署zabbix代理相关软件

// --with-mysql配置mysql\_config路径

// --with-net-snmp允许zabbix通过snmp协议监控其他设备

// --with-libcurl安装相关curl库文件，这样zabbix就可以通过curl连接http等服务，测试被监控主机服务的状态

]# make && make install

1. .创建数据库上线zabbix页面

]# vim /etc/my.conf

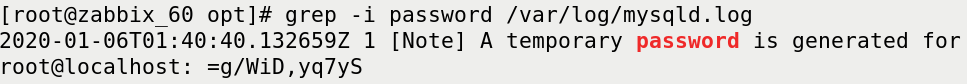
[mysqld]

validate\_password\_policy=0

validate\_password\_length=6

:wq

]# grep -i ‘password’ /var/log/mysqld.log



]# mysql -uroot -p’=g/WiD,yq7yS’

mysql> alter user root@'localhost' identified by '123qqq...A';

mysql> exit;

]# systemctl restart mysqld

]# mysql -uroot -p123qqq...A

mysql> create database zabbix character set utf8;

mysql> grant all on zabbix.\* to zabbix@'localhost' identified by 'zabbix';

mysql> exit;

cd /opt/zabbix-3.4.4/database/mysql/

]# mysql -uzabbix -pzabbix zabbix < schema.sql

]# mysql -uzabbix -pzabbix zabbix < images.sql

]# mysql -uzabbix -pzabbix zabbix < data.sql

// 按照顺序导入以上数据

上线页面:

]# cd /opt/zabbix-3.4.4/frontends/php/

]# cp -r \* /usr/local/nginx/html/

]# chmod -R 777 /usr/local/nginx/html/\*

修改zabbix server配置文件,并启动服务;

]# vim /usr/local/etc/zabbix\_server.conf

38 LogFile=/tmp/zabbix\_server.log

85 DBHost=localhost //DB上线数据库信息

95 DBName=zabbix ...

111 DBUser=zabbix

119 DBPassword=zabbix

wq

]# useradd -s /sbin/nologin zabbix

]# zabbix\_server

修改zabbix agent配置文件,并启动服务;

]# vim /usr/local/etc/zabbix\_agentd.conf

30 LogFile=/tmp/zabbix\_server.log

93 Server=127.0.0.1,192.168.4.254 //允许那些主机监控

134 ServerActive=127.0.0.1 //主动监控模式允许用户

145 Hostname=zabbix\_60

264 Include=/usr/local/etc/zabbix\_agentd.conf.d/ //自定义key目录

280 UnsafeUserParameters=1 //自定义key脚本监控

:wq

]# zabbix\_agentd //启动监控agent被监控服务

]# yum -y install php-gd php-xml php-bcmath php-mbstring

]# vim /etc/php.ini

384 max\_execution\_time = 300               //最大执行时间300秒

394 max\_input\_time = 300                       //服务器接收数据的时间限制

405 memory\_limit = 128M                        //内存容量限制

672 post\_max\_size = 32M                        //POST数据最大容量

878 date.timezone = Asia/Shanghai         //设置时区

:wq

]# systemctl restart php-fpm

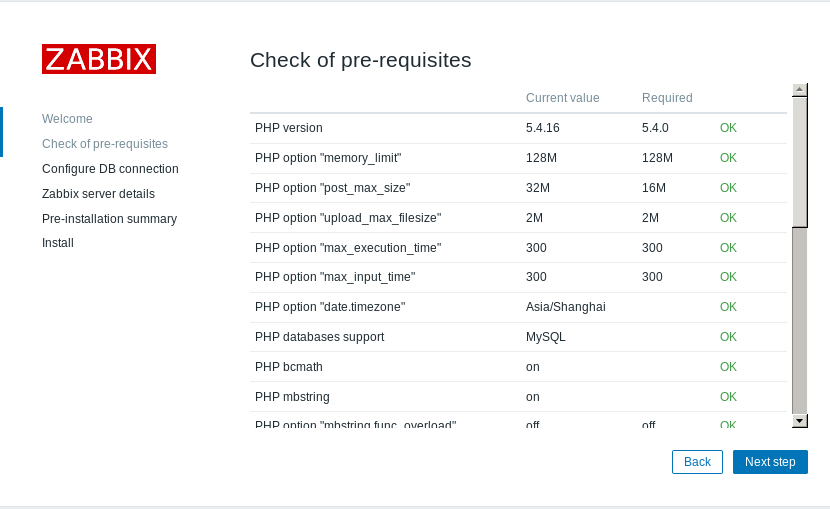
]# yum -y install google-noto-sans-simplified-chinese-fonts.noarch

访问进入zabbix server

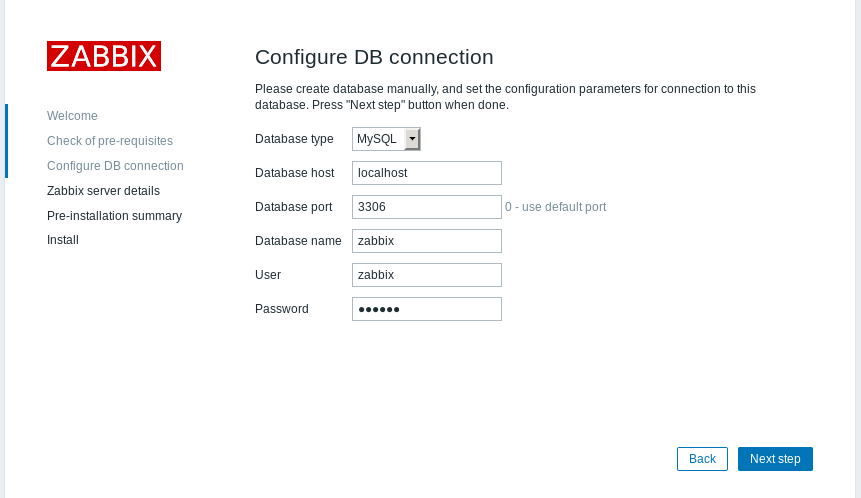
]# firefox [http://192.168.4.60/index.php](https://192.168.4.60/index.php)



1.点击 Next step

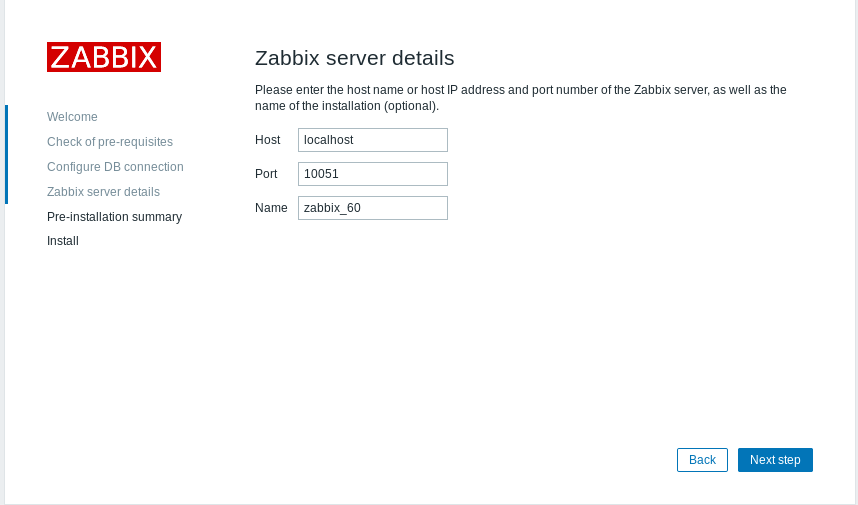


2.查看配置ok后 点击Next step

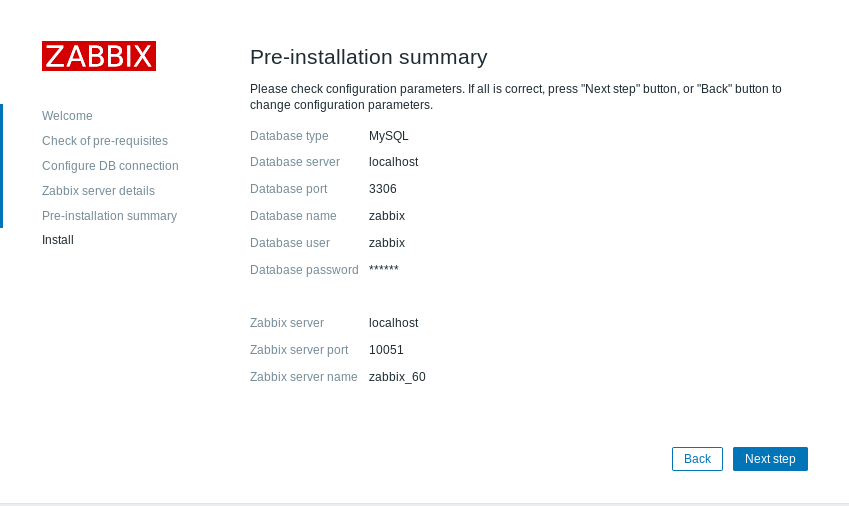


3.设置数据库端口号3306,以及在数据库里绑定zabbix数据的库名及授权的用户名及密码:

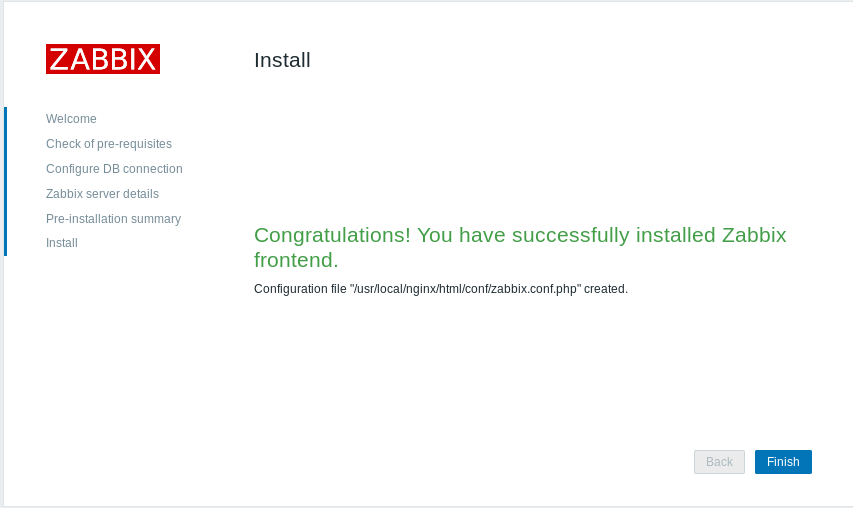
(mysql> grant all on zabbix.\* to zabbix@'localhost' identified by 'zabbix';)



4.设置服务器主机名zabbix\_60;

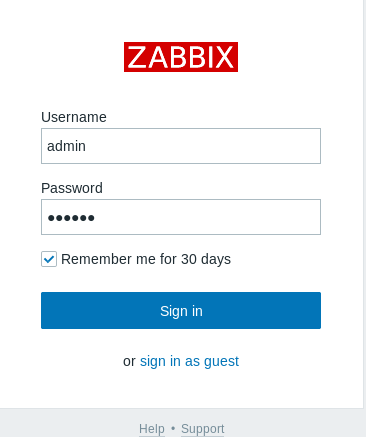
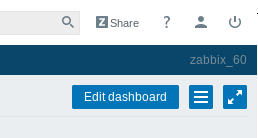


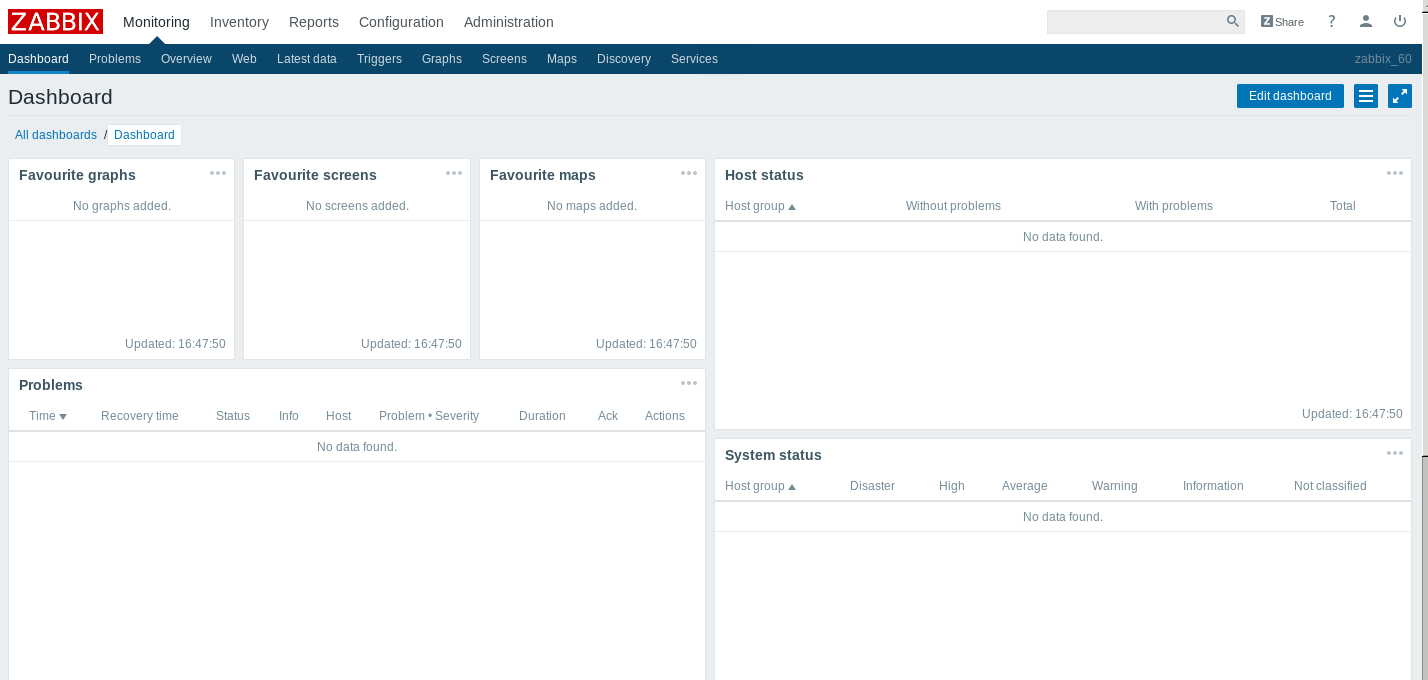
5.点击Nest step



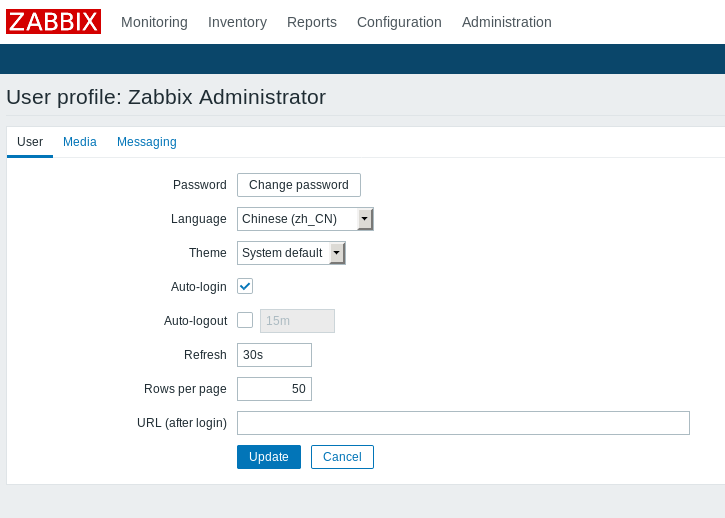
6.点击完成Finish

1. 登录用户默认为:admin 密码为:zabbix



8.点击角色设置中文选项



1. 完成设置.



部署docker容器管理系统:

首先关闭防火墙:

]# systemctl stop firewalld

]# systemctl stop iptable

生成秘钥对编辑主机名解析:

]# ssh-keygen -t rsa -b 2048 -f /root/.ssh/id\_rsa -N ' '

]# ssh-copy-id -i /root/.ssh/id\_rsa.pub [root@192.168.4.61](mailto:root@192.168.4.61)

]# ssh-copy-id -i /root/.ssh/id\_rsa.pub root@192.168.4.62

]#vim /etc/hosts

192.168.4.60 zabbix60

192.168.4.61 docker61

192.168.4.62 harbor62

:wq

]# rsync -av /etc/hosts root@192.168.4.61:/etc/hosts

]# rsync -av /etc/hosts root@192.168.4.62:/etc/hosts

根据docker镜像文件配置yum源仓库安装docker(docker-common-1.12.6-11.el7.x86\_64)

]# yum -y install docker

]# systemctl enable docker

]# systemctl start docker

]#ifconfig //查看有docker0 说明环境部署完成

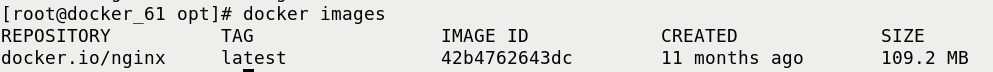
]#docker version //查看版本号

官方镜像仓库: <https://hub.docker.com>

Docker镜像使用,官方下载镜像tar包:

]# docker load -i nginx.tar //将tar包导入镜像;

]# docker images //查看容器镜像;



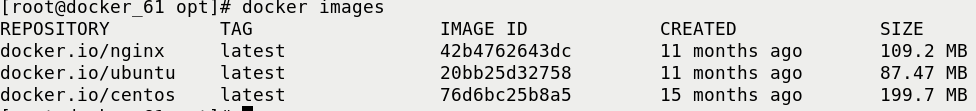
]# docker pull library/nginx //下载镜像;

]# docker push library/nginx //上传镜像;

]# docker search docker.io/buysbox //查找busybox镜像;

]# docker save docker.io/nginx:latest -o nginx.tar

//导出nginx镜像为nginx.tar



]# docker rmi docker.io/ubuntu //根据镜像仓库名删除镜像

]# docker rmi 76d6b //根据 image id删除镜像

部署harbor管理镜像仓库:

1.下载harbor软件包;

访问github官网下载离线包

网址:<https://github.com/goharbor/harbor/releases>

找到harbor-offline-installer-v1.8.0.tgz并下载.

2.下载harbor的启动工具docker-compose;

网址:[https://docs.docker.com/compose/install/#install-compose](https://docs.docker.com/compose/install/" \l "install-compose)

下载:docker-compose-Linux-x86\_64

1. 下载docker-ce;

网址:

https://download.docker.com/linux/centos/7/x86\_64/stable/Packages

下载:docker-ce-17.09.0.ce-1.el7.centos.x86\_64.rpm

1. 将下载软件包scp发送到harbor\_62:/opt目录下,并自定义释放目录;

]# mkdir /usr/local/harbor

]# tar -xf harbor-offline-installer-v1.8.0.tgz -C /usr/local/harbor

]# mv docker-compose-Linux-x86\_64 /usr/local/bin/docker-compose

]# chmod +x /usr/local/bin/docker-compose

]# yum -y install /opt/docker-ce-17.09.0.ce-1.el7.centos.x86\_64.rpm

]# systemctl enable docker

]# systemctl start docker

1. 修改harbor配置文件及安装;

]# cd /usr/local/harbor

]# vim harbor.yml

# DO NOT use localhost or 127.0.0.1, because Harbor needs to be accessed by external clients.

hostname: 192.168.4.62 //设置访问地址不允许写本机域名和127.0.0.1

# http related config

http:

# port for http, default is 80. If https enabled, this port will redirect to https port

port: 80 //遵循http协议访问端口默认为80

......

# Remember Change the admin password from UI after launching Harbor.

harbor\_admin\_password: harbor123456 //设置登录密码

# Harbor DB configuration

database:

# The password for the root user of Harbor DB. Change this before any production use.

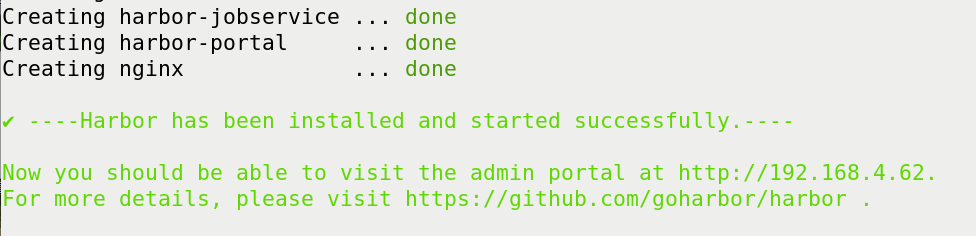
password: root123 //设置数据库root密码

...

:wq

]# ./prepare

]# ./install.sh

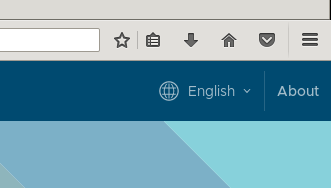


安装成功.

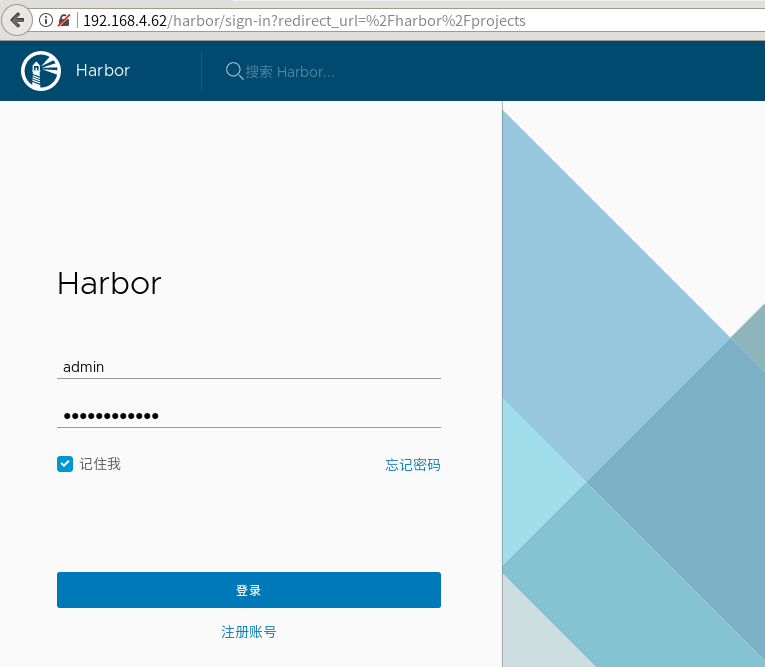
6.登录页面;

]# systemctl restart docker

]# firefox 192.168.4.62

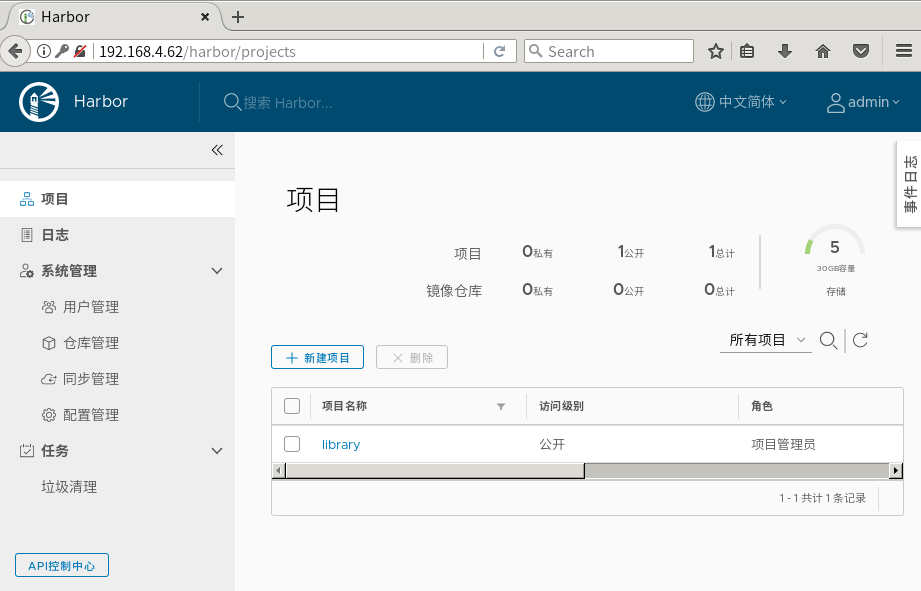


设置语言为中文;

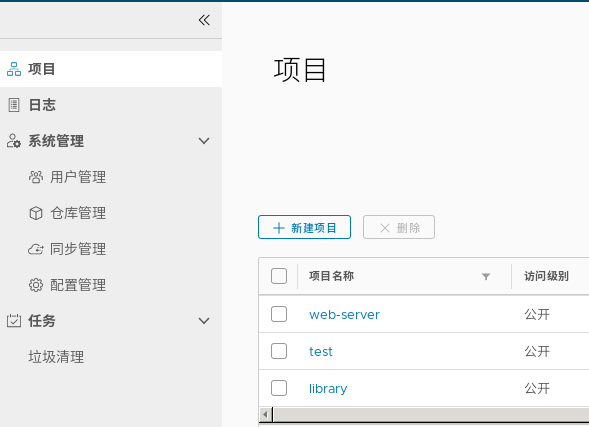


登录密码为配置为:harbor123456

进入页面:



创建项目: test web-server存取镜像



用docker\_61在harbor\_62镜像仓库的上传与下载镜像:

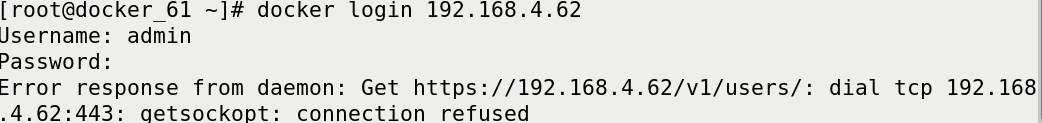
应用端: docker\_61 192.168.4.61

后端仓库: harbor\_62 192.168.4.62

在docker\_61上:

]# docker login 192.168.4.62 //dokcer连接harbor仓库;

如果harbor仓库没有申请生成CA安全证书,harbor仓库没有开启443网页h安全https配置项登录会报如下错误:(harbor默认信任https网页建立连接)



解决以上无法登录问题如下:

]# vim /lib/systemd/system/docker.service

在ExecStart= .... (最后添加) --insecure-registry=192.168.4.62

:wq

]# systemctl daemon-reload

]# systemctl restart docker

在harbor\_62上:

]# vim /etc/docker/daemon.json

{ "insecure-registries":["192.168.4.62"] }

:wq

//在文件尾行添加文本内容, 如果该文件不存在则新建并添加以上文本内容 ;(信任http网页访问与本机建立连接).

]# systemctl daemon-reload

]# systemctl restart docker

返回在docker\_61上:

]# docker login 192.168.4.62

Username: admin

Password: //密码为harbor123456

Login Succeeded //成功建立连接

]# docker images //查看已有的镜像



]# docker tag docker.io/nginx:latest 192.168.4.62/test/nginx:1.12.7

//tag 名称= 仓库地址/项目名称/镜像名称:标记(版本号)

]# docker push 192.168.4.62/test/nginx:1.12.7

//上传镜像到harbor仓库



镜像及标签;

]# docker pull 192.168.4.62/test/nginx:latest

//下载镜像到本地