DevOps – Automate Build

- Vikram SG (sg.vikram@gmail.com)

This project demonstrates the use of Jenkins to Automate the build and deployment. This also implements Elasticsearch, Logstash and Kibana for Monitoring

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Jenkins

Jenkins is a self-contained, open-source automation server which can be used to automate all sorts of tasks related to building, testing, and delivering or deploying software.

Jenkins can be installed through native system packages, Docker, or even run standalone by any machine with a Java Runtime Environment (JRE) installed.

Elastisearch

Elasticsearch is a distributed, RESTful search and analytics engine capable of addressing a growing number of use cases. As the heart of the Elastic Stack, it centrally stores your data for lightning-fast search, fine-tuned relevancy, and powerful analytics that scale with ease.

Logstash

Logstash is a free and open server-side data processing pipeline that ingests data from a multitude of sources, transforms it, and then sends it to your favorite "stash."

Kibana

Kibana is a free and open user interface that lets you visualize your Elasticsearch data and navigate the Elastic Stack. Do anything from tracking query load to understanding the way requests flow through your apps.

Filebeat

Whether you're collecting from security devices, cloud, containers, hosts, or OT, Filebeat helps you keep the simple things simple by offering a lightweight way to forward and centralize logs and files.

Customer Requirements

XYZ Technology Solutions hired you as a DevOps Engineer. The company is undergoing an infrastructural change regarding the tools used in the organization. The company decides to implement DevOps to develop and deliver the products. Since XYZ is an agile organization, they follow Scrum methodology to develop the projects incrementally. They decide to dockerize their applications so that they can deploy them on Kubernetes. Each application when deployed and exposed, will have a unique URL and port, using which we can access that application.

The application should have the following features:

- The application and its versions should be available on GitHub
- Commit the code multiple times and track their versions on GitHub
- Build the application in Docker, and host it in Docker Hub
- Deploy ELK stack on Docker and push application logs to it
- Automate Docker build and deployment using Jenkins pipeline code

Following tools should be used:

- Docker
- Docker Compose
- Elasticsearch
- Logstash
- Kibana
- Spring Boot application

Contents

Project Files

The project files are located on the following GitHub link:

https://github.com/sgvikramsgv/sportyshoe.git

Project files descriptions

File	Type	Description
mysql	Folder	Folder contains MySQL Server script files to initialize the DB and inset sample data
src	Folder	Source files for the SportyShoe Sprint Boot Application
docker-compose.yml	YAML config file	Docker compose file to initialize the ELK stack and MySQL DB containers
Dockerfile	Dockerfile	Dockerfile to create image of the Spring Boot Application
elasticsearch.yml	YAML config file	Elasticsearch configuration file
filebeat.yml	YAML config file	Filebeat configuration file
kibana.yml	YAML config file	Kibana configuration file
logstash.conf	Config File	Logstash Pipeline configuration file
logstash.yml	YAML config file	Logstash Config file

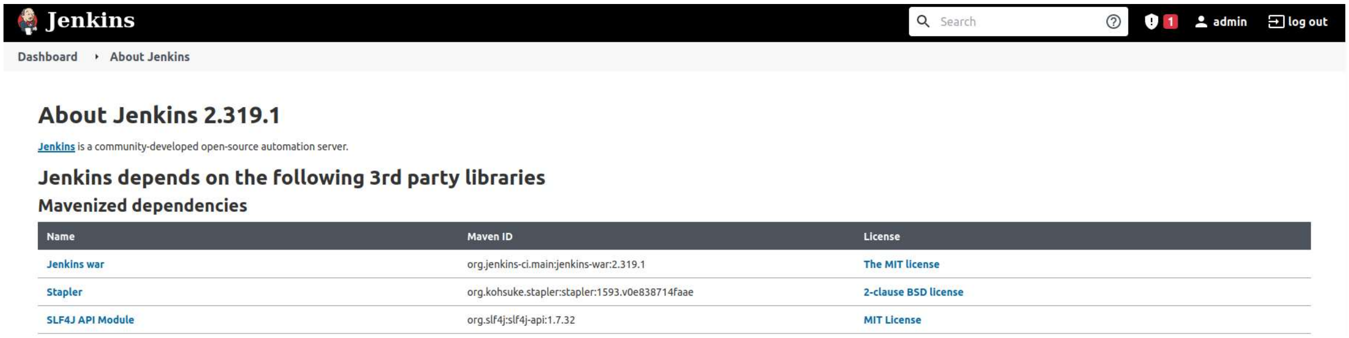
Setting up the Environment

Pre-requisites

- Install a Ubuntu or CentOS server.
- Install following
    - Jenkins
        - ***sudo apt install Jenkins***
    - Maven
        - ***sudo apt install maven***
    - Git
        - ***sudo apt install git***
    - Docker
        - ***curl -fsSL https://get.docker.com -o get-docker.sh***
        - ***sudo sh get-docker.sh***
    - Docker-compose
        - ***sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose***
        - ***sudo chmod +x /usr/local/bin/docker-compose***

verify the installations

Jenkins version (obtained from the Jenkins webpage)



About Jenkins 2.319.1

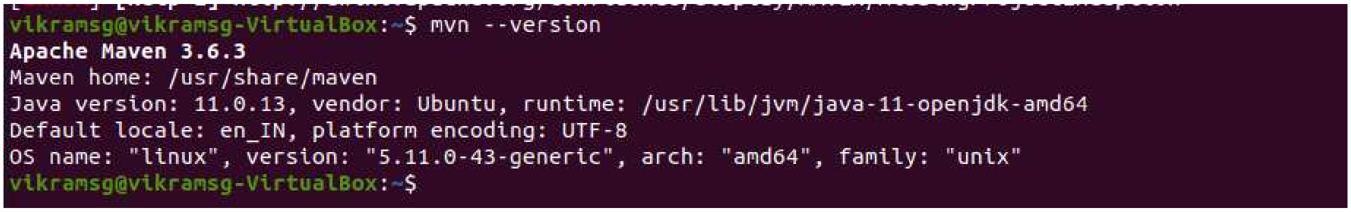
Jenkins is a community-developed open-source automation server.

Jenkins depends on the following 3rd party libraries

Mavenized dependencies

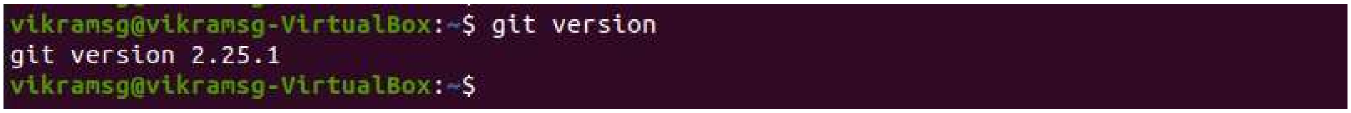
Name	Maven ID	License
Jenkins war	org.jenkins-ci.main:jenkins-war:2.319.1	The MIT license
Stapler	org.kohsuke.stapler:stapler:1593.v0e838714faae	2-clause BSD license
SLF4J API Module	org.slf4j:slf4j-api:1.7.32	MIT License

Maven version (obtained from command line)



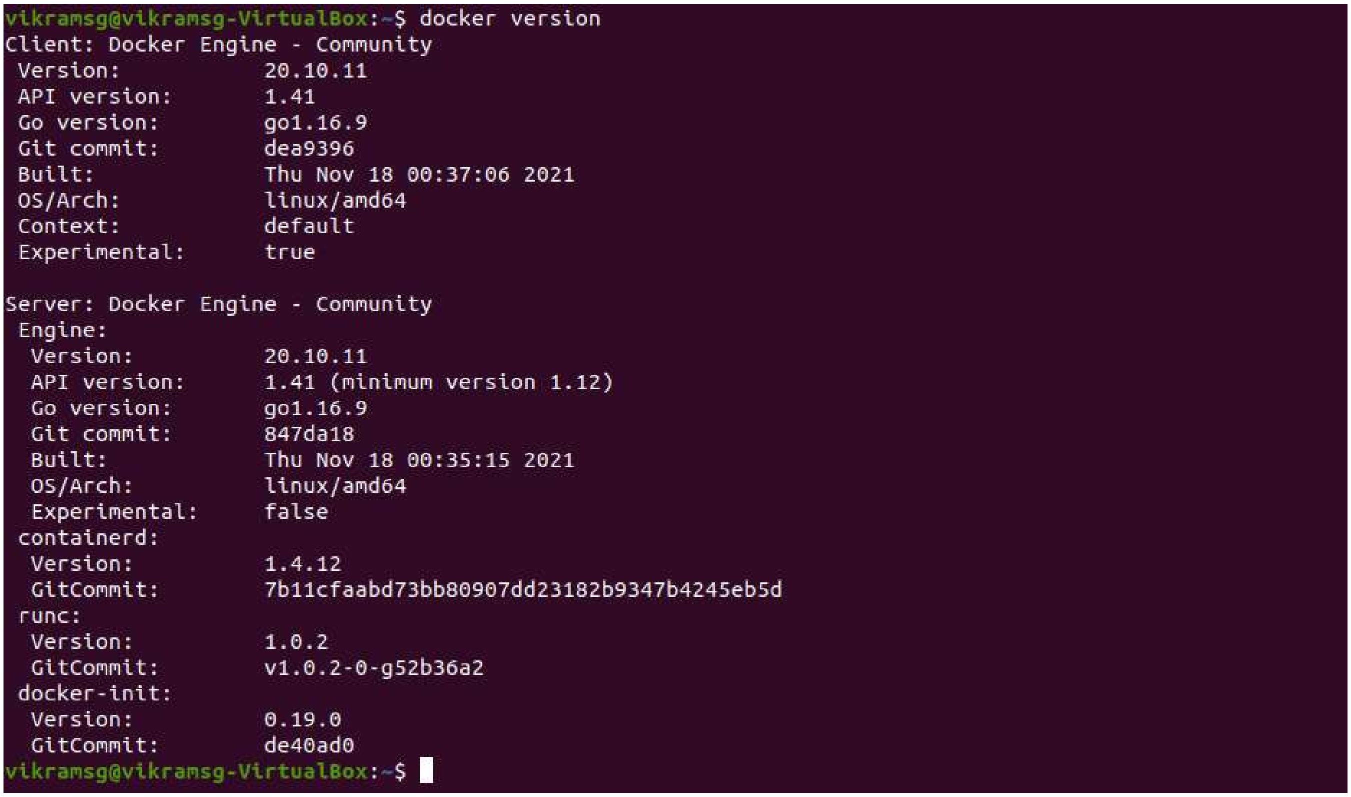
```
vikramsg@vikramsg-VirtualBox:~$ mvn --version
Apache Maven 3.6.3
Maven home: /usr/share/maven
Java version: 11.0.13, vendor: Ubuntu, runtime: /usr/lib/jvm/java-11-openjdk-amd64
Default locale: en_IN, platform encoding: UTF-8
OS name: "linux", version: "5.11.0-43-generic", arch: "amd64", family: "unix"
vikramsg@vikramsg-VirtualBox:~$
```

Git version (obtained from command line)



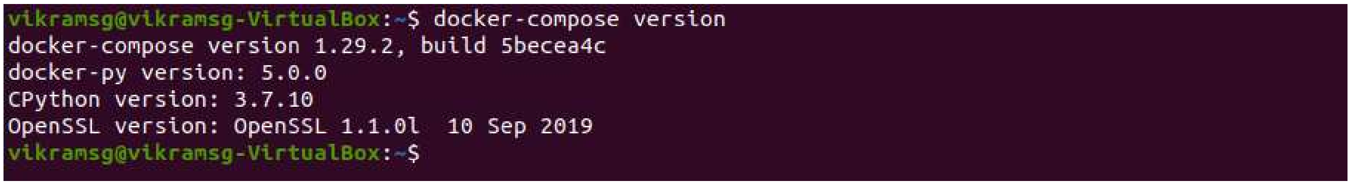
```
vikramsg@vikramsg-VirtualBox:~$ git version
git version 2.25.1
vikramsg@vikramsg-VirtualBox:~$
```

Docker Version (obtained from command line)



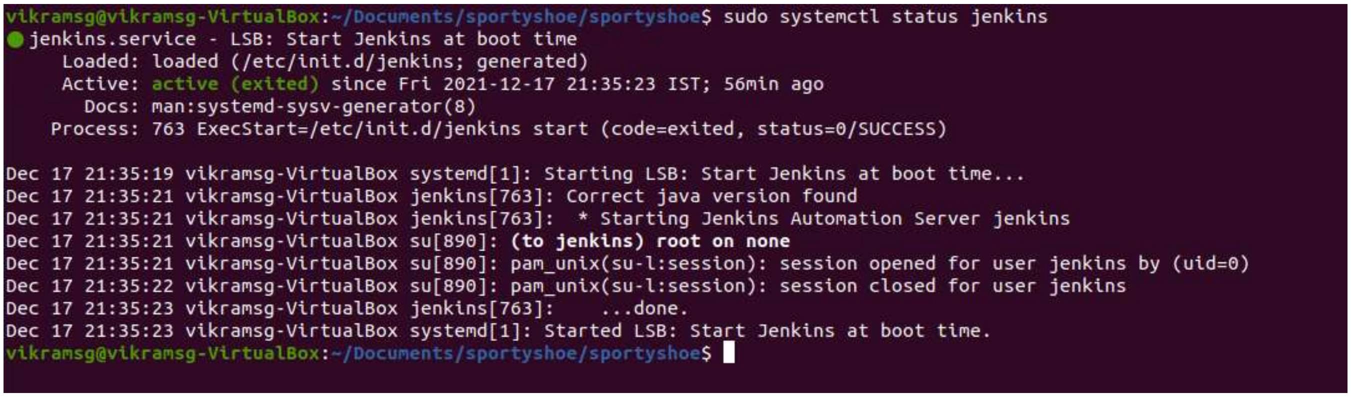
```
vikramsg@vikramsg-VirtualBox:~$ docker version
Client: Docker Engine - Community
 Version:           20.10.11
 API version:       1.41
 Go version:        go1.16.9
 Git commit:        dea9396
 Built:             Thu Nov 18 00:37:06 2021
 OS/Arch:           linux/amd64
 Context:           default
 Experimental:      true

Server: Docker Engine - Community
 Engine:
  Version:          20.10.11
  API version:      1.41 (minimum version 1.12)
  Go version:       go1.16.9
  Git commit:       847da18
  Built:            Thu Nov 18 00:35:15 2021
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.4.12
  GitCommit:        7b11cfaabd73bb80907dd23182b9347b4245eb5d
 runc:
  Version:          1.0.2
  GitCommit:        v1.0.2-0-g52b36a2
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
vikramsg@vikramsg-VirtualBox:~$
```

Docker Compose Version (obtained from command line)

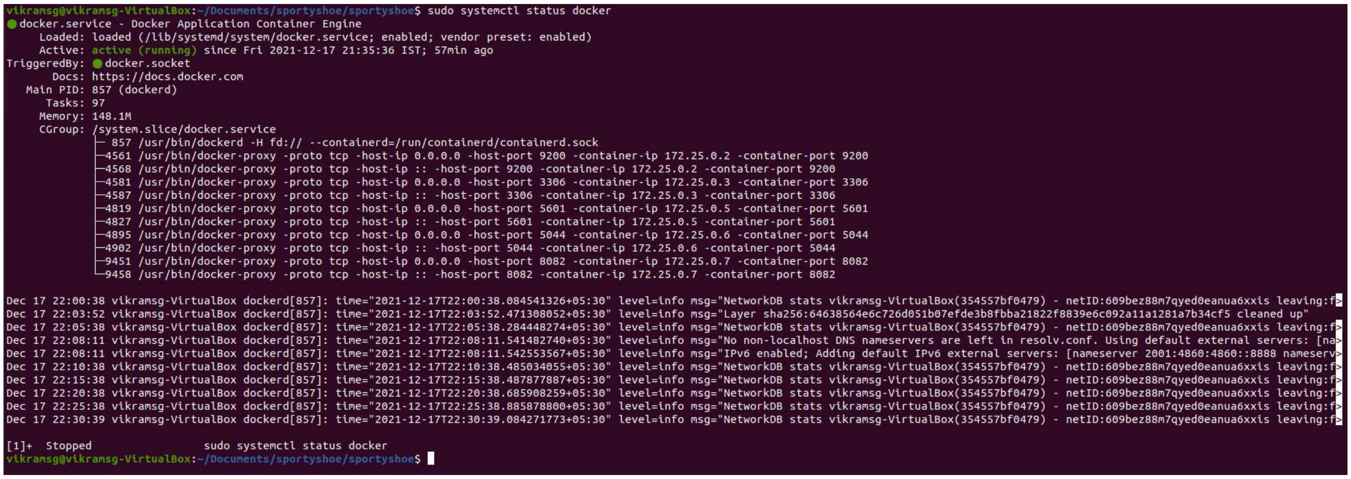


```
vikramsg@vikramsg-VirtualBox:~$ docker-compose version
docker-compose version 1.29.2, build 5becea4c
docker-py version: 5.0.0
CPython version: 3.7.10
OpenSSL version: OpenSSL 1.1.0l  10 Sep 2019
vikramsg@vikramsg-VirtualBox:~$
```

Check the Services status of Jenkins and Docker



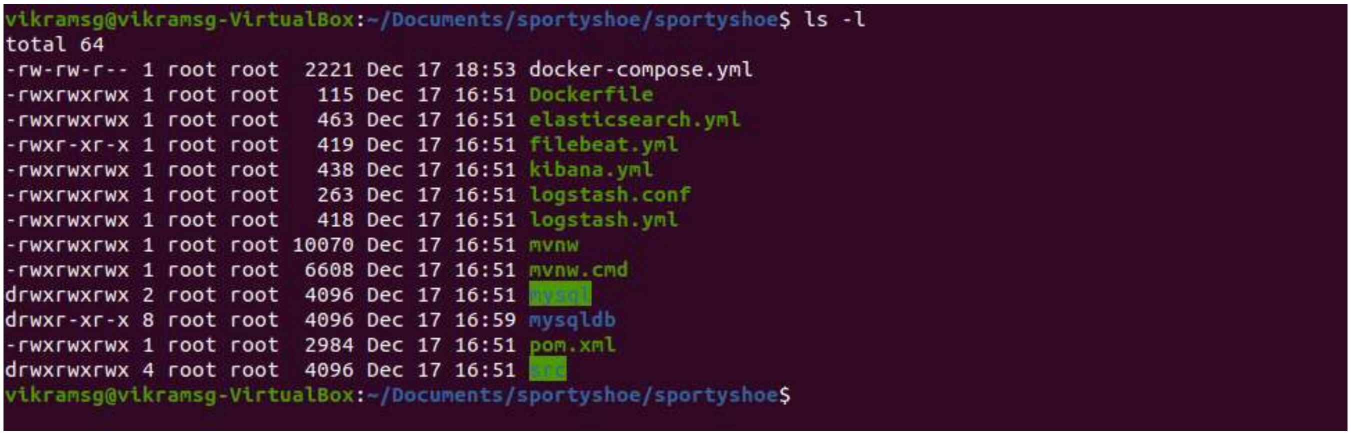
```
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ sudo systemctl status jenkins
● jenkins.service - LSB: Start Jenkins at boot time
     Loaded: loaded (/etc/init.d/jenkins; generated)
     Active: active (exited) since Fri 2021-12-17 21:35:23 IST; 56min ago
       Docs: man:systemd-sysv-generator(8)
    Process: 763 ExecStart=/etc/init.d/jenkins start (code=exited, status=0/SUCCESS)

Dec 17 21:35:19 vikramsg-VirtualBox systemd[1]: Starting LSB: Start Jenkins at boot time...
Dec 17 21:35:21 vikramsg-VirtualBox jenkins[763]: Correct java version found
Dec 17 21:35:21 vikramsg-VirtualBox jenkins[763]:  * Starting Jenkins Automation Server jenkins
Dec 17 21:35:21 vikramsg-VirtualBox su[890]: (to jenkins) root on none
Dec 17 21:35:21 vikramsg-VirtualBox su[890]: pam_unix(su-l:session): session opened for user jenkins by (uid=0)
Dec 17 21:35:22 vikramsg-VirtualBox su[890]: pam_unix(su-l:session): session closed for user jenkins
Dec 17 21:35:23 vikramsg-VirtualBox jenkins[763]:    ...done.
Dec 17 21:35:23 vikramsg-VirtualBox systemd[1]: Started LSB: Start Jenkins at boot time.
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ █
```



```
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
     Active: active (running) since Fri 2021-12-17 21:35:36 IST; 57min ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 857 (dockerd)
      Tasks: 97
     Memory: 148.1M
     CGroup: /system.slice/docker.service
             ├─ 857 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock
             ├─4561 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 9200 -container-ip 172.25.0.2 -container-port 9200
             ├─4568 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 9200 -container-ip 172.25.0.2 -container-port 9200
             ├─4581 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 3306 -container-ip 172.25.0.3 -container-port 3306
             ├─4587 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 3306 -container-ip 172.25.0.3 -container-port 3306
             ├─4819 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 5601 -container-ip 172.25.0.5 -container-port 5601
             ├─4827 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 5601 -container-ip 172.25.0.5 -container-port 5601
             ├─4895 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 5044 -container-ip 172.25.0.6 -container-port 5044
             ├─4902 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 5044 -container-ip 172.25.0.6 -container-port 5044
             ├─9451 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 8082 -container-ip 172.25.0.7 -container-port 8082
             └─9458 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 8082 -container-ip 172.25.0.7 -container-port 8082

Dec 17 22:00:38 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:00:38.084541326+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>
Dec 17 22:03:52 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:03:52.471308052+05:30" level=info msg="Layer sha256:64638564e6c726d051b07efde3b8fbba21822f8839e6c092a11a1281a7b34cf5 cleaned up"
Dec 17 22:05:38 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:05:38.284448274+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>
Dec 17 22:08:11 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:08:11.541482740+05:30" level=info msg="No non-localhost DNS nameservers are left in resolv.conf. Using default external servers: [na>
Dec 17 22:08:11 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:08:11.542553567+05:30" level=info msg="IPv6 enabled; Adding default IPv6 external servers: [nameserver 2001:4860:4860::8888 nameserv>
Dec 17 22:10:38 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:10:38.485034055+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>
Dec 17 22:15:38 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:15:38.487877887+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>
Dec 17 22:20:38 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:20:38.685908259+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>
Dec 17 22:25:38 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:25:38.885878800+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>
Dec 17 22:30:39 vikramsg-VirtualBox dockerd[857]: time="2021-12-17T22:30:39.084271773+05:30" level=info msg="NetworkDB stats vikramsg-VirtualBox(354557bf0479) - netID:609bez88m7qyed0eanua6xxis leaving:f>

[1]+  Stopped                 sudo systemctl status docker
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ █
```

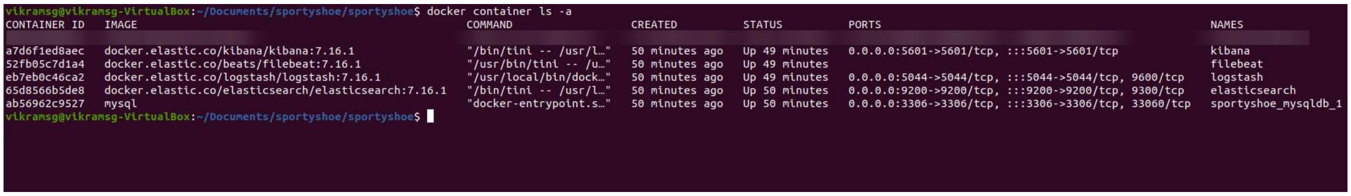
Steps to start the environment

1. Make sure that the /var/run/docker.lock has the read-write permission. This is required for deploying the Spring Boot application to local docker container.
    - ***chmod 777 /var/run/docker.lock***
2. Download the project from GitHub using following command:
    - ***git clone https://github.com/sgvikramsgv/sportyshoe.git***
3. change directory into the project folder



```
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ ls -l
total 64
-rw-rw-r-- 1 root root  2221 Dec 17 18:53 docker-compose.yml
-rwxrwxrwx 1 root root   115 Dec 17 16:51 Dockerfile
-rwxrwxrwx 1 root root   463 Dec 17 16:51 elasticsearch.yml
-rwxr-xr-x 1 root root   419 Dec 17 16:51 filebeat.yml
-rwxrwxrwx 1 root root   438 Dec 17 16:51 kibana.yml
-rwxrwxrwx 1 root root   263 Dec 17 16:51 logstash.conf
-rwxrwxrwx 1 root root   418 Dec 17 16:51 logstash.yml
-rwxrwxrwx 1 root root 10070 Dec 17 16:51 mvnw
-rwxrwxrwx 1 root root  6608 Dec 17 16:51 mvnw.cmd
drwxrwxrwx 2 root root  4096 Dec 17 16:51 mysql
drwxr-xr-x 8 root root  4096 Dec 17 16:59 mysqldb
-rwxrwxrwx 1 root root  2984 Dec 17 16:51 pom.xml
drwxrwxrwx 4 root root  4096 Dec 17 16:51 src
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$
```

4. edit the file permission for filebeat.yml file. This is required by Filebeat container to set the property file.
    - ***chmod go-w filebeat.yml***
5. Setup the ELK stack and MySQL DB using following command
    - ***docker-compose up***
6. Wait for the containers to setup and start.
7. Check the containers status once they are up using following command:
    - docker container ls -a

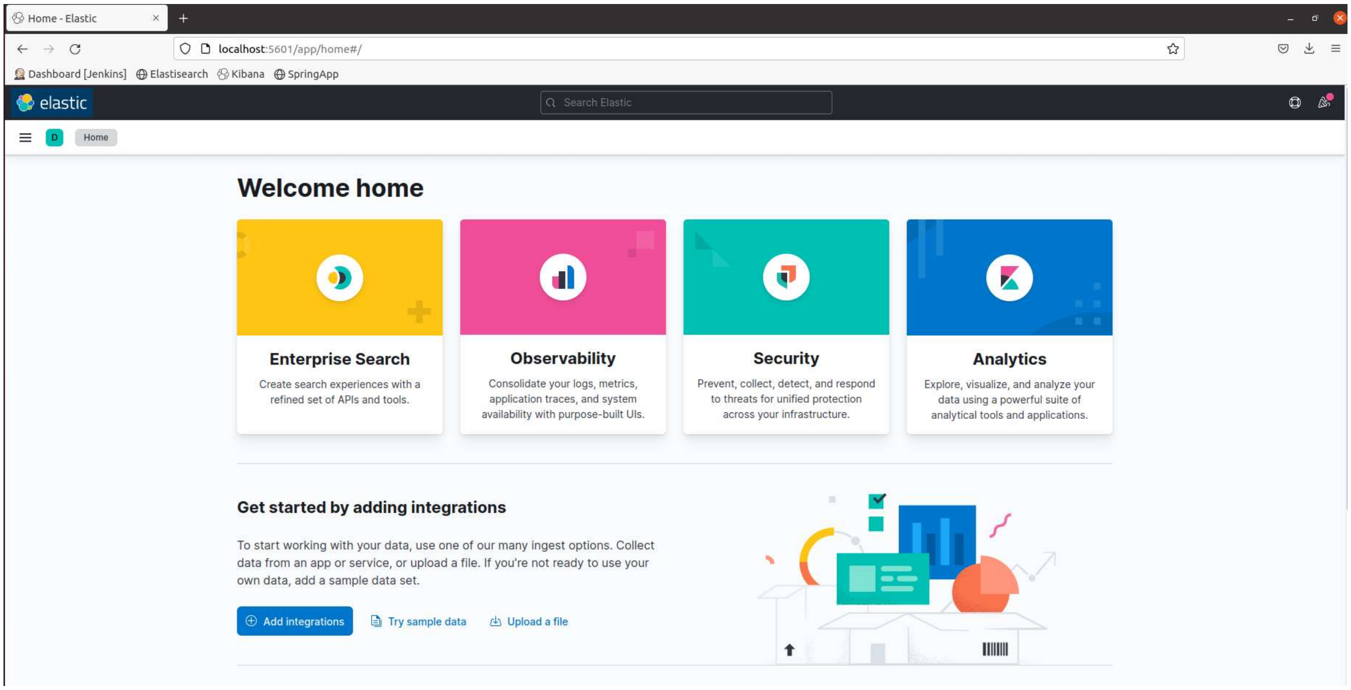


```
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ docker container ls -a
CONTAINER ID   IMAGE                                                  COMMAND                  CREATED          STATUS          PORTS                                                  NAMES

a7d6f1ed8aec   docker.elastic.co/kibana/kibana:7.16.1                 "/bin/tini -- /usr/l…"   50 minutes ago   Up 49 minutes   0.0.0.0:5601->5601/tcp, :::5601->5601/tcp              kibana
52fb05c7d1a4   docker.elastic.co/beats/filebeat:7.16.1                "/usr/bin/tini -- /u…"   50 minutes ago   Up 49 minutes                                                          filebeat
eb7eb0c46ca2   docker.elastic.co/logstash/logstash:7.16.1             "/usr/local/bin/dock…"   50 minutes ago   Up 49 minutes   0.0.0.0:5044->5044/tcp, :::5044->5044/tcp, 9600/tcp    logstash
65d8566b5de8   docker.elastic.co/elasticsearch/elasticsearch:7.16.1   "/bin/tini -- /usr/l…"   50 minutes ago   Up 50 minutes   0.0.0.0:9200->9200/tcp, :::9200->9200/tcp, 9300/tcp    elasticsearch
ab56962c9527   mysql                                                  "docker-entrypoint.s…"   50 minutes ago   Up 50 minutes   0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp   sportyshoe_mysqldb_1
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ 
```

8. Once all the services are up we can proceed next to setup ELK stack for monitoring

Setup ELK Stack for Monitoring

1. Open a web browser and open the URL http://localhost:9200



Welcome home

Enterprise Search: Create search experiences with a refined set of APIs and tools.

Observability: Consolidate your logs, metrics, application traces, and system availability with purpose-built UIs.

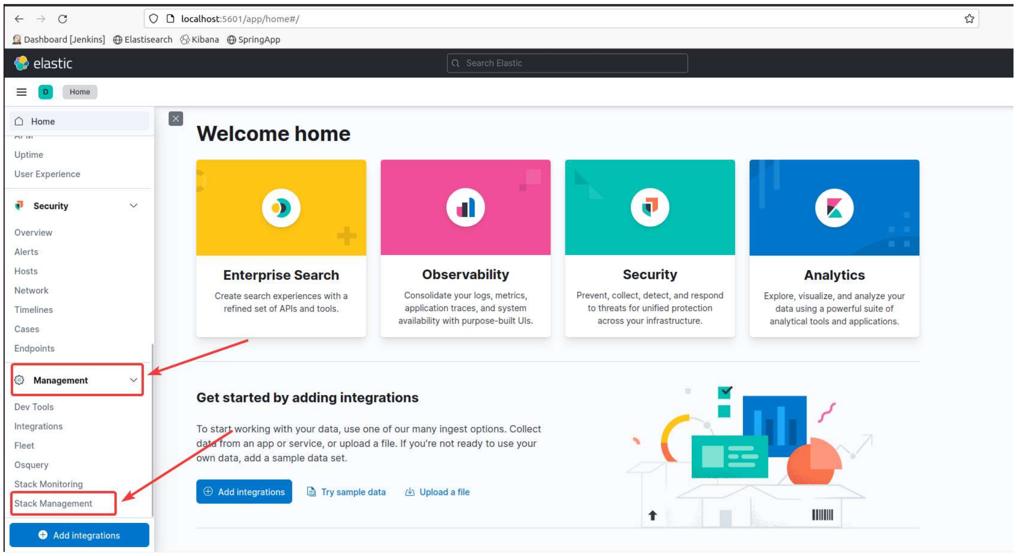
Security: Prevent, collect, detect, and respond to threats for unified protection across your infrastructure.

Analytics: Explore, visualize, and analyze your data using a powerful suite of analytical tools and applications.

Get started by adding integrations

To start working with your data, use one of our many ingest options. Collect data from an app or service, or upload a file. If you're not ready to use your own data, add a sample data set.

2. We will need to make sure that we have the Indexed data coming from Filebeat to Logstash. From Menu (hamburger icon on top left), select "Stack Management" under "Management" section.



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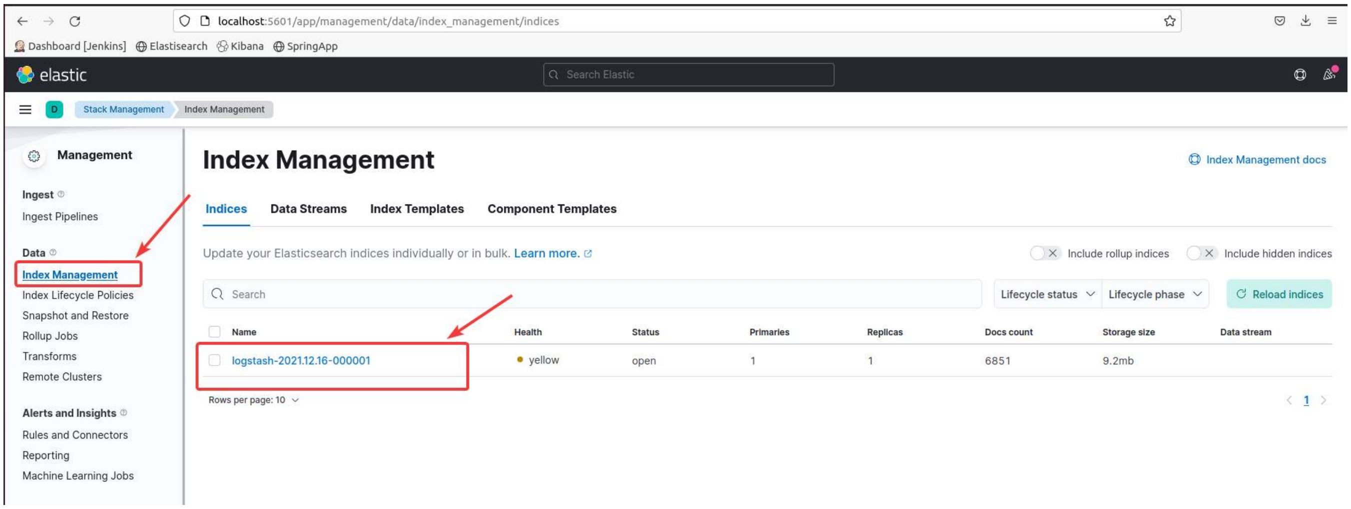
To start working with your data, use one of our many ingest options. Collect data from an app or service, or upload a file. If you're not ready to use your own data, add a sample data set.

3. Click on "Index Management" and check if the Logstash Indices are shown.

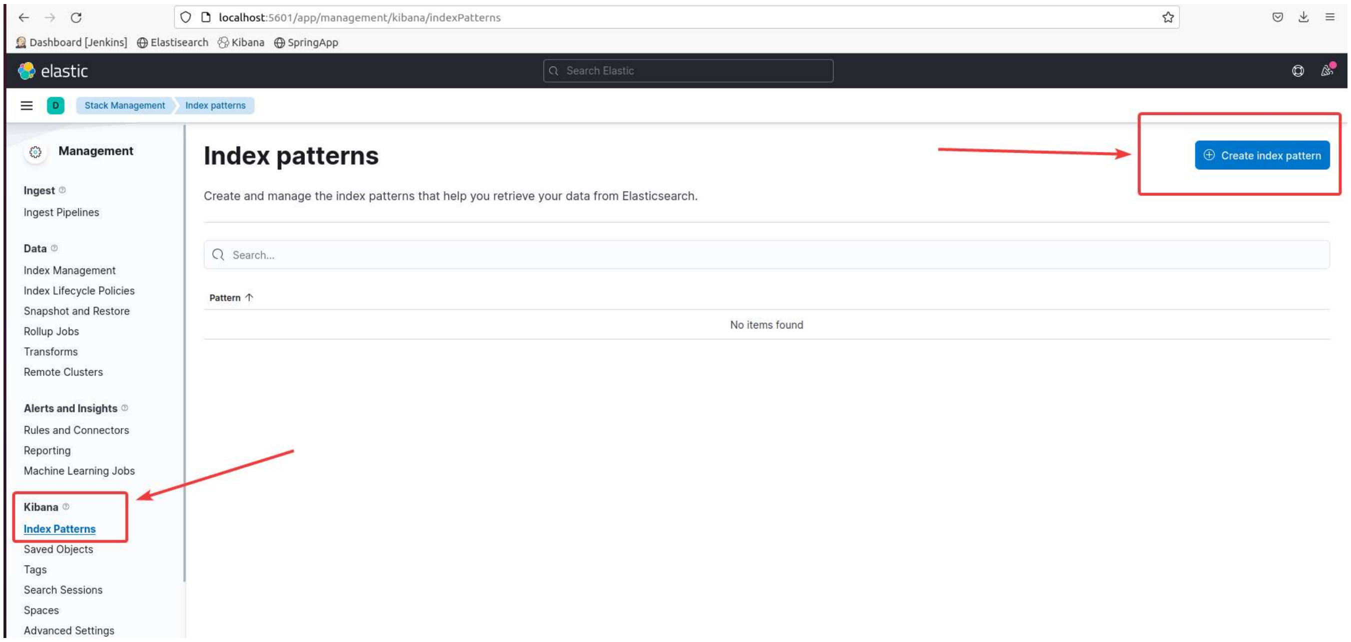


Index Management

Update your Elasticsearch indices individually or in bulk. Learn more.

Name	Health	Status	Primaries	Replicas	Docs count	Storage size	Data stream
logstash-2021.12.16-000001	● yellow	open	1	1	6851	9.2mb	

4. Now we create an Index so that we can start seeing the data in "Discover" page. Click on "Index Pattern" and click on "Create index pattern"

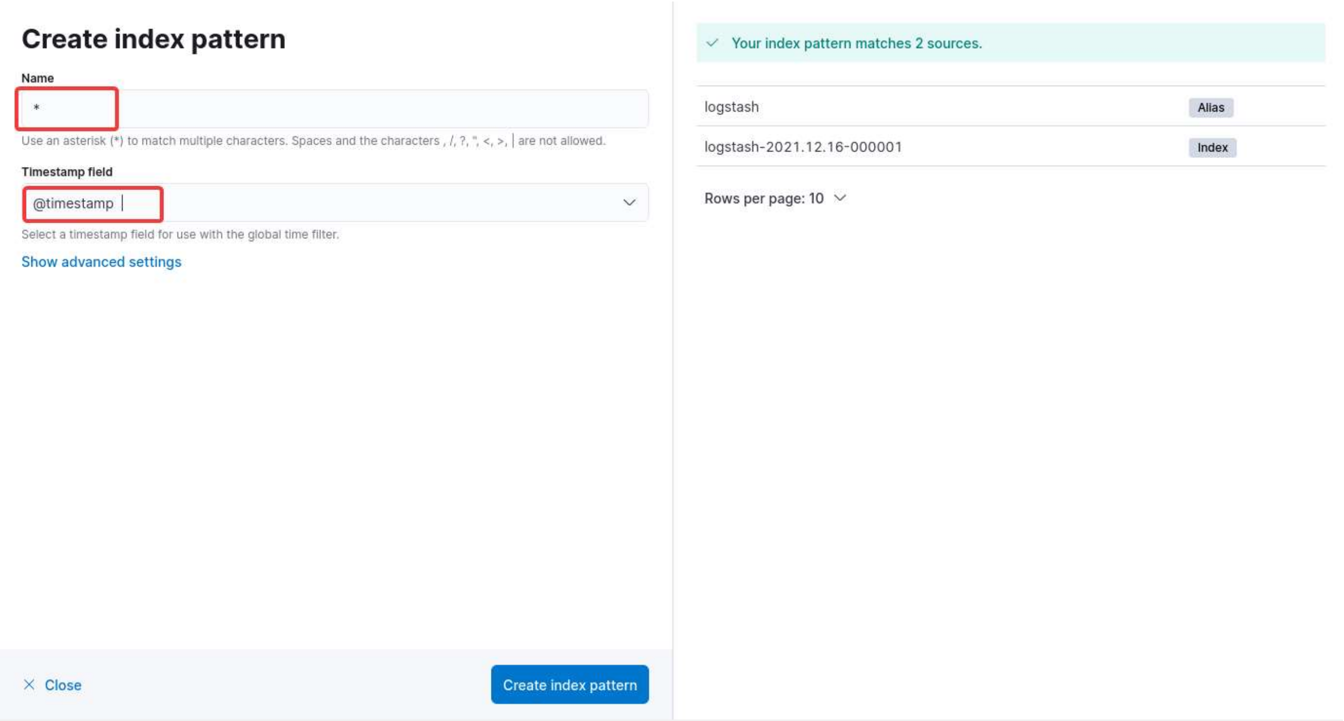


Index patterns

Create and manage the index patterns that help you retrieve your data from Elasticsearch.

Pattern ↑
No items found

5. Enter "*" in Name field and select "@timestamp" in Timestamp Field and click on "Create Index pattern"



Create index pattern

Name: *

Use an asterisk (*) to match multiple characters. Spaces and the characters , /, ?, ", <, >, | are not allowed.

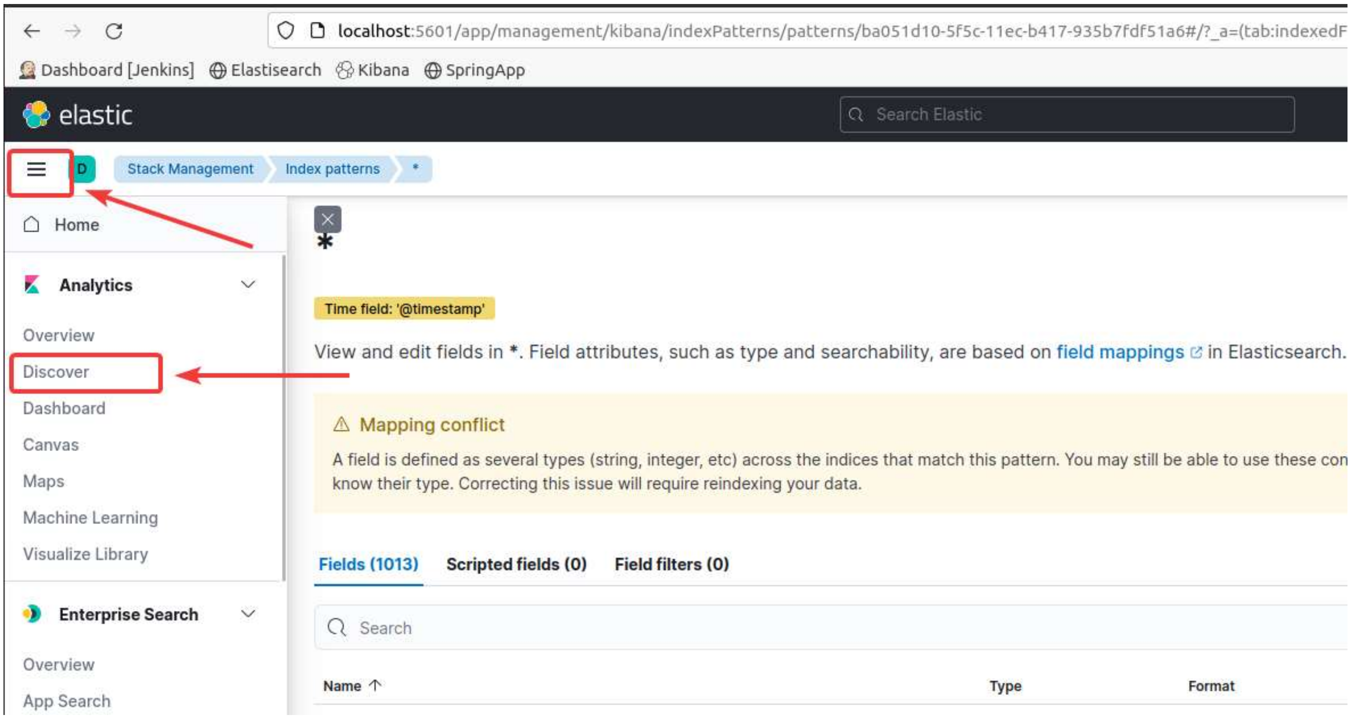
Timestamp field: @timestamp

Select a timestamp field for use with the global time filter.

Your index pattern matches 2 sources.

logstash	Alias
logstash-2021.12.16-000001	Index

6. Now we can go back to "Discover" page and should start seeing the log data.



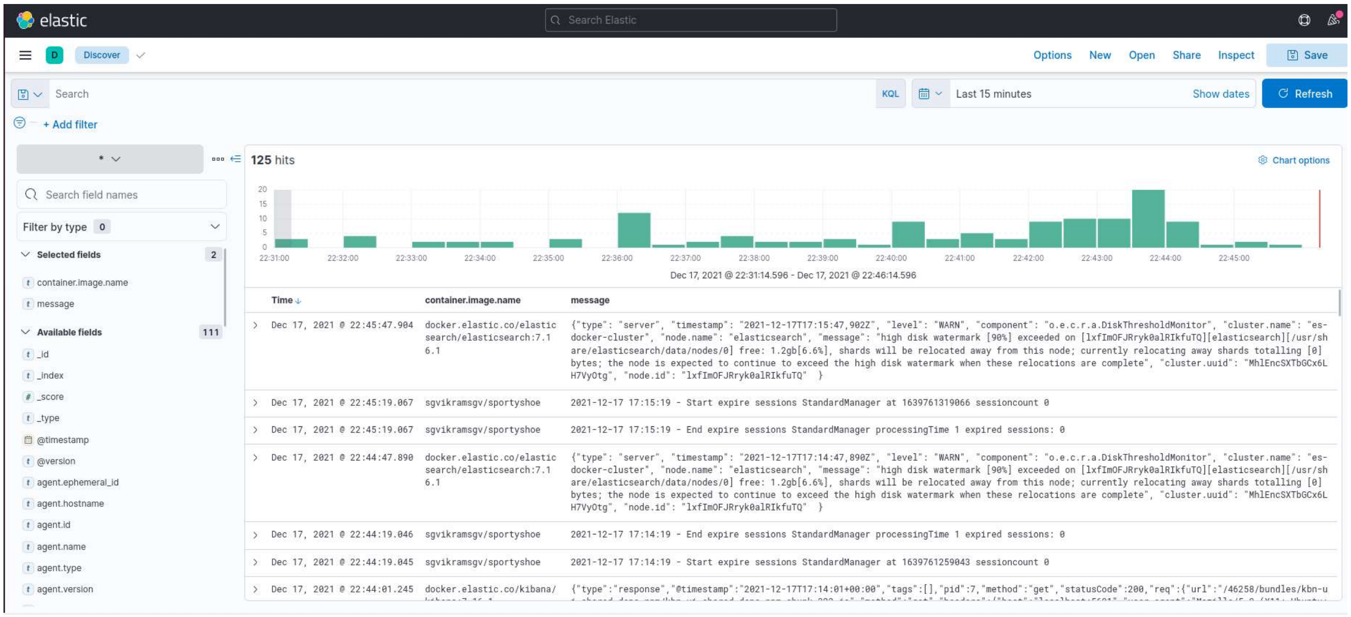
localhost:5601/app/management/kibana/indexPatterns/patterns/ba051d10-5f5c-11ec-b417-935b7fdf51a6#/?_a=(tab:indexedF

Time field: '@timestamp'

View and edit fields in *. Field attributes, such as type and searchability, are based on field mappings in Elasticsearch.

Mapping conflict

A field is defined as several types (string, integer, etc) across the indices that match this pattern. You may still be able to use these con know their type. Correcting this issue will require reindexing your data.

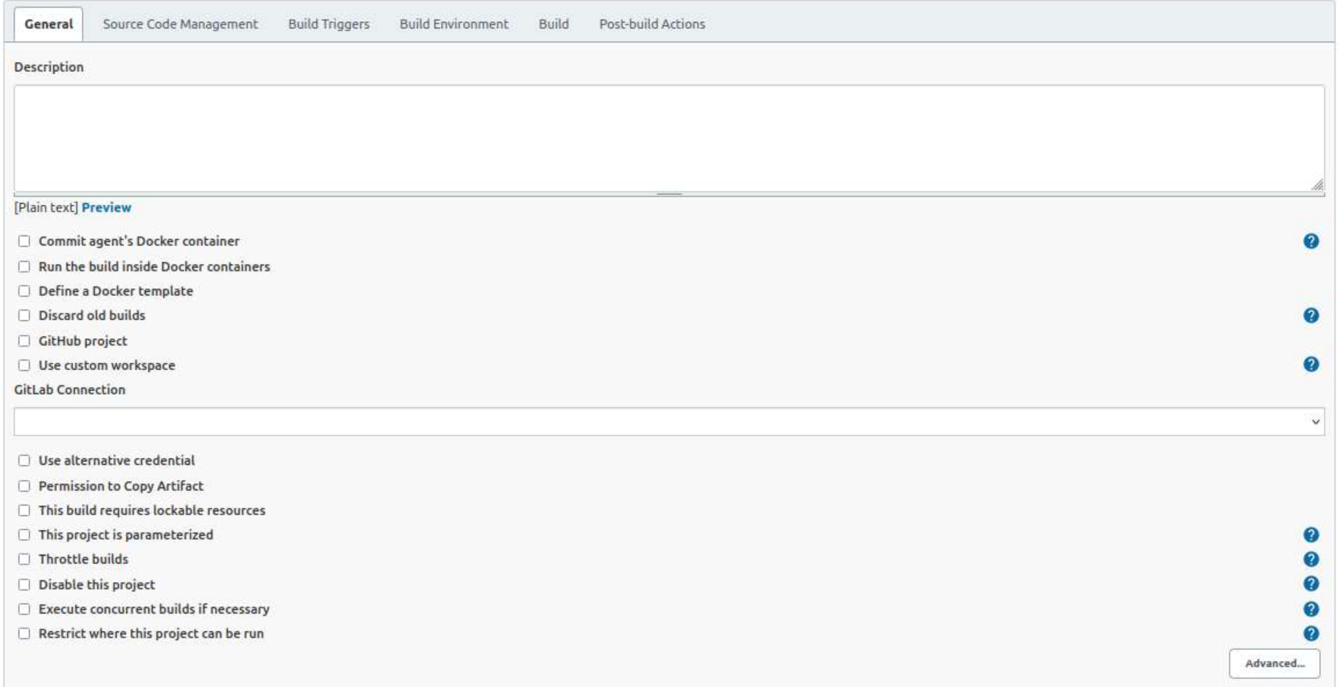


Time	container.image.name	message
Dec 17, 2021 @ 22:45:47.904	docker.elastic.co/elasticsearch/elasticsearch:7.16.1	{"type": "server", "timestamp": "2021-12-17T17:15:47,902Z", "level": "WARN", "component": "o.e.c.r.a.DiskThresholdMonitor", "cluster.name": "es-docker-cluster", "node.name": "elasticsearch", "message": "high disk watermark [90%] exceeded on [lxfImOFJRryk0alRIkfuTQ][elasticsearch][/usr/share/elasticsearch/data/nodes/0] free: 1.2gb[6.6%], shards will be relocated away from this node; currently relocating away shards totalling [0] bytes; the node is expected to continue to exceed the high disk watermark when these relocations are complete", "cluster.uuid": "MhlEncSXTbGCx6LH7VyOtg", "node.id": "lxfImOFJRryk0alRIkfuTQ" }
Dec 17, 2021 @ 22:45:19.067	sgvikramsgv/sportyshoe	2021-12-17 17:15:19 - Start expire sessions StandardManager at 1639761319066 sessioncount 0
Dec 17, 2021 @ 22:45:19.067	sgvikramsgv/sportyshoe	2021-12-17 17:15:19 - End expire sessions StandardManager processingTime 1 expired sessions: 0
Dec 17, 2021 @ 22:44:47.890	docker.elastic.co/elasticsearch/elasticsearch:7.16.1	{"type": "server", "timestamp": "2021-12-17T17:14:47,890Z", "level": "WARN", "component": "o.e.c.r.a.DiskThresholdMonitor", "cluster.name": "es-docker-cluster", "node.name": "elasticsearch", "message": "high disk watermark [90%] exceeded on [lxfImOFJRryk0alRIkfuTQ][elasticsearch][/usr/share/elasticsearch/data/nodes/0] free: 1.2gb[6.6%], shards will be relocated away from this node; currently relocating away shards totalling [0] bytes; the node is expected to continue to exceed the high disk watermark when these relocations are complete", "cluster.uuid": "MhlEncSXTbGCx6LH7VyOtg", "node.id": "lxfImOFJRryk0alRIkfuTQ" }
Dec 17, 2021 @ 22:44:19.046	sgvikramsgv/sportyshoe	2021-12-17 17:14:19 - End expire sessions StandardManager processingTime 1 expired sessions: 0
Dec 17, 2021 @ 22:44:19.045	sgvikramsgv/sportyshoe	2021-12-17 17:14:19 - Start expire sessions StandardManager at 1639761259043 sessioncount 0
Dec 17, 2021 @ 22:44:01.245	docker.elastic.co/kibana/	{"type":"response","@timestamp":"2021-12-17T17:14:01+00:00","tags":[],"pid":7,"method":"get","statusCode":200,"req":{"url":"/46258/bundles/kbn-u

Setup Jenkins Job for Build and Deploy to Docker

1. Launch Jenkins webpage http://localhost:8080
2. Create a Job using below configuration details:

Section	Configuration Item	Value
Source Code Management	Repository URL	https://github.com/sgvikramsgv/sportyshoe.git
Branches to build	Branch Specifier	*/main
Build	Execute Shell Command	mvn package
Docker Build and Publish	Repositor Name	sgvikramsgv/sportyshoe
Docker Build and Publish	Docker Host URI	unix:///var/run/docker.sock
Docker Build and Publish	Execute Shell Command	docker container run -d -p 8082:8082 --env MYSQL_HOST=mysqldb --network=sportyshoe_elastic sgvikramsgv/sportyshoe



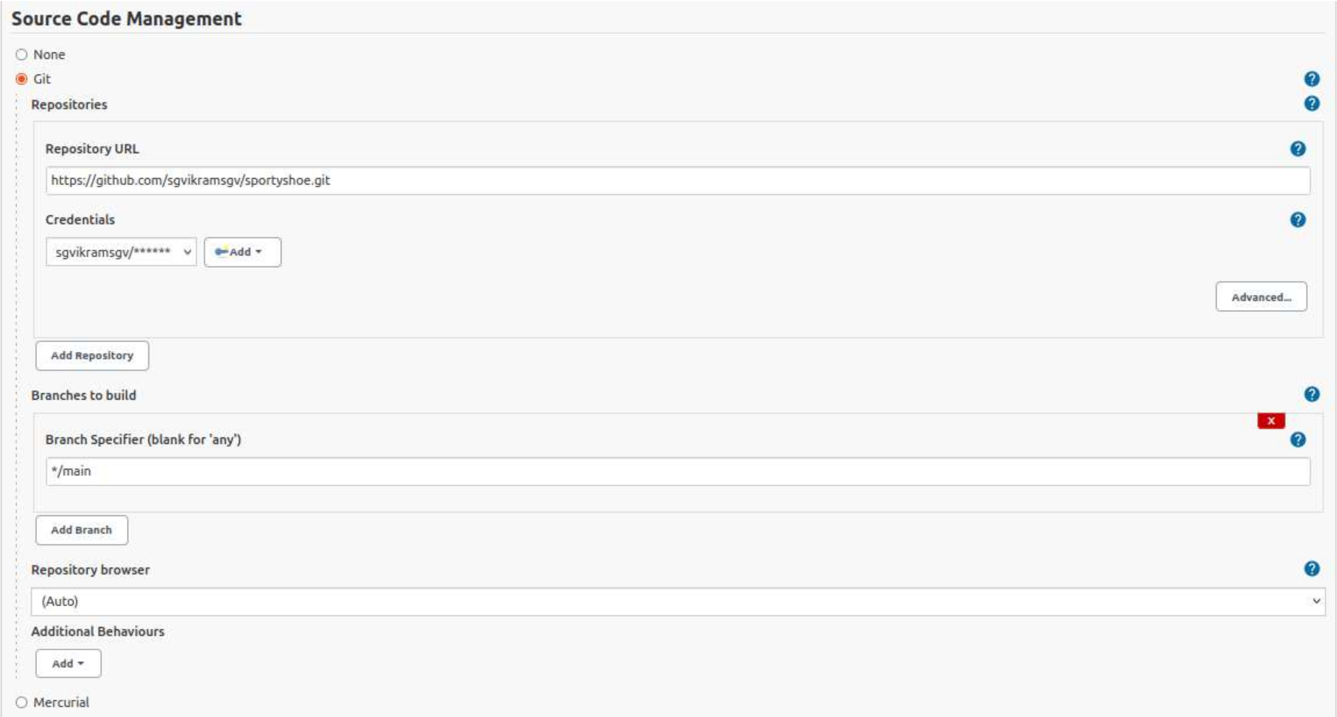
Description

[Plain text] Preview

□ Commit agent's Docker container
□ Run the build inside Docker containers
□ Define a Docker template
□ Discard old builds
□ GitHub project
□ Use custom workspace

GitLab Connection

□ Use alternative credential
□ Permission to Copy Artifact
□ This build requires lockable resources
□ This project is parameterized
□ Throttle builds
□ Disable this project
□ Execute concurrent builds if necessary
□ Restrict where this project can be run



Source Code Management

○ None
● Git

Repositories

Repository URL: https://github.com/sgvikramsgv/sportyshoe.git

Credentials: sgvikramsgv/******

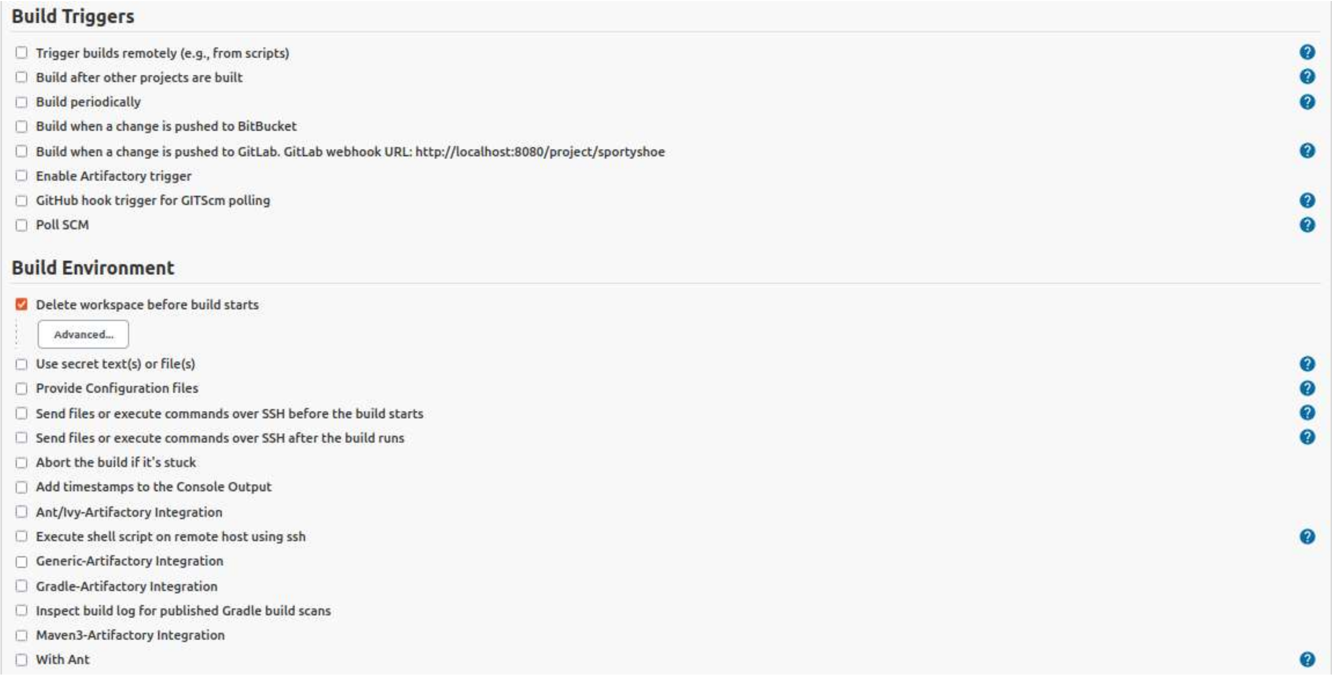
Branches to build

Branch Specifier (blank for 'any'): */main

Repository browser: (Auto)

Additional Behaviours

○ Mercurial



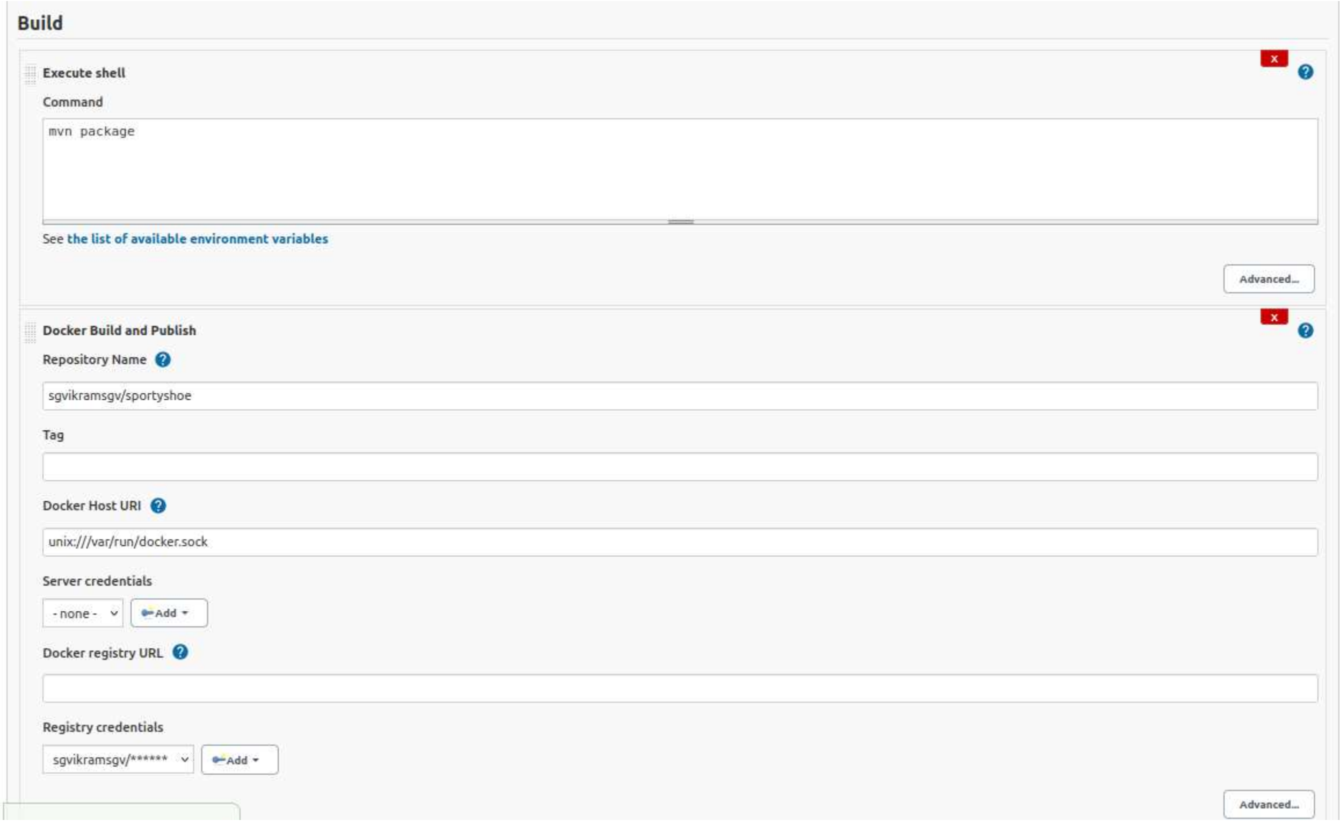
Build Triggers

- ☐ Trigger builds remotely (e.g., from scripts)
- ☐ Build after other projects are built
- ☐ Build periodically
- ☐ Build when a change is pushed to BitBucket
- ☐ Build when a change is pushed to GitLab. GitLab webhook URL: http://localhost:8080/project/sportyshoe
- ☐ Enable Artifactory trigger
- ☐ GitHub hook trigger for GITScm polling
- ☐ Poll SCM

Build Environment

- ☑ Delete workspace before build starts

- ☐ Use secret text(s) or file(s)
- ☐ Provide Configuration files
- ☐ Send files or execute commands over SSH before the build starts
- ☐ Send files or execute commands over SSH after the build runs
- ☐ Abort the build if it's stuck
- ☐ Add timestamps to the Console Output
- ☐ Ant/Ivy-Artifactory Integration
- ☐ Execute shell script on remote host using ssh
- ☐ Generic-Artifactory Integration
- ☐ Gradle-Artifactory Integration
- ☐ Inspect build log for published Gradle build scans
- ☐ Maven3-Artifactory Integration
- ☐ With Ant



Build

Execute shell

Command

```
mvn package
```

See the list of available environment variables

Docker Build and Publish

Repository Name: sgvikramsgv/sportyshoe

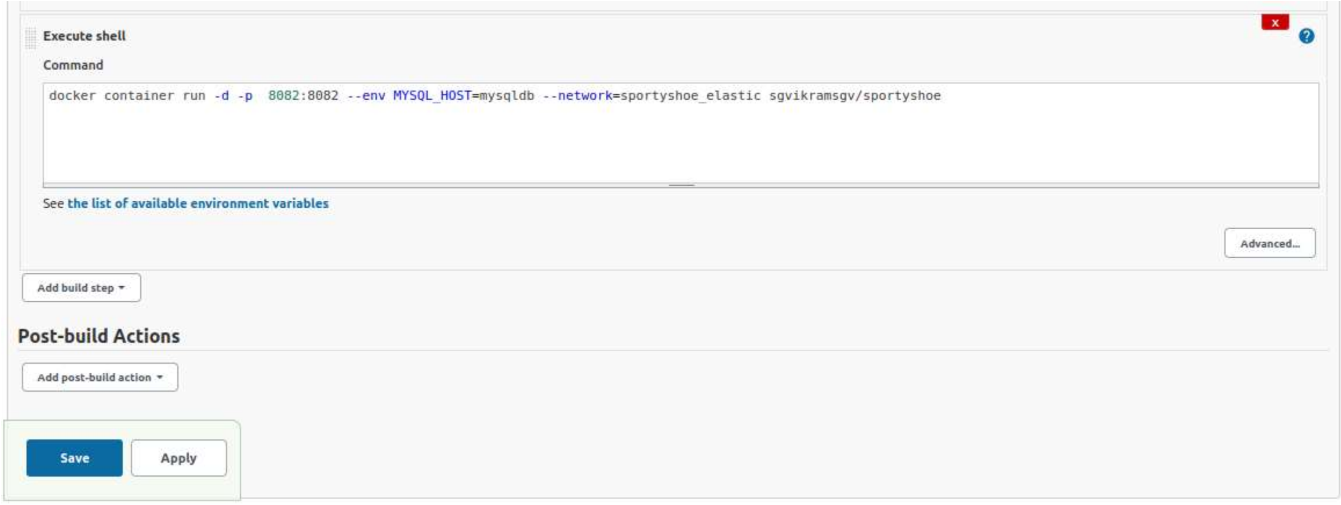
Tag:

Docker Host URI: unix:///var/run/docker.sock

Server credentials: - none -

Docker registry URL:

Registry credentials: sgvikramsgv/******



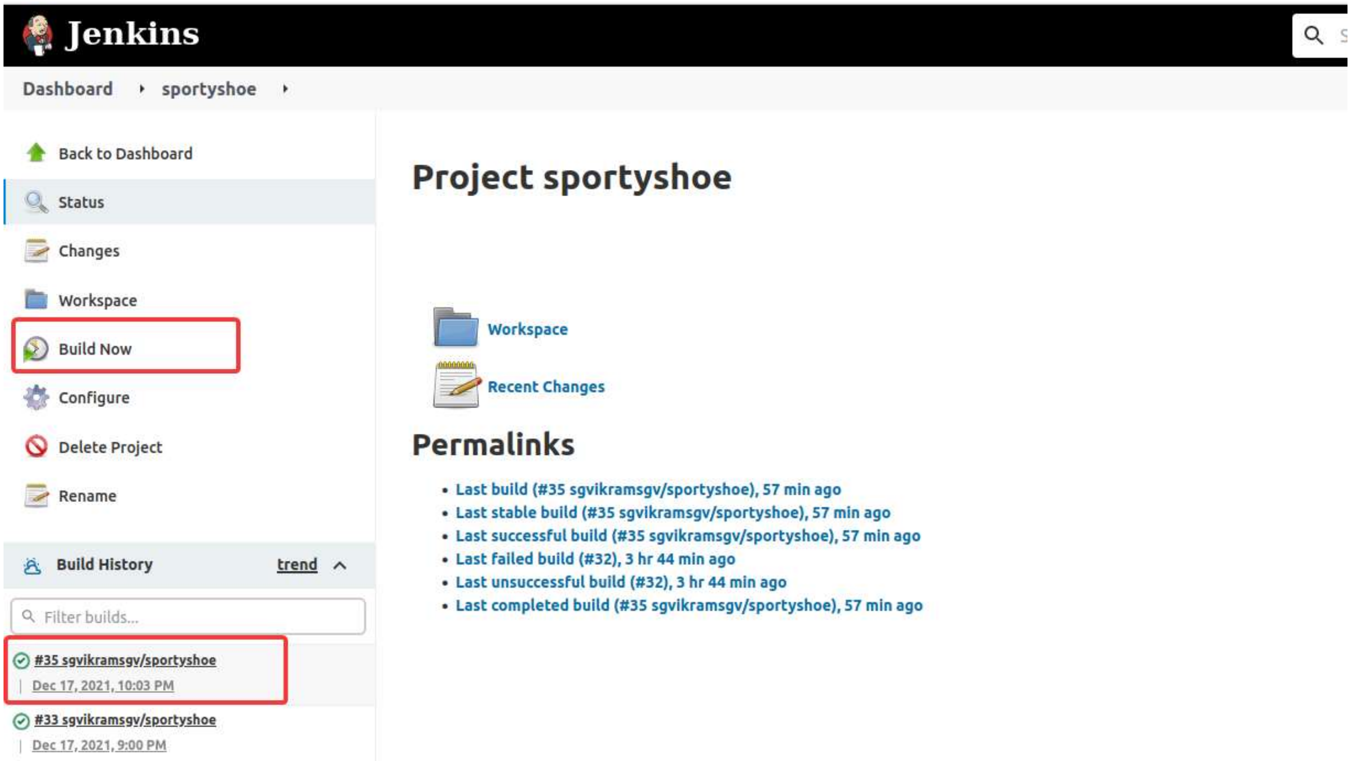
Execute shell

Command

```
docker container run -d -p  8082:8082 --env MYSQL_HOST=mysqldb --network=sportyshoe_elastic sgvikramsgv/sportyshoe
```

See the list of available environment variables

3. Run the Build from Jenkins and verify the console output:



Project sportyshoe

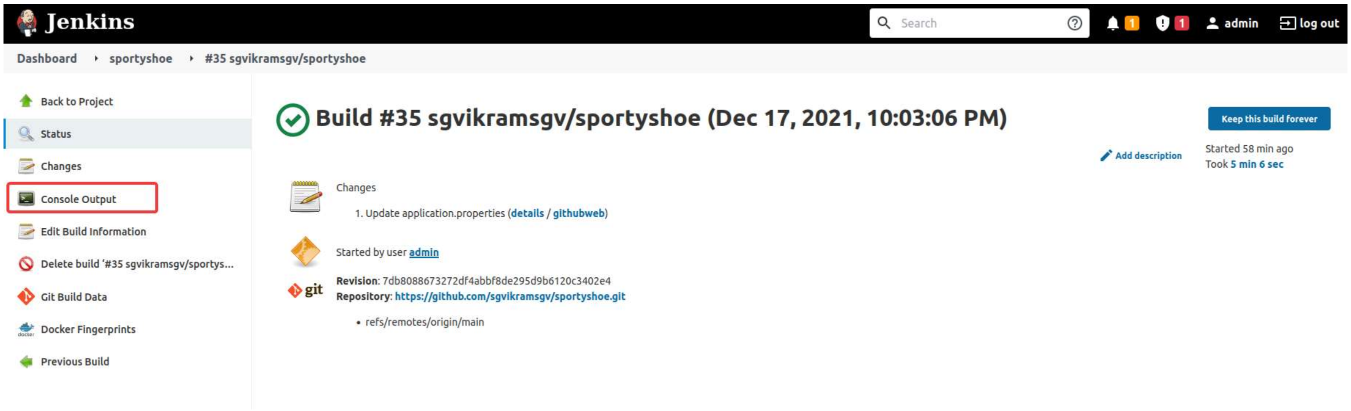
Permalinks

- Last build (#35 sgvikramsgv/sportyshoe), 57 min ago
- Last stable build (#35 sgvikramsgv/sportyshoe), 57 min ago
- Last successful build (#35 sgvikramsgv/sportyshoe), 57 min ago
- Last failed build (#32), 3 hr 44 min ago
- Last unsuccessful build (#32), 3 hr 44 min ago
- Last completed build (#35 sgvikramsgv/sportyshoe), 57 min ago

#35 sgvikramsgv/sportyshoe
Dec 17, 2021, 10:03 PM

#33 sgvikramsgv/sportyshoe
Dec 17, 2021, 9:00 PM

4. Click on the build job from above screenshot. On the resulting page, click on "Console Output"



Build #35 sgvikramsgv/sportyshoe (Dec 17, 2021, 10:03:06 PM)

Started 58 min ago
Took 5 min 6 sec

Changes

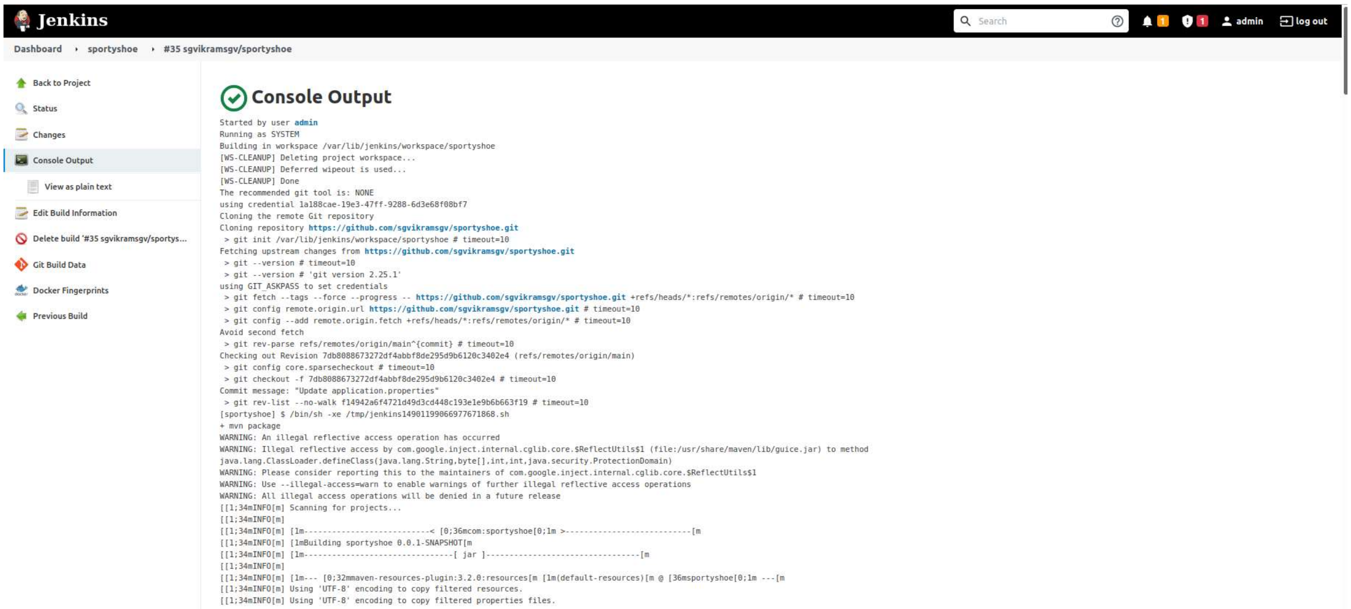
1. Update application.properties (details / githubweb)

Started by user admin

Revision: 7db8088673272df4abbf8de295d9b6120c3402e4
Repository: https://github.com/sgvikramsgv/sportyshoe.git

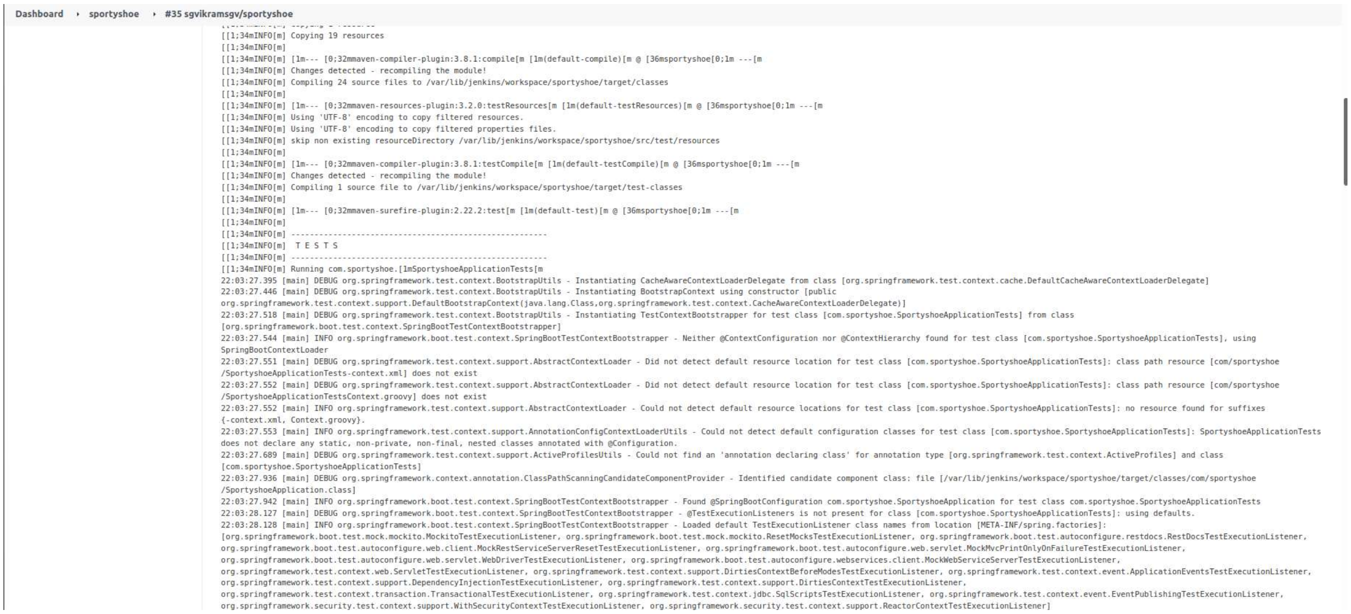
- refs/remotes/origin/main

5. Verify the console output and make sure that the result of the build is "Success"

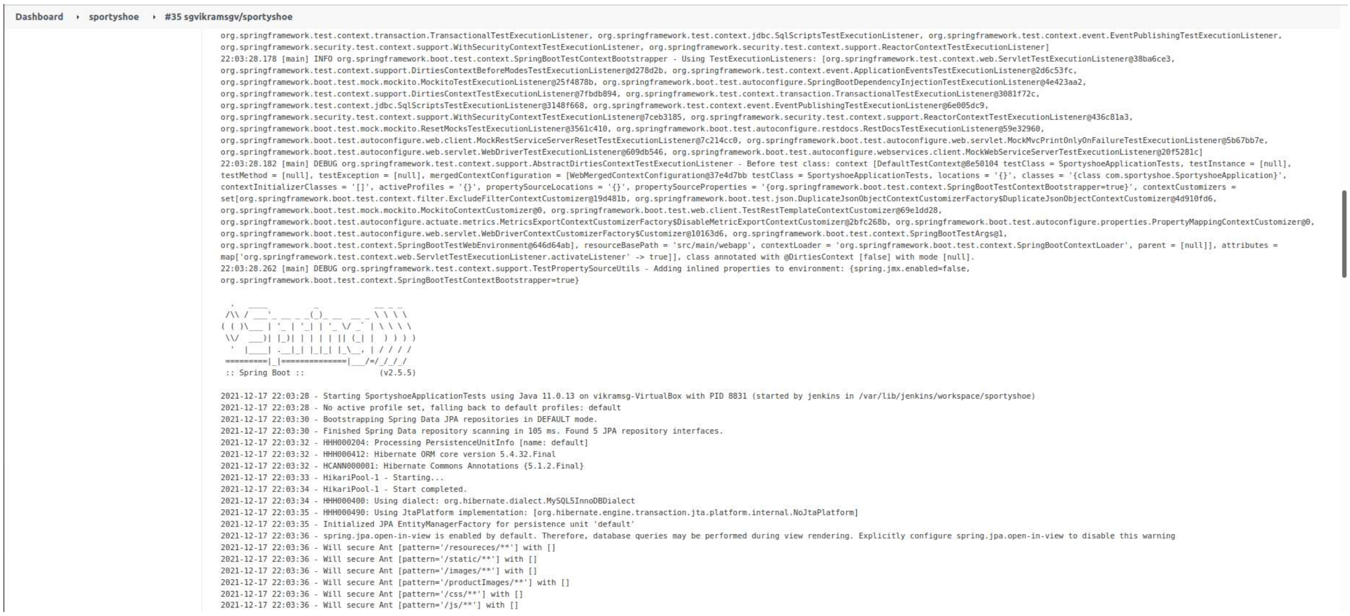


Console Output

```
Started by user admin
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/sportyshoe
[WS-CLEANUP] Deleting project workspace...
[WS-CLEANUP] Deferred wipeout is used...
[WS-CLEANUP] Done
The recommended git tool is: NONE
using credential 1a188cae-19e3-47ff-9288-6d3e68f08bf7
Cloning the remote Git repository
Cloning repository https://github.com/sgvikramsgv/sportyshoe.git
 > git init /var/lib/jenkins/workspace/sportyshoe # timeout=10
Fetching upstream changes from https://github.com/sgvikramsgv/sportyshoe.git
 > git --version # timeout=10
 > git --version # 'git version 2.25.1'
using GIT_ASKPASS to set credentials
 > git fetch --tags --force --progress -- https://github.com/sgvikramsgv/sportyshoe.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git config remote.origin.url https://github.com/sgvikramsgv/sportyshoe.git # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 7db8088673272df4abbf8de295d9b6120c3402e4 (refs/remotes/origin/main)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 7db8088673272df4abbf8de295d9b6120c3402e4 # timeout=10
Commit message: "Update application.properties"
 > git rev-list --no-walk f14942a6f4721d49d3cd448c193e1e9b6b663f19 # timeout=10
[sportyshoe] $ /bin/sh -xe /tmp/jenkins14901199066977671868.sh
+ mvn package
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method
java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[[1;34mINFO[m] Scanning for projects...
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--------------------------< [0;36mcom:sportyshoe[0;1m >--------------------------[m
[[1;34mINFO[m] [1mBuilding sportyshoe 0.0.1-SNAPSHOT[m
[[1;34mINFO[m] [1m--------------------------------[ jar ]---------------------------------[m
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mmaven-resources-plugin:3.2.0:resources[m [1m(default-resources)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m] Using 'UTF-8' encoding to copy filtered resources.
[[1;34mINFO[m] Using 'UTF-8' encoding to copy filtered properties files.
```



```
[[1;34mINFO[m] Copying 19 resources
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mmaven-compiler-plugin:3.8.1:compile[m [1m(default-compile)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m] Changes detected - recompiling the module!
[[1;34mINFO[m] Compiling 24 source files to /var/lib/jenkins/workspace/sportyshoe/target/classes
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mmaven-resources-plugin:3.2.0:testResources[m [1m(default-testResources)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m] Using 'UTF-8' encoding to copy filtered resources.
[[1;34mINFO[m] Using 'UTF-8' encoding to copy filtered properties files.
[[1;34mINFO[m] skip non existing resourceDirectory /var/lib/jenkins/workspace/sportyshoe/src/test/resources
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mmaven-compiler-plugin:3.8.1:testCompile[m [1m(default-testCompile)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m] Changes detected - recompiling the module!
[[1;34mINFO[m] Compiling 1 source file to /var/lib/jenkins/workspace/sportyshoe/target/test-classes
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mmaven-surefire-plugin:2.22.2:test[m [1m(default-test)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m]
[[1;34mINFO[m] -------------------------------------------------------
[[1;34mINFO[m]  T E S T S
[[1;34mINFO[m] -------------------------------------------------------
[[1;34mINFO[m] Running com.sportyshoe.[1mSportyshoeApplicationTests[m
22:03:27.395 [main] DEBUG org.springframework.test.context.BootstrapUtils - Instantiating CacheAwareContextLoaderDelegate from class [org.springframework.test.context.cache.DefaultCacheAwareContextLoaderDelegate]
22:03:27.446 [main] DEBUG org.springframework.test.context.BootstrapUtils - Instantiating BootstrapContext using constructor [public
org.springframework.test.context.support.DefaultBootstrapContext(java.lang.Class,org.springframework.test.context.CacheAwareContextLoaderDelegate)]
22:03:27.518 [main] DEBUG org.springframework.test.context.BootstrapUtils - Instantiating TestContextBootstrapper for test class [com.sportyshoe.SportyshoeApplicationTests] from class
[org.springframework.boot.test.context.SpringBootTestContextBootstrapper]
22:03:27.544 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Neither @ContextConfiguration nor @ContextHierarchy found for test class [com.sportyshoe.SportyshoeApplicationTests], using
SpringBootContextLoader
22:03:27.551 [main] DEBUG org.springframework.test.context.support.AbstractContextLoader - Did not detect default resource location for test class [com.sportyshoe.SportyshoeApplicationTests]: class path resource [com/sportyshoe
/SportyshoeApplicationTests-context.xml] does not exist
22:03:27.552 [main] DEBUG org.springframework.test.context.support.AbstractContextLoader - Did not detect default resource location for test class [com.sportyshoe.SportyshoeApplicationTests]: class path resource [com/sportyshoe
/SportyshoeApplicationTestsContext.groovy] does not exist
22:03:27.552 [main] INFO org.springframework.test.context.support.AbstractContextLoader - Could not detect default resource locations for test class [com.sportyshoe.SportyshoeApplicationTests]: no resource found for suffixes
{-context.xml, Context.groovy}.
22:03:27.553 [main] INFO org.springframework.test.context.support.AnnotationConfigContextLoaderUtils - Could not detect default configuration classes for test class [com.sportyshoe.SportyshoeApplicationTests]: SportyshoeApplicationTests
does not declare any static, non-private, non-final, nested classes annotated with @Configuration.
22:03:27.689 [main] DEBUG org.springframework.test.context.support.ActiveProfilesUtils - Could not find an 'annotation declaring class' for annotation type [org.springframework.test.context.ActiveProfiles] and class
[com.sportyshoe.SportyshoeApplicationTests]
22:03:27.936 [main] DEBUG org.springframework.context.annotation.ClassPathScanningCandidateComponentProvider - Identified candidate component class: file [/var/lib/jenkins/workspace/sportyshoe/target/classes/com/sportyshoe
/SportyshoeApplication.class]
22:03:27.942 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Found @SpringBootConfiguration com.sportyshoe.SportyshoeApplication for test class com.sportyshoe.SportyshoeApplicationTests
22:03:28.127 [main] DEBUG org.springframework.boot.test.context.SpringBootTestContextBootstrapper - @TestExecutionListeners is not present for class [com.sportyshoe.SportyshoeApplicationTests]: using defaults.
22:03:28.128 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Loaded default TestExecutionListener class names from location [META-INF/spring.factories]:
[org.springframework.boot.test.mock.mockito.MockitoTestExecutionListener, org.springframework.boot.test.mock.mockito.ResetMocksTestExecutionListener, org.springframework.boot.test.autoconfigure.restdocs.RestDocsTestExecutionListener,
org.springframework.boot.test.autoconfigure.web.client.MockRestServiceServerResetTestExecutionListener, org.springframework.boot.test.autoconfigure.web.servlet.MockMvcPrintOnlyOnFailureTestExecutionListener,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverTestExecutionListener, org.springframework.boot.test.autoconfigure.webservices.client.MockWebServiceServerTestExecutionListener,
org.springframework.test.context.web.ServletTestExecutionListener, org.springframework.test.context.support.DirtiesContextBeforeModesTestExecutionListener, org.springframework.test.context.event.ApplicationEventsTestExecutionListener,
org.springframework.test.context.support.DependencyInjectionTestExecutionListener, org.springframework.test.context.support.DirtiesContextTestExecutionListener,
org.springframework.test.context.transaction.TransactionalTestExecutionListener, org.springframework.test.context.jdbc.SqlScriptsTestExecutionListener, org.springframework.test.context.event.EventPublishingTestExecutionListener,
org.springframework.security.test.context.support.WithSecurityContextTestExecutionListener, org.springframework.security.test.context.support.ReactorContextTestExecutionListener]
```



```
org.springframework.test.context.transaction.TransactionalTestExecutionListener, org.springframework.test.context.jdbc.SqlScriptsTestExecutionListener, org.springframework.test.context.event.EventPublishingTestExecutionListener,
org.springframework.security.test.context.support.WithSecurityContextTestExecutionListener, org.springframework.security.test.context.support.ReactorContextTestExecutionListener]
22:03:28.178 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Using TestExecutionListeners: [org.springframework.test.context.web.ServletTestExecutionListener@38ba6ce3,
org.springframework.test.context.support.DirtiesContextBeforeModesTestExecutionListener@d278d2b, org.springframework.test.context.event.ApplicationEventsTestExecutionListener@2d6c53fc,
org.springframework.boot.test.mock.mockito.MockitoTestExecutionListener@25f4878b, org.springframework.boot.test.autoconfigure.SpringBootDependencyInjectionTestExecutionListener@4e423aa2,
org.springframework.test.context.support.DirtiesContextTestExecutionListener@7fbdb894, org.springframework.test.context.transaction.TransactionalTestExecutionListener@3081f72c,
org.springframework.test.context.jdbc.SqlScriptsTestExecutionListener@3148f668, org.springframework.test.context.event.EventPublishingTestExecutionListener@6e005dc9,
org.springframework.security.test.context.support.WithSecurityContextTestExecutionListener@7ceb3185, org.springframework.security.test.context.support.ReactorContextTestExecutionListener@436c81a3,
org.springframework.boot.test.mock.mockito.ResetMocksTestExecutionListener@3561c410, org.springframework.boot.test.autoconfigure.restdocs.RestDocsTestExecutionListener@59e32960,
org.springframework.boot.test.autoconfigure.web.client.MockRestServiceServerResetTestExecutionListener@7c214cc0, org.springframework.boot.test.autoconfigure.web.servlet.MockMvcPrintOnlyOnFailureTestExecutionListener@5b67bb7e,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverTestExecutionListener@609db546, org.springframework.boot.test.autoconfigure.webservices.client.MockWebServiceServerTestExecutionListener@20f5281c]
22:03:28.182 [main] DEBUG org.springframework.test.context.support.AbstractDirtiesContextTestExecutionListener - Before test class: context [DefaultTestContext@8e50104 testClass = SportyshoeApplicationTests, testInstance = [null],
testMethod = [null], testException = [null], mergedContextConfiguration = [WebMergedContextConfiguration@37e4d7bb testClass = SportyshoeApplicationTests, locations = '{}', classes = '{class com.sportyshoe.SportyshoeApplication}',
contextInitializerClasses = '[]', activeProfiles = '{}', propertySourceLocations = '{}', propertySourceProperties = '{org.springframework.boot.test.context.SpringBootTestContextBootstrapper=true}', contextCustomizers =
set[org.springframework.boot.test.context.filter.ExcludeFilterContextCustomizer@19d481b, org.springframework.boot.test.json.DuplicateJsonObjectContextCustomizerFactory$DuplicateJsonObjectContextCustomizer@4d910fd6,
org.springframework.boot.test.mock.mockito.MockitoContextCustomizer@0, org.springframework.boot.test.web.client.TestRestTemplateContextCustomizer@69e1dd28,
org.springframework.boot.test.autoconfigure.actuate.metrics.MetricsExportContextCustomizerFactory$DisableMetricExportContextCustomizer@2bfc268b, org.springframework.boot.test.autoconfigure.properties.PropertyMappingContextCustomizer@0,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverContextCustomizerFactory$Customizer@10163d6, org.springframework.boot.test.context.SpringBootTestArgs@1,
org.springframework.boot.test.context.SpringBootTestWebEnvironment@646d64ab], resourceBasePath = 'src/main/webapp', contextLoader = 'org.springframework.boot.test.context.SpringBootContextLoader', parent = [null]], attributes =
map['org.springframework.test.context.web.ServletTestExecutionListener.activateListener' -> true]], class annotated with @DirtiesContext [false] with mode [null].
22:03:28.262 [main] DEBUG org.springframework.test.context.support.TestPropertySourceUtils - Adding inlined properties to environment: {spring.jmx.enabled=false,
org.springframework.boot.test.context.SpringBootTestContextBootstrapper=true}

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 \\/  ___)| |_)| | | | | || (_| |  ) ) ) )
  '  |____| .__|_| |_|_| |_\__, | / / / /
 =========|_|==============|___/=/_/_/_/
 :: Spring Boot ::                (v2.5.5)

2021-12-17 22:03:28 - Starting SportyshoeApplicationTests using Java 11.0.13 on vikramsg-VirtualBox with PID 8831 (started by jenkins in /var/lib/jenkins/workspace/sportyshoe)
2021-12-17 22:03:28 - No active profile set, falling back to default profiles: default
2021-12-17 22:03:30 - Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2021-12-17 22:03:30 - Finished Spring Data repository scanning in 105 ms. Found 5 JPA repository interfaces.
2021-12-17 22:03:32 - HHH000204: Processing PersistenceUnitInfo [name: default]
2021-12-17 22:03:32 - HHH000412: Hibernate ORM core version 5.4.32.Final
2021-12-17 22:03:32 - HCANN000001: Hibernate Commons Annotations {5.1.2.Final}
2021-12-17 22:03:33 - HikariPool-1 - Starting...
2021-12-17 22:03:34 - HikariPool-1 - Start completed.
2021-12-17 22:03:34 - HHH000400: Using dialect: org.hibernate.dialect.MySQL5InnoDBDialect
2021-12-17 22:03:35 - HHH000490: Using JtaPlatform implementation: [org.hibernate.engine.transaction.jta.platform.internal.NoJtaPlatform]
2021-12-17 22:03:35 - Initialized JPA EntityManagerFactory for persistence unit 'default'
2021-12-17 22:03:36 - spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performed during view rendering. Explicitly configure spring.jpa.open-in-view to disable this warning
2021-12-17 22:03:36 - Will secure Ant [pattern='/resoureces/**'] with []
2021-12-17 22:03:36 - Will secure Ant [pattern='/static/**'] with []
2021-12-17 22:03:36 - Will secure Ant [pattern='/images/**'] with []
2021-12-17 22:03:36 - Will secure Ant [pattern='/productImages/**'] with []
2021-12-17 22:03:36 - Will secure Ant [pattern='/css/**'] with []
2021-12-17 22:03:36 - Will secure Ant [pattern='/js/**'] with []
```
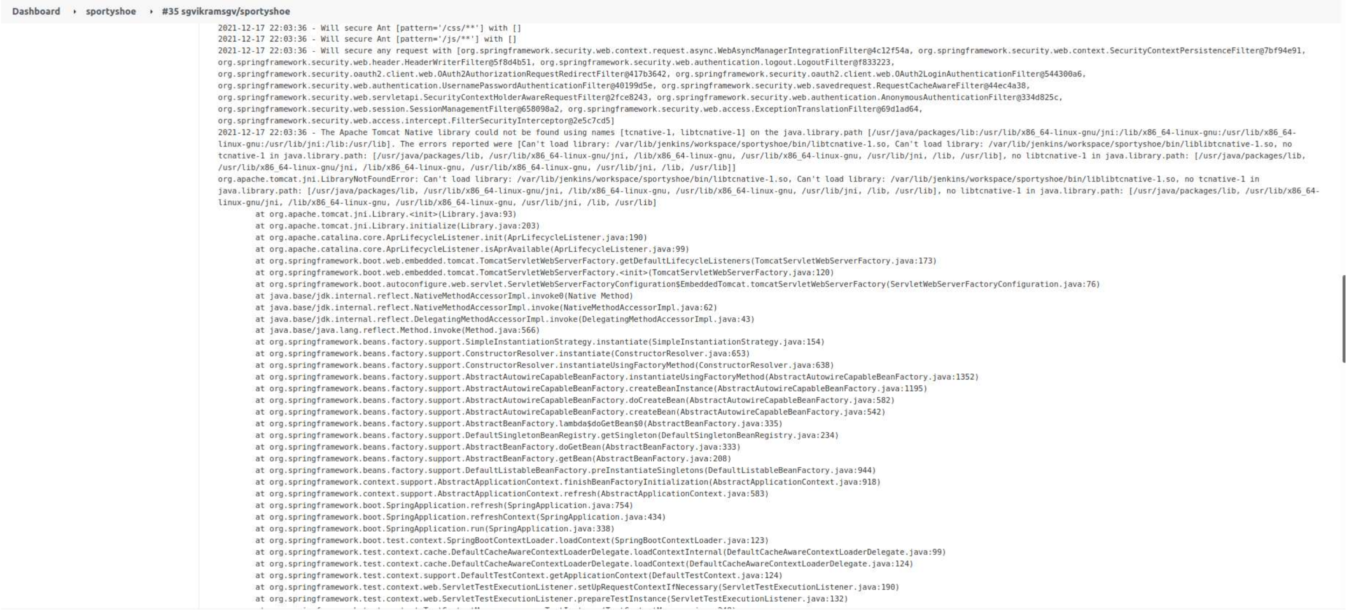
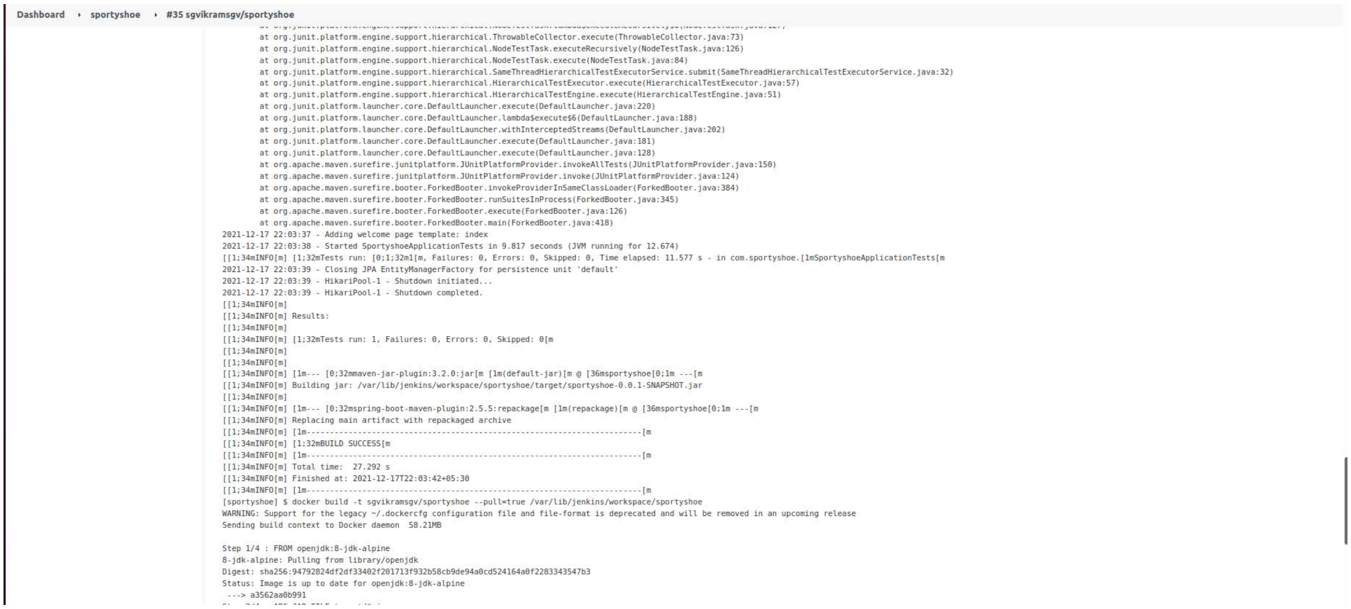
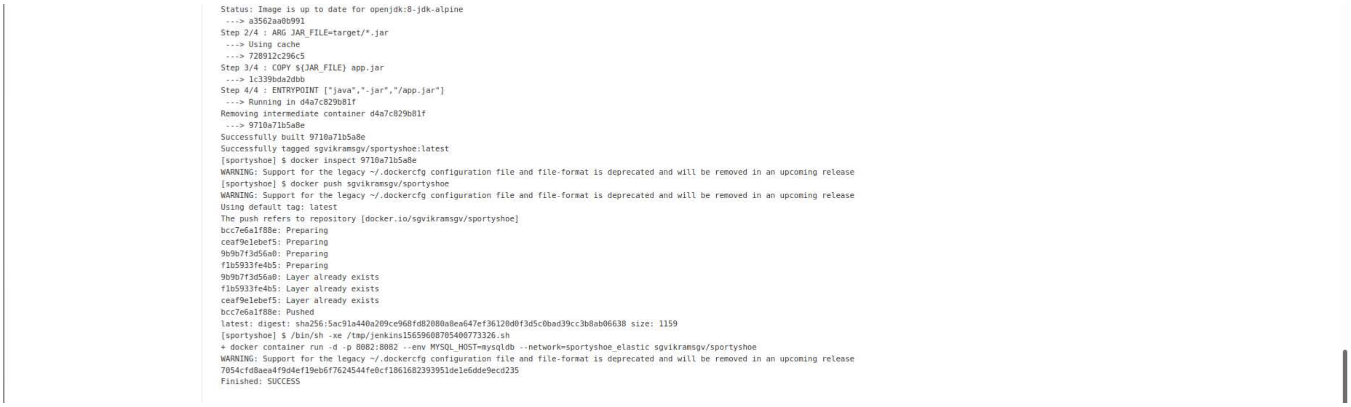



```
2021-12-17 22:03:36 - Will secure Ant [pattern='/css/**'] with []
2021-12-17 22:03:36 - Will secure Ant [pattern='/js/**'] with []
2021-12-17 22:03:36 - Will secure any request with [org.springframework.security.web.context.request.async.WebAsyncManagerIntegrationFilter@4c12f54a, org.springframework.security.web.context.SecurityContextPersistenceFilter@7bf94e91,
org.springframework.security.web.header.HeaderWriterFilter@5f8d4b51, org.springframework.security.web.authentication.logout.LogoutFilter@f833223,
org.springframework.security.oauth2.client.web.OAuth2AuthorizationRequestRedirectFilter@417b3642, org.springframework.security.oauth2.client.web.OAuth2LoginAuthenticationFilter@544300a6,
org.springframework.security.web.authentication.UsernamePasswordAuthenticationFilter@40199d5e, org.springframework.security.web.savedrequest.RequestCacheAwareFilter@44ec4a38,
org.springframework.security.web.servletapi.SecurityContextHolderAwareRequestFilter@2fce8243, org.springframework.security.web.authentication.AnonymousAuthenticationFilter@334d825c,
org.springframework.security.web.session.SessionManagementFilter@658098a2, org.springframework.security.web.access.ExceptionTranslationFilter@69d1ad64,
org.springframework.security.web.access.intercept.FilterSecurityInterceptor@2e5c7cd5]
2021-12-17 22:03:36 - The Apache Tomcat Native library could not be found using names [tcnative-1, libtcnative-1] on the java.library.path [/usr/java/packages/lib:/usr/lib/x86_64-linux-gnu/jni:/lib/x86_64-linux-gnu:/usr/lib/x86_64-
linux-gnu:/usr/lib/jni:/lib:/usr/lib]. The errors reported were [Can't load library: /var/lib/jenkins/workspace/sportyshoe/bin/libtcnative-1.so, Can't load library: /var/lib/jenkins/workspace/sportyshoe/bin/liblibtcnative-1.so, no
tcnative-1 in java.library.path: [/usr/java/packages/lib, /usr/lib/x86_64-linux-gnu/jni, /lib/x86_64-linux-gnu, /usr/lib/x86_64-linux-gnu, /usr/lib/jni, /lib, /usr/lib], no libtcnative-1 in java.library.path: [/usr/java/packages/lib,
/usr/lib/x86_64-linux-gnu/jni, /lib/x86_64-linux-gnu, /usr/lib/x86_64-linux-gnu, /usr/lib/jni, /lib, /usr/lib]]
org.apache.tomcat.jni.LibraryNotFoundError: Can't load library: /var/lib/jenkins/workspace/sportyshoe/bin/libtcnative-1.so, Can't load library: /var/lib/jenkins/workspace/sportyshoe/bin/liblibtcnative-1.so, no tcnative-1 in
java.library.path: [/usr/java/packages/lib, /usr/lib/x86_64-linux-gnu/jni, /lib/x86_64-linux-gnu, /usr/lib/x86_64-linux-gnu, /usr/lib/jni, /lib, /usr/lib], no libtcnative-1 in java.library.path: [/usr/java/packages/lib, /usr/lib/x86_64-
linux-gnu/jni, /lib/x86_64-linux-gnu, /usr/lib/x86_64-linux-gnu, /usr/lib/jni, /lib, /usr/lib]
        at org.apache.tomcat.jni.Library.<init>(Library.java:93)
        at org.apache.tomcat.jni.Library.initialize(Library.java:203)
        at org.apache.catalina.core.AprLifecycleListener.init(AprLifecycleListener.java:190)
        at org.apache.catalina.core.AprLifecycleListener.isAprAvailable(AprLifecycleListener.java:99)
        at org.springframework.boot.web.embedded.tomcat.TomcatServletWebServerFactory.getDefaultLifecycleListeners(TomcatServletWebServerFactory.java:173)
        at org.springframework.boot.web.embedded.tomcat.TomcatServletWebServerFactory.<init>(TomcatServletWebServerFactory.java:120)
        at org.springframework.boot.autoconfigure.web.servlet.ServletWebServerFactoryConfiguration$EmbeddedTomcat.tomcatServletWebServerFactory(ServletWebServerFactoryConfiguration.java:76)
        at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.base/java.lang.reflect.Method.invoke(Method.java:566)
        at org.springframework.beans.factory.support.SimpleInstantiationStrategy.instantiate(SimpleInstantiationStrategy.java:154)
        at org.springframework.beans.factory.support.ConstructorResolver.instantiate(ConstructorResolver.java:653)
        at org.springframework.beans.factory.support.ConstructorResolver.instantiateUsingFactoryMethod(ConstructorResolver.java:638)
        at org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.instantiateUsingFactoryMethod(AbstractAutowireCapableBeanFactory.java:1352)
        at org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.createBeanInstance(AbstractAutowireCapableBeanFactory.java:1195)
        at org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.doCreateBean(AbstractAutowireCapableBeanFactory.java:582)
        at org.springframework.beans.factory.support.AbstractAutowireCapableBeanFactory.createBean(AbstractAutowireCapableBeanFactory.java:542)
        at org.springframework.beans.factory.support.AbstractBeanFactory.lambda$doGetBean$0(AbstractBeanFactory.java:335)
        at org.springframework.beans.factory.support.DefaultSingletonBeanRegistry.getSingleton(DefaultSingletonBeanRegistry.java:234)
        at org.springframework.beans.factory.support.AbstractBeanFactory.doGetBean(AbstractBeanFactory.java:333)
        at org.springframework.beans.factory.support.AbstractBeanFactory.getBean(AbstractBeanFactory.java:208)
        at org.springframework.beans.factory.support.DefaultListableBeanFactory.preInstantiateSingletons(DefaultListableBeanFactory.java:944)
        at org.springframework.context.support.AbstractApplicationContext.finishBeanFactoryInitialization(AbstractApplicationContext.java:918)
        at org.springframework.context.support.AbstractApplicationContext.refresh(AbstractApplicationContext.java:583)
        at org.springframework.boot.SpringApplication.refresh(SpringApplication.java:754)
        at org.springframework.boot.SpringApplication.refreshContext(SpringApplication.java:434)
        at org.springframework.boot.SpringApplication.run(SpringApplication.java:338)
        at org.springframework.boot.test.context.SpringBootContextLoader.loadContext(SpringBootContextLoader.java:123)
        at org.springframework.test.context.cache.DefaultCacheAwareContextLoaderDelegate.loadContextInternal(DefaultCacheAwareContextLoaderDelegate.java:99)
        at org.springframework.test.context.cache.DefaultCacheAwareContextLoaderDelegate.loadContext(DefaultCacheAwareContextLoaderDelegate.java:124)
        at org.springframework.test.context.support.DefaultTestContext.getApplicationContext(DefaultTestContext.java:124)
        at org.springframework.test.context.web.ServletTestExecutionListener.setUpRequestContextIfNecessary(ServletTestExecutionListener.java:190)
        at org.springframework.test.context.web.ServletTestExecutionListener.prepareTestInstance(ServletTestExecutionListener.java:132)
```



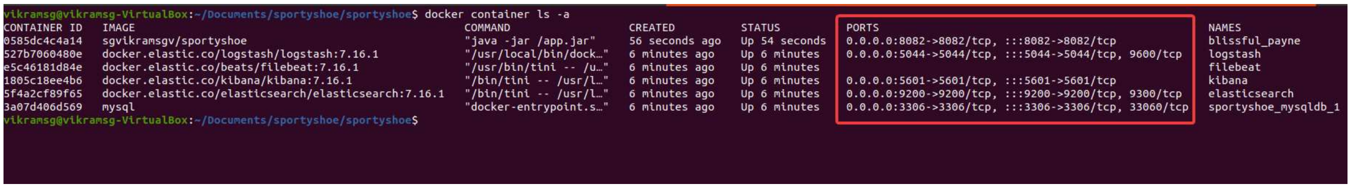
```
        at org.junit.platform.engine.support.hierarchical.ThrowableCollector.execute(ThrowableCollector.java:73)
        at org.junit.platform.engine.support.hierarchical.NodeTestTask.executeRecursively(NodeTestTask.java:126)
        at org.junit.platform.engine.support.hierarchical.NodeTestTask.execute(NodeTestTask.java:84)
        at org.junit.platform.engine.support.hierarchical.SameThreadHierarchicalTestExecutorService.submit(SameThreadHierarchicalTestExecutorService.java:32)
        at org.junit.platform.engine.support.hierarchical.HierarchicalTestExecutor.execute(HierarchicalTestExecutor.java:57)
        at org.junit.platform.engine.support.hierarchical.HierarchicalTestEngine.execute(HierarchicalTestEngine.java:51)
        at org.junit.platform.launcher.core.DefaultLauncher.execute(DefaultLauncher.java:220)
        at org.junit.platform.launcher.core.DefaultLauncher.lambda$execute$6(DefaultLauncher.java:188)
        at org.junit.platform.launcher.core.DefaultLauncher.withInterceptedStreams(DefaultLauncher.java:202)
        at org.junit.platform.launcher.core.DefaultLauncher.execute(DefaultLauncher.java:181)
        at org.junit.platform.launcher.core.DefaultLauncher.execute(DefaultLauncher.java:128)
        at org.apache.maven.surefire.junitplatform.JUnitPlatformProvider.invokeAllTests(JUnitPlatformProvider.java:150)
        at org.apache.maven.surefire.junitplatform.JUnitPlatformProvider.invoke(JUnitPlatformProvider.java:124)
        at org.apache.maven.surefire.booter.ForkedBooter.invokeProviderInSameClassLoader(ForkedBooter.java:384)
        at org.apache.maven.surefire.booter.ForkedBooter.runSuitesInProcess(ForkedBooter.java:345)
        at org.apache.maven.surefire.booter.ForkedBooter.execute(ForkedBooter.java:126)
        at org.apache.maven.surefire.booter.ForkedBooter.main(ForkedBooter.java:418)
2021-12-17 22:03:37 - Adding welcome page template: index
2021-12-17 22:03:38 - Started SportyshoeApplicationTests in 9.817 seconds (JVM running for 12.674)
[[1;34mINFO[m] [1;32mTests run: [0;1;32m1[m, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 11.577 s - in com.sportyshoe.[1mSportyshoeApplicationTests[m
2021-12-17 22:03:39 - Closing JPA EntityManagerFactory for persistence unit 'default'
2021-12-17 22:03:39 - HikariPool-1 - Shutdown initiated...
2021-12-17 22:03:39 - HikariPool-1 - Shutdown completed.
[[1;34mINFO[m]
[[1;34mINFO[m] Results:
[[1;34mINFO[m]
[[1;34mINFO[m] [1;32mTests run: 1, Failures: 0, Errors: 0, Skipped: 0[m
[[1;34mINFO[m]
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mmaven-jar-plugin:3.2.0:jar[m [1m(default-jar)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m] Building jar: /var/lib/jenkins/workspace/sportyshoe/target/sportyshoe-0.0.1-SNAPSHOT.jar
[[1;34mINFO[m]
[[1;34mINFO[m] [1m--- [0;32mspring-boot-maven-plugin:2.5.5:repackage[m [1m(repackage)[m @ [36msportyshoe[0;1m ---[m
[[1;34mINFO[m] Replacing main artifact with repackaged archive
[[1;34mINFO[m] [1m------------------------------------------------------------------------[m
[[1;34mINFO[m] [1;32mBUILD SUCCESS[m
[[1;34mINFO[m] [1m------------------------------------------------------------------------[m
[[1;34mINFO[m] Total time:  27.292 s
[[1;34mINFO[m] Finished at: 2021-12-17T22:03:42+05:30
[[1;34mINFO[m] [1m------------------------------------------------------------------------[m
[sportyshoe] $ docker build -t sgvikramsgv/sportyshoe --pull=true /var/lib/jenkins/workspace/sportyshoe
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
Sending build context to Docker daemon  58.21MB

Step 1/4 : FROM openjdk:8-jdk-alpine
8-jdk-alpine: Pulling from library/openjdk
Digest: sha256:94792824df2df33402f201713f932b58cb9de94a0cd524164a0f2283343547b3
Status: Image is up to date for openjdk:8-jdk-alpine
 ---> a3562aa0b991
```



```
Status: Image is up to date for openjdk:8-jdk-alpine
 ---> a3562aa0b991
Step 2/4 : ARG JAR_FILE=target/*.jar
 ---> Using cache
 ---> 728912c296c5
Step 3/4 : COPY ${JAR_FILE} app.jar
 ---> 1c339bda2dbb
Step 4/4 : ENTRYPOINT ["java","-jar","/app.jar"]
 ---> Running in d4a7c829b81f
Removing intermediate container d4a7c829b81f
 ---> 9710a71b5a8e
Successfully built 9710a71b5a8e
Successfully tagged sgvikramsgv/sportyshoe:latest
[sportyshoe] $ docker inspect 9710a71b5a8e
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
[sportyshoe] $ docker push sgvikramsgv/sportyshoe
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
Using default tag: latest
The push refers to repository [docker.io/sgvikramsgv/sportyshoe]
bcc7e6a1f88e: Preparing
ceaf9e1ebef5: Preparing
9b9b7f3d56a0: Preparing
f1b5933fe4b5: Preparing
9b9b7f3d56a0: Layer already exists
f1b5933fe4b5: Layer already exists
ceaf9e1ebef5: Layer already exists
bcc7e6a1f88e: Pushed
latest: digest: sha256:5ac91a440a209ce968fd82080a8ea647ef36120d0f3d5c0bad39cc3b8ab06638 size: 1159
[sportyshoe] $ /bin/sh -xe /tmp/jenkins1565960870540O773326.sh
+ docker container run -d -p 8082:8082 --env MYSQL_HOST=mysqldb --network=sportyshoe_elastic sgvikramsgv/sportyshoe
WARNING: Support for the legacy ~/.dockercfg configuration file and file-format is deprecated and will be removed in an upcoming release
7054cfd8aea4f9d4ef19eb6f7624544fe0cf1861682393951de1e6dde9ecd235
Finished: SUCCESS
```

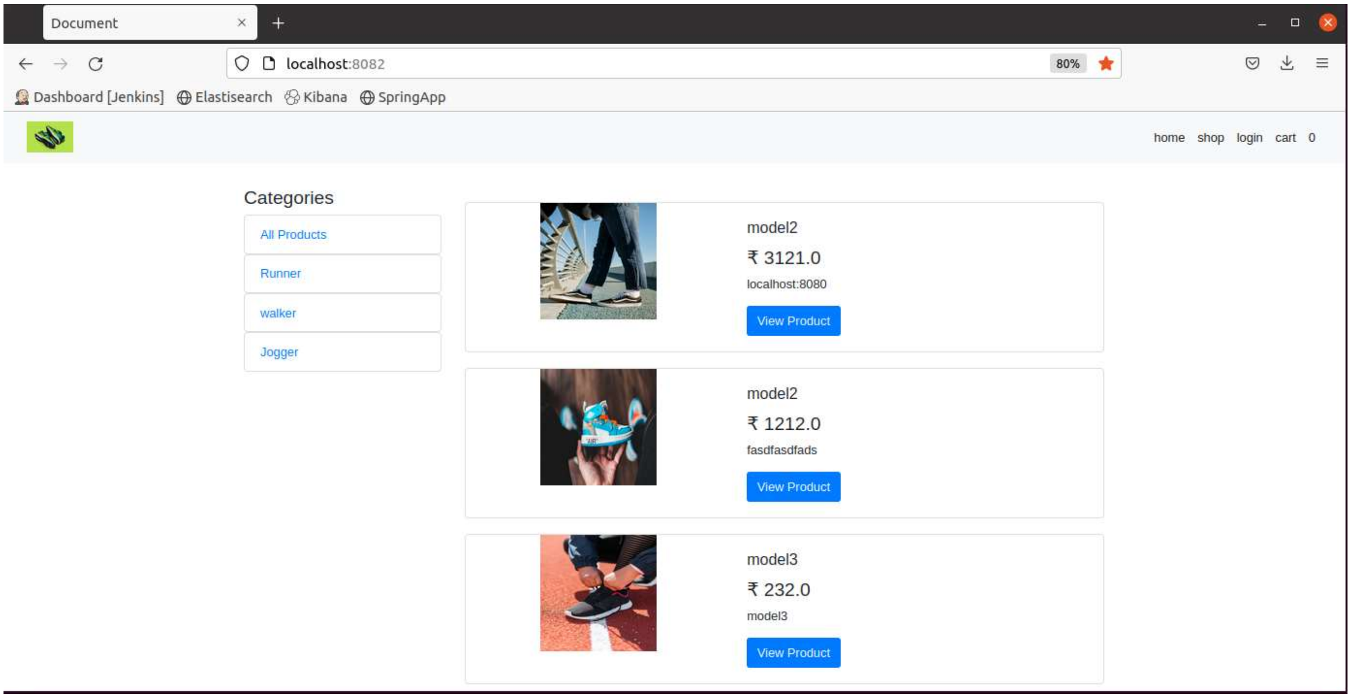
Verify the project setup

1. Verify that all the required containers are running. The exposed ports are also seen in the output.



```
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$ docker container ls -a
CONTAINER ID   IMAGE                                                COMMAND                  CREATED          STATUS          PORTS                                                  NAMES
0585dc4c4a14   sgvikramsgv/sportyshoe                               "java -jar /app.jar"     56 seconds ago   Up 54 seconds   0.0.0.0:8082->8082/tcp, :::8082->8082/tcp              blissful_payne
527b7060480e   docker.elastic.co/logstash/logstash:7.16.1           "/usr/local/bin/dock…"   6 minutes ago    Up 6 minutes    0.0.0.0:5044->5044/tcp, :::5044->5044/tcp, 9600/tcp    logstash
e5c46181d84e   docker.elastic.co/beats/filebeat:7.16.1              "/usr/bin/tini -- /u…"   6 minutes ago    Up 6 minutes                                                           filebeat
1805c18ee4b6   docker.elastic.co/kibana/kibana:7.16.1               "/bin/tini -- /usr/l…"   6 minutes ago    Up 6 minutes    0.0.0.0:5601->5601/tcp, :::5601->5601/tcp              kibana
5f4a2cf89f65   docker.elastic.co/elasticsearch/elasticsearch:7.16.1 "/bin/tini -- /usr/l…"   6 minutes ago    Up 6 minutes    0.0.0.0:9200->9200/tcp, :::9200->9200/tcp, 9300/tcp    elasticsearch
3a07d406d569   mysql                                                "docker-entrypoint.s…"   6 minutes ago    Up 6 minutes    0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp   sportyshoe_mysqldb_1
vikramsg@vikramsg-VirtualBox:~/Documents/sportyshoe/sportyshoe$
```

2. Launch the Spring boot application web page using http://localhost:8082



Categories

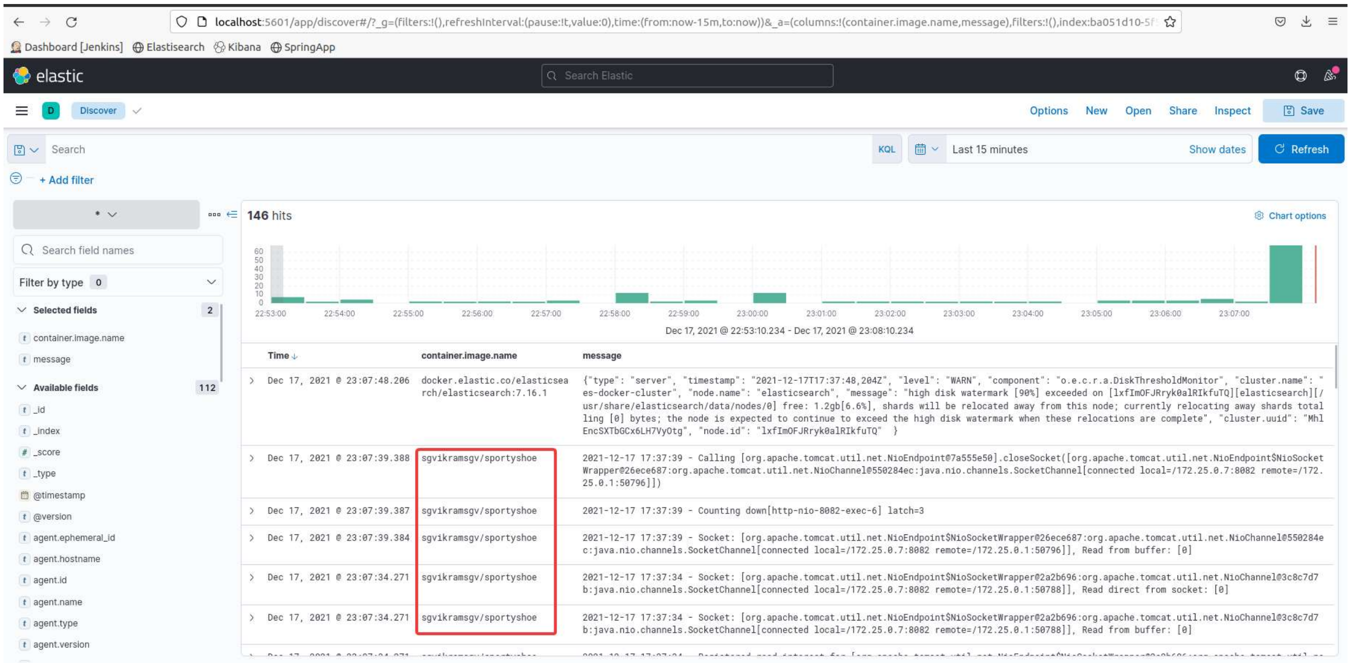
- All Products
- Runner
- walker
- Jogger

model2
₹ 3121.0
localhost:8080
View Product

model2
₹ 1212.0
fasdfasdfads
View Product

model3
₹ 232.0
model3
View Product

3. Verify that the logs are displayed in Kibana – Discover page.



Time ↓	container.image.name	message
Dec 17, 2021 @ 23:07:48.206	docker.elastic.co/elasticsearch/elasticsearch:7.16.1	{"type": "server", "timestamp": "2021-12-17T17:37:48,204Z", "level": "WARN", "component": "o.e.c.r.a.DiskThresholdMonitor", "cluster.name": "es-docker-cluster", "node.name": "elasticsearch", "message": "high disk watermark [90%] exceeded on [lxfImOFJRryk0alRIkfuTQ][elasticsearch][/usr/share/elasticsearch/data/nodes/0] free: 1.2gb[6.6%], shards will be relocated away from this node; currently relocating away shards totalling [0] bytes; the node is expected to continue to exceed the high disk watermark when these relocations are complete", "cluster.uuid": "MhlEncSXTbGCx6LH7VyOtg", "node.id": "lxfImOFJRryk0alRIkfuTQ" }
Dec 17, 2021 @ 23:07:39.388	sgvikramsgv/sportyshoe	2021-12-17 17:37:39 - Calling [org.apache.tomcat.util.net.NioEndpoint@7a555e50].closeSocket([org.apache.tomcat.util.net.NioEndpoint$NioSocketWrapper@26ece687:org.apache.tomcat.util.net.NioChannel@550284ec:java.nio.channels.SocketChannel[connected local=/172.25.0.7:8082 remote=/172.25.0.1:50796]])
Dec 17, 2021 @ 23:07:39.387	sgvikramsgv/sportyshoe	2021-12-17 17:37:39 - Counting down[http-nio-8082-exec-6] latch=3
Dec 17, 2021 @ 23:07:39.384	sgvikramsgv/sportyshoe	2021-12-17 17:37:39 - Socket: [org.apache.tomcat.util.net.NioEndpoint$NioSocketWrapper@26ece687:org.apache.tomcat.util.net.NioChannel@550284ec:java.nio.channels.SocketChannel[connected local=/172.25.0.7:8082 remote=/172.25.0.1:50796]], Read from buffer: [0]
Dec 17, 2021 @ 23:07:34.271	sgvikramsgv/sportyshoe	2021-12-17 17:37:34 - Socket: [org.apache.tomcat.util.net.NioEndpoint$NioSocketWrapper@2a2b696:org.apache.tomcat.util.net.NioChannel@3c8c7d7b:java.nio.channels.SocketChannel[connected local=/172.25.0.7:8082 remote=/172.25.0.1:50788]], Read direct from socket: [0]
Dec 17, 2021 @ 23:07:34.271	sgvikramsgv/sportyshoe	2021-12-17 17:37:34 - Socket: [org.apache.tomcat.util.net.NioEndpoint$NioSocketWrapper@2a2b696:org.apache.tomcat.util.net.NioChannel@3c8c7d7b:java.nio.channels.SocketChannel[connected local=/172.25.0.7:8082 remote=/172.25.0.1:50788]], Read from buffer: [0]

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