

# Configuration Manual

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The screenshot shows the cloud.ncirl.ie website with a navigation bar at the top containing links like 'Dumps', 'RIC', 'Moodle sem2', 'Research Tools', 'ML', 'new phone', 'FEC', 'Scalable', 'Nci', 'Cpp', 'Aman', 'SCP-Web App', 'Ric-2', 'Ric-3', 'Sem3', 'Research1', 'Job', and 'SEGA'. The main content area features six cards for different cloud services:

- amazon web services:** Amazon Web Services SSO. AWS Cloud. Access is enabled for Masters in Cloud, Masters in Data Analytics, Masters in Cyber Security, Postgraduate in Cloud, Postgraduate in Data Analytics and BSc(Honours) in Computing. SSO enabled, select cohorts.
- openstack.:** NCI OpenStack. NCI private cloud is OpenStack 'Train'. Select 'NCI Single Sign On' when signing on. OpenStack offers Infrastructure as service cloud, block storage, object storage, data processing, DNS, container services and more. SSO enabled, select cohorts.
- Microsoft Azure:** Azure for Students. Simply verify your student status through your school email address and you are ready to go with \$100 in credit. In order to make the most of this credit remember to turn off virtual machines when you are not using them. Sign in with your student account.
- NCI Azure Lab Services:** Azure Lab Services enables you to quickly set up an environment for your team (for example: development environment, test environment, classroom lab environment).
- OnTheHub®:** NCI Software Webstore. Powered by Kivuto. Students and Faculty can download Microsoft Windows 10 and Office (note: all other MS software has been moved to Azure for Students), there is also student
- IBM Cloud:** IBM Cloud. IBM Cloud is the cloud platform that offers a choice of scalable and flexible resources in one consistent experience. Bringing together APIs and services, IBM Cloud

The screenshot shows the AWS Management Console website. The top navigation bar includes 'AWS' logo, 'Products', 'Solutions', 'Pricing', 'Documentation', 'Learn', 'Partner Network', 'AWS Marketplace', 'Customer Enablement', 'Events', 'Explore More', 'Contact Us', 'Support', 'English', 'My Account', and 'Sign in to the Console'. Below the navigation bar, the main heading is 'AWS Management Console' with the tagline 'Everything you need to access and manage the AWS Cloud — in one web interface'. A 'Log back in' button is visible.

A grid of eight cards highlighting various AWS services and training resources:

- Free AWS Training:** Advance your career with AWS Cloud Practitioner Essentials—a free, six-hour, foundational course.
- AWS Certification:** Propel your career forward with AWS Certification.
- AWS Training:** Free digital courses to help you develop your skills.
- AWS Free Digital Training:** Access 350+ free digital courses with training built by AWS experts.
- Amazon EC2 Supports macOS Big Sur:** Build and run on-demand Apple.
- Introducing Amazon EKS Anywhere:** Create and operate Kubernetes clusters.
- AWS Lambda Container Image Support:**
- Build Mobile and Web Apps Fast:** Add authentication and data syncing with

```
hittranjansharma@ChittranjansAir ~ % eb -h
sh: command not found: eb
hittranjansharma@ChittranjansAir ~ % cd Downloads
hittranjansharma@ChittranjansAir Downloads % ls | grep vinsmoke
in smoke-ric.pem
hittranjansharma@ChittranjansAir Downloads % chmod 400 vinsmoke-ric.pem
hittranjansharma@ChittranjansAir Downloads % ssh -i "vinsmoke-ric.pem" ec2-user@ec2-54-75-103-70.eu-west-1.compute.amazonaws.com
The authenticity of host 'ec2-54-75-103-70.eu-west-1.compute.amazonaws.com (54.75.103.70)' can't be established.
ED25519 key fingerprint is SHA256:r/XDb+RwYQq5Nr8FTJCa6XGq70tzJmswUuyu02sr8nw.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-75-103-70.eu-west-1.compute.amazonaws.com' (ED25519) to the list of known hosts.

#
~\##### Amazon Linux 2023
~~\#####\
~~\###|
~~\#/ ---- https://aws.amazon.com/linux/amazon-linux-2023
~~V~' ' ->
~~~
~~~
~~~
~/m/

ec2-user@ip-172-31-41-237 ~]$
ec2-user@ip-172-31-41-237 ~]$
ec2-user@ip-172-31-41-237 ~]$
ec2-user@ip-172-31-41-237 ~]$ whoami
ec2-user
ec2-user@ip-172-31-41-237 ~]$
```

```
[ec2-user@ip-172-31-41-237 ~]$ sudo service docker start
Redirecting to /bin/systemctl start docker.service
[ec2-user@ip-172-31-41-237 ~]$ sudo docker info
Client:
 Context:    default
 Debug Mode: false
 Plugins:
  buildx: Docker Buildx (Docker Inc., 0.0.0+unknown)

Server:
 Containers: 0
  Running: 0
  Paused: 0
  Stopped: 0
 Images: 0
 Server Version: 20.10.25
 Storage Driver: overlay2
  Backing Filesystem: xfs
  Supports d_type: true
  Native Overlay Diff: true
  userxattr: false
 Logging Driver: json-file
 Cgroup Driver: systemd
 Cgroup Version: 2
 Plugins:
  Volume: local
  Network: bridge host ipvlan macvlan null overlay
  Log: awslogs fluentd gcplogs gelf journald json-file local logentries splunk syslog
 Swarm: inactive
 Runtimes: runc io.containerd.runc.v2 io.containerd.runtime.v1.linux
 Default Runtime: runc
 Init Binary: docker-init
 containerd version: 0cae528dd6cb557f7201036e9f43420650207b58
 runc version: f19387a6bec4944c770f7668ab51c4348d9c2f38
 init version: de40ad0
 Security Options:
  seccomp
   Profile: default
  cgroupns
 Kernel Version: 6.1.38-59.109.amzn2023.x86_64
 Operating System: Amazon Linux 2023
 OSType: linux
 Architecture: x86_64
 CPUs: 2
 Total Memory: 3.813GiB
 Name: ip-172-31-41-237.eu-west-1.compute.internal
 ID: UKIH:CGVJ:MXCR:Q2Z7:CUAJ:VYOM:VYRE:PU40:FWPZ:MLVL:E35W:ARXQ
 Docker Root Dir: /var/lib/docker
```

```

Error response from daemon: manifest for anchore/anchore-engine:latest not found: manifest unknown: manifest unknown
[root@ip-172-31-41-237 ec2-user]# docker pull anchore/engine-cli
Using default tag: latest
latest: Pulling from anchore/engine-cli
296e14ee2414: Pull complete
356f18f3a935: Pull complete
4fa5133bac2d: Pull complete
b904e2e87055: Pull complete
9baa0955e254: Pull complete
314c3ec6c44c: Pull complete
f4e9b7ff3d38: Pull complete
Digest: sha256:ebf5eb3c8bcfa41cd04b75a72d69b836f061b9df208d364124a17421802dda09
Status: Downloaded newer image for anchore/engine-cli:latest
docker.io/anchore/engine-cli:latest
[root@ip-172-31-41-237 ec2-user]#
[root@ip-172-31-41-237 ec2-user]#
[root@ip-172-31-41-237 ec2-user]# docker pull anchore/anchore-engine:latest
Error response from daemon: manifest for anchore/anchore-engine:latest not found: manifest unknown: manifest unknown
[root@ip-172-31-41-237 ec2-user]# docker search anchore/engine
NAME                                DESCRIPTION                                STARS     OFFICIAL   AUTOMATED
anchore/engine-cli                 Image with the Anchore Engine CLI installed 7
anchore/engine-db-preload          Replacement postgres database container imag... 0
anchore/engine-operator            Anchore Engine Helm based operator          0
anchore/engine-db-preload-slim     0
anchore/engine-operator-dev        0
[root@ip-172-31-41-237 ec2-user]# docker pull anchore/anchore-engine:latest
Error response from daemon: manifest for anchore/anchore-engine:latest not found: manifest unknown: manifest unknown
[root@ip-172-31-41-237 ec2-user]# docker pull anchore/anchore-engine:v0.10.0
v0.10.0: Pulling from anchore/anchore-engine
053724d29990: Pull complete
f0ae454850a7: Pull complete
27c044ddd621: Pull complete
ca235c6ac0be: Pull complete
54835ebe481d: Pull complete
4c54788bb3af: Pull complete
7dbdf5edbd18: Pull complete
Digest: sha256:bdeeedf639d70ad1ff5f907ee530adfa8e771f8e5909fd75ec4088250a956b3
Status: Downloaded newer image for anchore/anchore-engine:v0.10.0
docker.io/anchore/anchore-engine:v0.10.0
[root@ip-172-31-41-237 ec2-user]#

```

```

./#/'
est login: Sun Aug 6 20:26:42 2023 from 232.129.78.172
ec2-user@ip-172-31-14-26 ~$ whoami
ec2-user
ec2-user@ip-172-31-14-26 ~$ ls
ec2-user@ip-172-31-14-26 ~$ docker ps
ot permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://N2Fva%2Frun%2Fdocker.sock/v1.24/containers/json": dial unix /var/run/docker.sock: connect: permission denied
ec2-user@ip-172-31-14-26 ~$ sudo yum update -y
est metadata expiration check: 4:39:40 ago on Sun Aug 6 19:42:40 2023.
Dependencies resolved.
Nothing to do.
Complete!
ec2-user@ip-172-31-14-26 ~$ sudo usermod -a -G docker ec2-user
ec2-user@ip-172-31-14-26 ~$ docker ps
ot permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://N2Fva%2Frun%2Fdocker.sock/v1.24/containers/json": dial unix /var/run/docker.sock: connect: permission denied
ec2-user@ip-172-31-14-26 ~$ sudo usermod -a -G docker ec2-user
ec2-user@ip-172-31-14-26 ~$ *O
ec2-user@ip-172-31-14-26 ~$ exit
logout
Connection to ec2-54-195-36-84.eu-west-1.compute.amazonaws.com closed.
hitranjansharna@ChitranjansAIR Downloads % ssh -i "research-sanji.pem" ec2-user@ec2-54-195-36-84.eu-west-1.compute.amazonaws.com
_#_
_#_      Amazon Linux 2023
_#_
_#_      https://aws.amazon.com/linux/amazon-linux-2023
_#_
_#_
_#_
./#/'

```

```

[ec2-user@ip-172-31-14-26 ~]$ sudo yum install -y libxcrypt-compat
Last metadata expiration check: 4:37:24 ago on Sun Aug 6 19:42:40 2023.
Dependencies resolved.
=====
Package                Architecture      Version           Repository        Size
=====
Installing:
libxcrypt-compat       x86_64            4.4.33-7.amzn2023  amazonlinux      92 k
Transaction Summary
-----
Install 1 Package

Total download size: 92 k
Installed size: 198 k
Downloading Packages:
libxcrypt-compat-4.4.33-7.amzn2023.x86_64.rpm

951 kB/s | 92 kB  00:00
-----
Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing                :
  Installing libxcrypt-compat-4.4.33-7.amzn2023.x86_64
  Running scriptlet: libxcrypt-compat-4.4.33-7.amzn2023.x86_64
  Verifying                : libxcrypt-compat-4.4.33-7.amzn2023.x86_64

1/1
1/1
1/1
1/1
Installed:
libxcrypt-compat-4.4.33-7.amzn2023.x86_64
Complete!
[ec2-user@ip-172-31-14-26 ~]$ docker-compose --version
docker-compose version 1.29.2, build 0beec4ac

```

```

Dependencies resolved.
-----
Package                Architecture          Version                Repository             Size
-----
Installing:
git                    x86_64                2.40.1-1.amzn2023.0.1  amazonlinux           57 k
Installing dependencies:
git-core              x86_64                2.40.1-1.amzn2023.0.1  amazonlinux           4.3 M
git-core-doc         noarch                2.40.1-1.amzn2023.0.1  amazonlinux           2.6 M
perl-Error            noarch                1:0.17029-5.amzn2023.0.2  amazonlinux           43 k
perl-File-Find       noarch                1:37-477.amzn2023.0.5    amazonlinux           26 k
perl-git             noarch                2.40.1-1.amzn2023.0.1  amazonlinux           45 k
perl-TermReadKey     x86_64                2.38-9.amzn2023.0.2     amazonlinux           36 k
perl-lib             x86_64                0.65-477.amzn2023.0.5    amazonlinux           15 k
-----
Transaction Summary
-----
Install 8 Packages

Total download size: 7.1 M
Installed size: 34 M
Downloading Packages:
(1/8): perl-lib-0.65-477.amzn2023.0.5.x86_64.rpm                249 kB/s | 15 kB  00:00
(2/8): perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64.rpm          532 kB/s | 36 kB  00:00
(3/8): git-2.40.1-1.amzn2023.0.1.x86_64.rpm                    1.6 MB/s | 57 kB  00:00
(4/8): perl-git-2.40.1-1.amzn2023.0.1.noarch.rpm               1.0 MB/s | 45 kB  00:00
(5/8): perl-Error-0.17029-5.amzn2023.0.2.noarch.rpm            2.7 MB/s | 43 kB  00:00
(6/8): git-core-2.40.1-1.amzn2023.0.1.x86_64.rpm              28 MB/s | 4.2 MB  00:00
(7/8): perl-File-Find-1.37-477.amzn2023.0.5.noarch.rpm         681 kB/s | 26 kB  00:00
(8/8): git-core-doc-2.40.1-1.amzn2023.0.1.noarch.rpm           31 MB/s | 2.6 MB  00:00
-----
Total
-----
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Installing :
  git-core-2.40.1-1.amzn2023.0.1.x86_64                1/1
Installing : git-core-doc-2.40.1-1.amzn2023.0.1.noarch  1/8
Installing : perl-File-Find-1.37-477.amzn2023.0.5.noarch 3/8
Installing : perl-Error-0.17029-5.amzn2023.0.2.noarch  4/8
Installing : perl-lib-0.65-477.amzn2023.0.5.x86_64     5/8
Installing : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64 6/8
Installing : perl-git-2.40.1-1.amzn2023.0.1.noarch     7/8
Installing : git-2.40.1-1.amzn2023.0.1.x86_64         8/8
Running scriptlet: git-2.40.1-1.amzn2023.0.1.x86_64  8/8
Verifying  : git-TermReadKey-2.38-9.amzn2023.0.2.x86_64 1/8
Verifying  : git-core-2.40.1-1.amzn2023.0.1.x86_64   2/8
Verifying  : perl-lib-0.65-477.amzn2023.0.5.x86_64   3/8
Verifying  : git-2.40.1-1.amzn2023.0.1.x86_64       4/8
Verifying  : perl-git-2.40.1-1.amzn2023.0.1.noarch   5/8
Verifying  : perl-Error-0.17029-5.amzn2023.0.2.noarch 6/8
Verifying  : git-core-doc-2.40.1-1.amzn2023.0.1.noarch 7/8
Verifying  : perl-File-Find-1.37-477.amzn2023.0.5.noarch 8/8
-----
Installed:
git-2.40.1-1.amzn2023.0.1.x86_64      git-core-2.40.1-1.amzn2023.0.1.x86_64      git-core-doc-2.40.1-1.amzn2023.0.1.noarch      perl-Error-0.17029-5.amzn2023.0.2.noarch      perl-File-Find-1.37-477.amzn2023.0.5.noarch
perl-git-2.40.1-1.amzn2023.0.1.noarch  perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64  perl-lib-0.65-477.amzn2023.0.5.x86_64
-----
Complete!

```

```

[ec2-user@ip-172-31-14-26 ~]$ git clone https://github.com/anchore/anchore-engine.git
Cloning into 'anchore-engine'...
remote: Enumerating objects: 30336, done.
remote: Total 30336 (delta 0), reused 0 (delta 0), pack-reused 30336
Receiving objects: 100% (30336/30336), 182.52 MiB | 22.67 MiB/s, done.
Resolving deltas: 100% (19680/19680), done.
Updating files: 100% (1421/1421), done.
[ec2-user@ip-172-31-14-26 ~]$ cd anchore-engine
[ec2-user@ip-172-31-14-26 anchore-engine]$ cd ..
[ec2-user@ip-172-31-14-26 ~]$ ls
anchore-engine  docker-compose.yaml
[ec2-user@ip-172-31-14-26 ~]$ cd anchore-engine
[ec2-user@ip-172-31-14-26 anchore-engine]$

```

```

anchore-engine docker-compose.yaml sql-scripts
[ec2-user@ip-172-31-14-26 ~]$ cd sql-scripts
[ec2-user@ip-172-31-14-26 sql-scripts]$ ls
[ec2-user@ip-172-31-14-26 sql-scripts]$ nano init_anchore_db.sql
[ec2-user@ip-172-31-14-26 sql-scripts]$ cd
[ec2-user@ip-172-31-14-26 ~]$ ls
anchore-engine  docker-compose.yaml  sql-scripts
[ec2-user@ip-172-31-14-26 ~]$ nano Dockerfile
[ec2-user@ip-172-31-14-26 ~]$ docker build -t my-postgres-image .
Sending build context to Docker daemon 405.6MB
Step 1/2 : FROM postgres:9
----> 027ccf656dc1
Step 2/2 : COPY ./sql-scripts/ /docker-entrypoint-initdb.d/
----> 6f88098e8ee2
Successfully built 6f88098e8ee2
Successfully tagged my-postgres-image:latest

```

```
8329d3fad33e drupal "docker-php-entrypoi..." 20 hours ago
[ec2-user@ip-172-31-14-26 ~]$ docker exec -it ec2-user_db_1 psql -U postgres
psql (9.6.24)
Type "help" for help.
```

```
postgres=# \dt
          List of relations
 Schema | Name      | Type  | Owner
-----+-----+-----+-----
 public | anchore  | table | postgres
(1 row)
```

```
[ec2-user@ip-172-31-14-26 ~]$ netstat -tuln | grep 8228
tcp        0      0 0.0.0.0:8228 0.0.0.0:*          LISTEN
tcp6       0      0 :::8228    :::*                LISTEN
```

```
[ec2-user@ip-172-31-14-26 ~]$ docker images
REPOSITORY          TAG         IMAGE ID         CREATED          SIZE
my-postgres-image   latest     6f88098e8ee2    34 hours ago    200MB
drupal               latest     18a057584567    5 days ago      591MB
anchore/anchore-engine-dev latest     96be83d3b666    14 months ago   896MB
postgres            9         027ccf656dc1    18 months ago   200MB
anchore/grype       v0.17     c3d1590b14b6    23 months ago   20.1MB
anchore/anchore-engine v0.10.0  0af969625acf    2 years ago     654MB
[ec2-user@ip-172-31-14-26 ~]$ docker run -it --rm anchore/grype:v0.17 alpine:latest
✓ Vulnerability DB [updated]
New version of grype is available: 0.65.1
✓ Parsed image
✓ Cataloged packages [15 packages]
✓ Scanned image [0 vulnerabilities]
No vulnerabilities found
```

```
[ec2-user@ip-172-31-14-26 ~]$ curl -sL https://raw.githubusercontent.com/aquasecurity/trivy
aquasecurity/trivy info checking GitHub for latest tag
aquasecurity/trivy info found version: 0.44.0 for v0.44.0/Linux/64bit
aquasecurity/trivy info installed /usr/local/bin/trivy
[ec2-user@ip-172-31-14-26 ~]$
```

```
ec2-user@ip-172-31-14-26 ~]$ nano Dockerfile
ec2-user@ip-172-31-14-26 ~]$ docker build -t my-drupal:latest .
ending build context to Docker daemon 809.7MB
step 1/3 : FROM drupal@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63
----> 18a057584567
step 2/3 : RUN useradd -m nonrootuser
----> Running in cc034fda82a0
moving intermediate container cc034fda82a0
----> 1d5258a58c29
step 3/3 : USER nonrootuser
----> Running in 053d5c58c20d
moving intermediate container 053d5c58c20d
----> f34a51be045a
successfully built f34a51be045a
successfully tagged my-drupal:latest
tagging drupal@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63 as drupal:latest
```

```

ec2-user@ip-172-31-14-26 ~]$ trivy image drupal
223-08-08T18:37:49.011Z INFO Vulnerability scanning is enabled
223-08-08T18:37:49.011Z INFO Secret scanning is enabled
223-08-08T18:37:49.011Z INFO If your scanning is slow, please try '--scanners vuln' to disable secret scanning
223-08-08T18:37:49.012Z INFO Please see also https://aquasecurity.github.io/trivy/v0.44/docs/scanner/secret/#recommendation for faster secret detection
223-08-08T18:38:53.566Z INFO Detected OS: debian
223-08-08T18:38:53.566Z INFO Detecting Debian vulnerabilities...
223-08-08T18:38:53.756Z INFO Number of language-specific files: 1
223-08-08T18:38:53.756Z INFO Detecting composer vulnerabilities...

```

```

rupal (debian 12.1)
=====
total: 308 (UNKNOWN: 0, LOW: 251, MEDIUM: 38, HIGH: 19, CRITICAL: 0)

```

Library	Vulnerability	Severity	Status	Installed Version	Fixed Version	Title
apache2	CVE-2001-1534	LOW	affected	2.4.67-2		mod_usertrack in Apache 1.3.11 through 1.3.20 generates session ID's u ... <a href="https://avd.aquasec.com/nvd/cve-2001-1534">https://avd.aquasec.com/nvd/cve-2001-1534</a>
	CVE-2003-1307					The mod_php module for the Apache HTTP Server allows local users with... <a href="https://avd.aquasec.com/nvd/cve-2003-1307">https://avd.aquasec.com/nvd/cve-2003-1307</a>
	CVE-2003-1580					The Apache HTTP Server 2.0.44, when DNS resolution is enabled for clie... <a href="https://avd.aquasec.com/nvd/cve-2003-1580">https://avd.aquasec.com/nvd/cve-2003-1580</a>
	CVE-2003-1581					httpd: Injection of arbitrary text into log files when DNS resolution is... <a href="https://avd.aquasec.com/nvd/cve-2003-1581">https://avd.aquasec.com/nvd/cve-2003-1581</a>
	CVE-2007-0086					The Apache HTTP Server, when accessed through a TCP connection with a... <a href="https://avd.aquasec.com/nvd/cve-2007-0086">https://avd.aquasec.com/nvd/cve-2007-0086</a>
	CVE-2007-1743					suexec in Apache HTTP Server (httpd) 2.2.3 does not verify combination ..... <a href="https://avd.aquasec.com/nvd/cve-2007-1743">https://avd.aquasec.com/nvd/cve-2007-1743</a>
	CVE-2007-3303					Apache httpd 2.0.59 and 2.2.4, with the Prefork MPM module, allows loc... <a href="https://avd.aquasec.com/nvd/cve-2007-3303">https://avd.aquasec.com/nvd/cve-2007-3303</a>
	CVE-2008-0456					httpd: mod_negotiation CRLF injection via untrusted file names in directories with MultiViews... <a href="https://avd.aquasec.com/nvd/cve-2008-0456">https://avd.aquasec.com/nvd/cve-2008-0456</a>
	apache2-bin	CVE-2001-1534				
CVE-2003-1307						The mod_php module for the Apache HTTP Server allows local users with... <a href="https://avd.aquasec.com/nvd/cve-2003-1307">https://avd.aquasec.com/nvd/cve-2003-1307</a>

```

ec2-user@ip-172-31-14-26 ~]$ docker pull opensuse/clair
sing default tag: latest
atest: Pulling from opensuse/clair
c0ae60e0f8d: Pull complete
d38bee0779f: Pull complete
igest: sha256:80fef0401ac77fc78d6e21260a59e28553ba3eab4cc3b9400e7dd973a151709
tatus: Downloaded newer image for opensuse/clair:latest
ocker.io/opensuse/clair:latest
ec2-user@ip-172-31-14-26 ~]$ docker run -d -e POSTGRES_DB=clair -e POSTGRES_USER=clair -e POSTGRES_PASSWORD=clair --name clairdb postgres:latest
nable to find image 'postgres:latest' locally
atest: Pulling from library/postgres
48e0aadf75a: Already exists
715c8c55756: Pull complete
11a1dc32c8c: Pull complete
29e8ba9d17c: Pull complete
8af88a8afb0: Pull complete
74279c188d9: Pull complete
e3e5bf64fd2: Pull complete
62a2c2d2ce5: Pull complete
ba91ca3c7a3: Pull complete
4a24cdf2433: Pull complete
20f8a8df5c: Pull complete
0731dd084c3: Pull complete
361da6a228e: Pull complete
igest: sha256:8775adb39f0db45cf4cbb3601380312ee5e9c4f53af0f89b7dc5dc4c9a78e4e8
tatus: Downloaded newer image for postgres:latest
/423d0db285f75f42a202d4f4c4e30082828f4c213541348d5d44ca9eb1a0

```

```

dockerfile anchore anchore-engine clairctl config.yaml docker-compose-dev.yaml docker-compose.yaml sql-scripts
[ec2-user@ip-172-31-14-26 ~]$ export DOCKER_CONTENT_TRUST=1
docker pull drupal:latest
Pull (1 of 1): drupal:latest@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63
docker.io/library/drupal@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63: Pulling from library/drupal
Digest: sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63
Status: Image is up to date for drupal@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63
Tagging drupal@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63 as drupal:latest
docker.io/library/drupal:latest
[ec2-user@ip-172-31-14-26 ~]$

```

```

successfully built 134a51be043a
successfully tagged my-drupal:latest
Tagging drupal@sha256:44f08af9a7489fd60583d31c1224210100ff037ab2ab60d0082801f893df9f63 as drupal:latest
ec2-user@ip-172-31-14-26 ~]$ docker run -d my-drupal:latest
docker: you are not authorized to perform this operation: server returned 401.
see 'docker run --help'

```

```

ec2-user@ip-172-31-14-26 ~]$ sestatus
Elinux status:          enabled
Elinuxfs mount:        /sys/fs/selinux
Elinux root directory: /etc/selinux
oaded policy name:      targeted
urrent mode:           permissive
ode from config file:  permissive
olicy MLS status:      enabled
olicy deny_unknown status: allowed
emory protection checking: actual (secure)
ax kernel policy version: 33
ec2-user@ip-172-31-14-26 ~]$ sudo setenforce 1
ec2-user@ip-172-31-14-26 ~]$ sudo nano /etc/selinux/config
ec2-user@ip-172-31-14-26 ~]$ sudo reboot
ec2-user@ip-172-31-14-26 ~]$ Connection to ec2-3-250-83-20.eu-west-1.compute.amazonaws.com closed by remote host.
Connection to ec2-3-250-83-20.eu-west-1.compute.amazonaws.com closed.
hittranjansharma@ChittranjansAir Downloads % ssh -i "research-sanji.pem" ec2-user@ec2-3-250-83-20.eu-west-1.compute.amazonaws.com

```

```

#_
~\  ###_  Amazon Linux 2023
~~ \  ####\
~~  \  ###|
~~   \  #/
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```

```

ast login: Wed Aug 9 16:12:50 2023 from 212.129.82.27
[[A^[B^[A[ec2-user@ip-172-31-14-26 ~]$ sestatus
Elinux status:          enabled
Elinuxfs mount:        /sys/fs/selinux
Elinux root directory: /etc/selinux
oaded policy name:      targeted
urrent mode:           enforcing
ode from config file:  enforcing
olicy MLS status:      enabled
olicy deny_unknown status: allowed
emory protection checking: actual (secure)
ax kernel policy version: 33

```

```

[ec2-user@ip-172-31-14-26 ~]$ sudo chown ec2-user:ec2-user /var/tmp/trivy
[ec2-user@ip-172-31-14-26 ~]$ export TMPDIR=/var/tmp/trivy
[ec2-user@ip-172-31-14-26 ~]$ trivy image drupal
2023-08-09T16:26:09.836Z       INFO    Vulnerability scanning is enabled
2023-08-09T16:26:09.836Z       INFO    Secret scanning is enabled
2023-08-09T16:26:09.836Z       INFO    If your scanning is slow, please try '--scanners vuln' to
2023-08-09T16:26:09.836Z       INFO    Please see also https://aquasecurity.github.io/trivy/v0.44
2023-08-09T16:26:48.153Z       INFO    Detected OS: debian
2023-08-09T16:26:48.154Z       INFO    Detecting Debian vulnerabilities...
2023-08-09T16:26:48.371Z       INFO    Number of language-specific files: 1
2023-08-09T16:26:48.377Z       INFO    Detecting composer vulnerabilities...

drupal (debian 12.1)
=====
Total: 312 (UNKNOWN: 2, LOW: 251, MEDIUM: 40, HIGH: 19, CRITICAL: 0)

```

Library	Vulnerability	Severity	Status	Installed Version	Fix

Your account has been authenticated. Snyk is now ready to be used.

```

[ec2-user@ip-172-31-14-26 ~]$ █

```



```

dockerfile  anchors  anchors-engine  classictl  config.yaml  docker-compose-dev.yaml  docker-compose.yaml  sql-scripts
[ec2-user@ip-172-31-14-26 ~]$ curl https://omnitruck.chef.io/install.sh | sudo bash -s -- -P chef-workstation
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload  Total   Spent    Left   Speed
100 23526  100 23526    0     0  274k    0  --:--:-- --:--:-- --:--:-- 276k
el 6 x86_64
Getting information for chef-workstation stable for el...
Downloading https://omnitruck.chef.io/stable/chef-workstation/metadata?v=&p=el&pv=6&m=x86_64
to file /tmp/install.sh.3630/metadata.txt
trying wget...
sha1      a80db55f4df1dc0e3277daac19d1fa013b5f405f
sha256    ccdfdae1da7fbcc09e1bde7a7af874056dcdded81d77c98e94a54d72b99c894ae
url       https://packages.chef.io/files/stable/chef-workstation/20.11.180/el/6/chef-workstation-20.11.180-1.el6.x86_64.rpm
version 20.11.180
Downloaded metadata file looks valid...
Downloading https://packages.chef.io/files/stable/chef-workstation/20.11.180/el/6/chef-workstation-20.11.180-1.el6.x86_64.rpm
to file /tmp/install.sh.3630/chef-workstation-20.11.180-1.el6.x86_64.rpm
trying wget...
Comparing checksum with sha256sum...

WARNING WARNING WARNING WARNING WARNING WARNING WARNING WARNING WARNING WARNING

You are installing a package without a version pin. If you are installing
on production servers via an automated process this is DANGEROUS and you will
be upgraded without warning on new releases, even to new major releases.
Letting the version float is only appropriate in test, development or
CI/CD environments.

WARNING WARNING WARNING WARNING WARNING WARNING WARNING WARNING WARNING WARNING

Installing chef-workstation
Installing with rpm...
warning: /tmp/install.sh.3630/chef-workstation-20.11.180-1.el6.x86_64.rpm: Header V4 DSA/SHA1 Signature, key ID 83ef826a: NOKEY
Verifying... ##### [100%]
Preparing... ##### [100%]
Updating / installing...
 1:chef-workstation-20.11.180-1.el6 ##### [100%]

To run the Chef Workstation App, some additional dependencies must be installed.
Using your platforms package manager to install the 'electron' package is
the easiest way to meet the dependency requirements.

You can then launch the App by running 'chef-workstation-app'.
The App will then be available in the system tray.

Thank you for installing Chef Workstation!
You can find some tips on getting started at https://docs.chef.io/workstation/

```

```

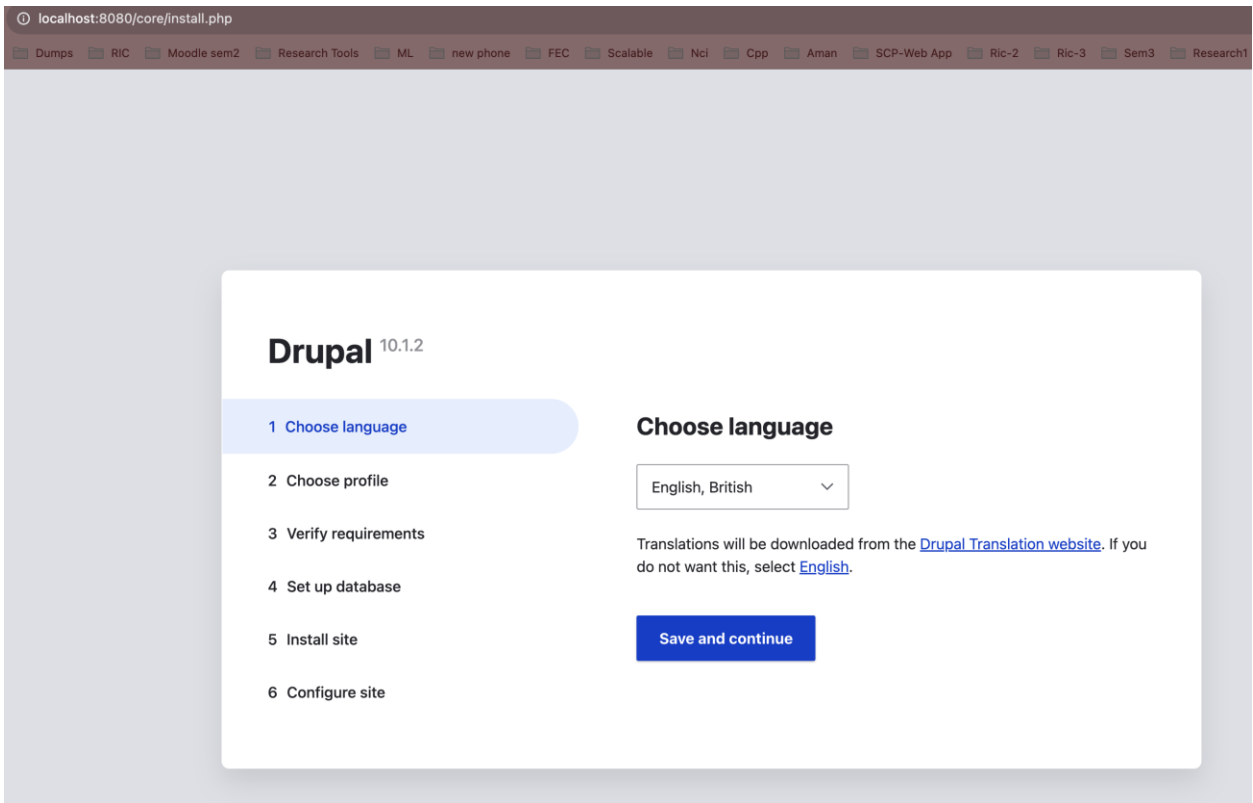
[ec2-user@ip-172-31-14-26 ~]$ chef --version
Chef Workstation version: 20.11.180
Chef Infra Client version: 16.6.14
Chef InSpec version: 4.23.15
Chef CLI version: 3.0.33
Chef Habitat version: 1.6.56
Test Kitchen version: 2.7.2
Cookstyle version: 7.2.1

```

```

[ec2-user@ip-172-31-14-26 my_cookbook]$ docker build -t my-drupal-with-chef .
Sending build context to Docker daemon 109.6kB
Step 1/3 : FROM drupal:latest
--> 18a057584567
Step 2/3 : RUN curl https://omnitruck.chef.io/install.sh | bash -s -- -P chef-workstation
--> Using cache
--> 0105c9a37731
Step 3/3 : COPY . /my_cookbook
--> 4bd9c8951026
Successfully built 4bd9c8951026
Successfully tagged my-drupal-with-chef:latest

```



```

end

System Info:
-----
chef_version=16.6.14
platform=amazon
platform_version=2023
ruby=ruby 2.7.2p137 (2020-10-01 revision 5445e04352) [x86_64-linux]
program_name=/usr/bin/chef-apply
executable=/opt/chef-workstation/bin/chef-apply

[2023-08-10T00:34:00+00:00] FATAL: Stacktrace dumped to /home/ec2-user/.chef/cache/chef-stacktrace.out
[2023-08-10T00:34:00+00:00] FATAL: Please provide the contents of the stacktrace.out file if you file a bug report
[2023-08-10T00:34:00+00:00] FATAL: Mixlib::ShellOut::ShellCommandFailed: dnf_package[patch] ((chef-apply cookbook)::(chef-apply recip
d '1'
---- Begin output of ["dnf", "-y", "install", "patch-0:2.7.6-14.amzn2023.0.2.x86_64"] ----
STDOUT:
STDERR: Error: This command has to be run with superuser privileges (under the root user on most systems).
---- End output of ["dnf", "-y", "install", "patch-0:2.7.6-14.amzn2023.0.2.x86_64"] ----
Ran ["dnf", "-y", "install", "patch-0:2.7.6-14.amzn2023.0.2.x86_64"] returned 1
[ec2-user@ip-172-31-14-26 ~]$ sudo chef-apply upgrade_patch.rb
+-----+
            Chef License Acceptance

Before you can continue, 2 product licenses
must be accepted. View the license at
https://www.chef.io/end-user-license-agreement/

Licenses that need accepting:
 * Chef Infra Client
 * Chef InSpec

Do you accept the 2 product licenses (yes/no)?

> yes

Persisting 2 product licenses...
✔ 2 product licenses persisted.

+-----+
[2023-08-10T00:37:13+00:00] ERROR: shard_seed: Failed to get dmi property serial_number: is dmidecode installed?
Recipe: (chef-apply cookbook)::(chef-apply recipe)
 * dnf_package[patch] action upgrade
   - upgrade(allow_downgrade) package patch from uninstalled to 0:2.7.6-14.amzn2023.0.2.x86_64

```

```

ec2-user@ip-172-31-14-26 ~$ sudo apt-get install apparmor apparmor-utils -y
sudo apt-get: command not found
ec2-user@ip-172-31-14-26 ~$ sudo yum list installed | grep apparmor
ec2-user@ip-172-31-14-26 ~$ sudo yum install apparmor apparmor-utils -y
Last metadata expiration check: 8:25:18 ago on Thu Aug 10 16:19:01 2023.
No match for argument: apparmor
No match for argument: apparmor-utils
Error: Unable to find a match: apparmor apparmor-utils
ec2-user@ip-172-31-14-26 ~$ sudo yum install -y git make gcc-c++ bison flex python3 libtool automake
Last metadata expiration check: 8:25:18 ago on Thu Aug 10 16:19:01 2023.
Package git-2.40.5-1.amzn2023.0.1.x86_64 is already installed.
Package python3-3.9.16-1.amzn2023.0.3.x86_64 is already installed.
Dependencies resolved.
=====
Package                               Architecture      Version           Repository        S
-----
Installing:
automake                               noarch            1.16.5-9.amzn2023.0.3  amazonlinux      67
bison                                  x86_64            3.7.4-2.amzn2023.0.2  amazonlinux      92
flex                                   x86_64            2.6.4-7.amzn2023.0.2  amazonlinux      31
gcc-c++                                x86_64            11.3.1-4.amzn2023.0.3  amazonlinux      1
libtool                                 x86_64            2.4.7-1.amzn2023.0.3  amazonlinux      59
make                                    x86_64            1.4.3-5.amzn2023.0.2  amazonlinux      53
Installing dependencies:
anubian-docs                           noarch            10.93-1.amzn2023.0.1  amazonlinux      9
anubian-plugin-gcc                      x86_64            10.93-1.amzn2023.0.1  amazonlinux      88
autocoref                               noarch            2.69-36.amzn2023.0.3  amazonlinux      66
egg                                       x86_64            11.3.1-4.amzn2023.0.3  amazonlinux      1
emacs-filesystem                         noarch            1:28-2-3.amzn2023.0.6  amazonlinux      9
gc                                        x86_64            8.0.4-5.amzn2023.0.2  amazonlinux      10
gcc                                       x86_64            11.3.1-4.amzn2023.0.3  amazonlinux      3
glibc-devel                              x86_64            2.34-52.amzn2023.0.3  amazonlinux      4
glibc-headers-x86                       x86_64            2.34-52.amzn2023.0.3  amazonlinux      44
guit22                                   x86_64            2.2.7-2.amzn2023.0.2  amazonlinux      6
kernel-headers                           x86_64            6.1.88-69.109.amzn2023  amazonlinux      1
libmpc                                    x86_64            1.2.1-2.amzn2023.0.2  amazonlinux      6
libstdc++-devel                          x86_64            11.3.1-4.amzn2023.0.3  amazonlinux      2
libtool-ltdl                             x86_64            2.4.7-1.amzn2023.0.3  amazonlinux      3
libxcrypt-devel                          x86_64            4.4.33-7.amzn2023    amazonlinux      3
mk                                         x86_64            1.4.19-2.amzn2023.0.2  amazonlinux      29
perl-9                                    x86_64            1.88-477.amzn2023.0.5  amazonlinux      18
perl-Data-Dumper                         x86_64            2.174-468.amzn2023.0.2  amazonlinux      5
perl-File-Compare                        noarch            1:180-688-677.amzn2023.0.5  amazonlinux      1
perl-File-Copy                            noarch            2.34-477.amzn2023.0.5  amazonlinux      2
perl-Thread-Queue                        noarch            3.14-455.amzn2023.0.2  amazonlinux      2
perl-threads                              x86_64            1:2.05-458.amzn2023.0.3  amazonlinux      5
perl-threads-shared                      x86_64            1.61-458.amzn2023.0.2  amazonlinux      4
Transaction Summary
-----
Install 29 Packages
Total download size: 78 M
Installed size: 222 M
Downloading Packages:
(1/29): bison-3.7.4-2.amzn2023.0.2.x86_64.rpm 8.8 MB/s | 925 kB 00:00
(2/29): flex-2.6.4-7.amzn2023.0.2.x86_64.rpm 2.2 MB/s | 310 kB 00:00

```

```

cat: /etc/ssh/sshd_config: No such file or directory
ubuntu@ip-172-31-1-29:~$ docker exec -it drupal-instance touch /tmp/disallowed.txt
ubuntu@ip-172-31-1-29:~$ docker exec -it drupal-instance ls /tmp/
disallowed.txt
ubuntu@ip-172-31-1-29:~$ sudo aa-status
apparmor module is loaded.

```

