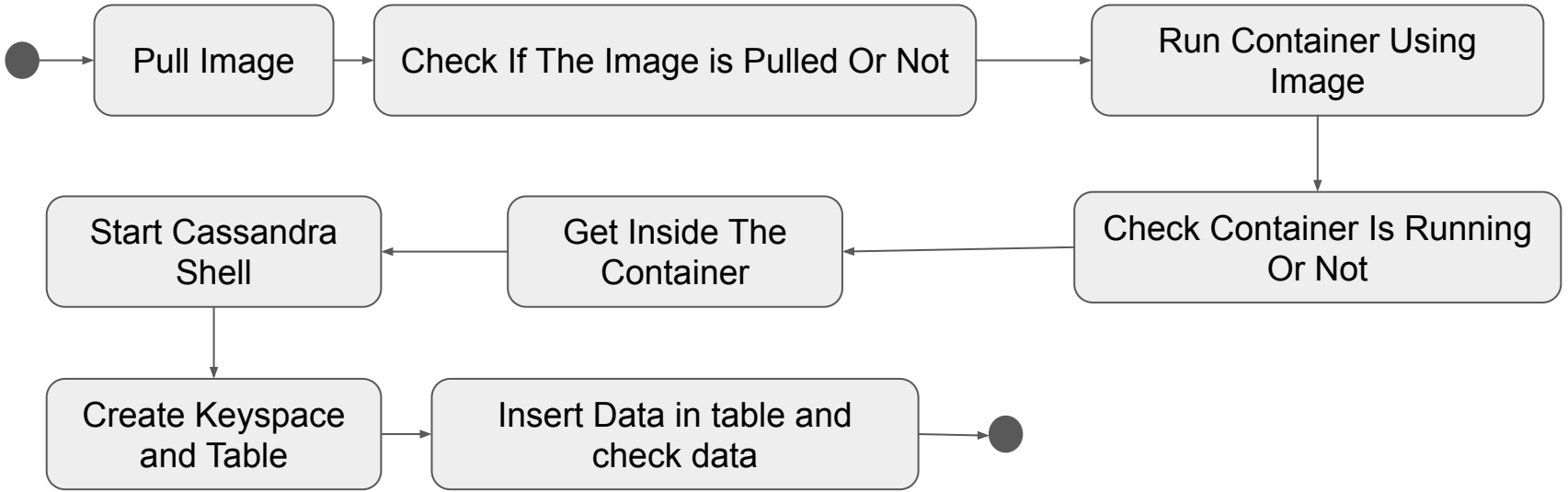
Install Cassandra Using Docker

You will Learn

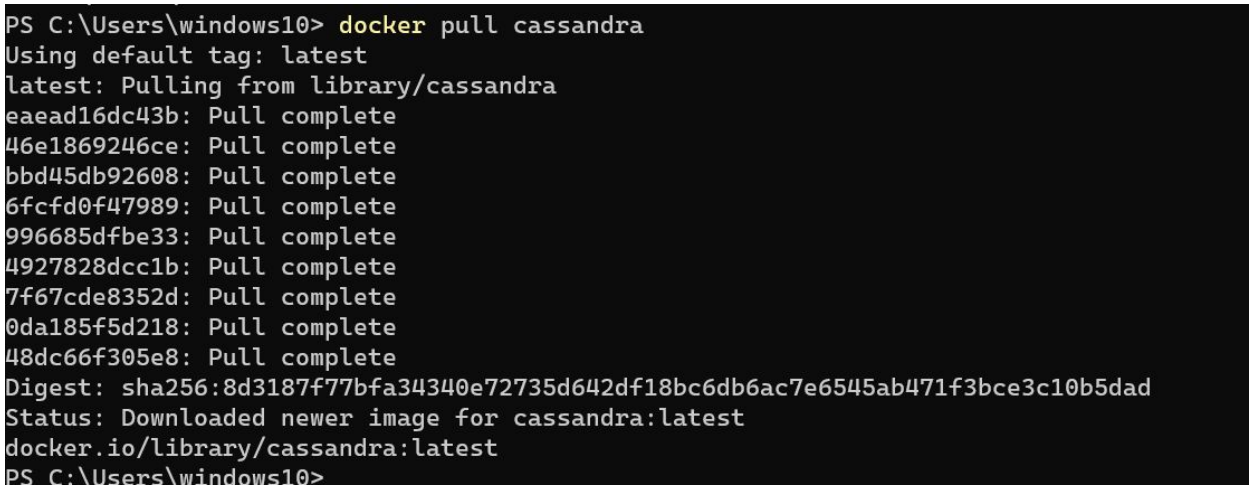
- Pull Image
- Run Container
- Check for running containers
- Enter into a container
- Start Cassandra Shell
- Create Keyspace & Table
- Insert data in the table and check data

Workflow


Pull Image
Check If The Image is Pulled Or Not
Run Container Using Image
Check Container Is Running Or Not
Get Inside The Container
Start Cassandra Shell
Create Keyspace and Table
Insert Data in table and check data

Pull Image

- docker pull cassandra



Check If The Image Is Pulled Or Not

- docker images

```
PS C:\Users\windows10> docker images
REPOSITORY                    TAG       IMAGE ID       CREATED         SIZE
cassandra                     latest    5b647422e184   3 weeks ago     353MB
apache/nifi                   latest    548738cd2d3c   7 weeks ago     1.84GB
mysql                         latest    7e7e458be53c   4 months ago    444MB
gcr.io/k8s-minikube/kicbase   v0.0.32   ff7b11088f07   5 months ago    1.15GB
PS C:\Users\windows10>
```

Run Container Using Image

- docker run -p 7000:7000 -p 7001:7001 -p 7199:7199 -p 9042:9042 -p 9160:9160 --name cassandra -d cassandra:latest

```
PS C:\Users\windows10>
PS C:\Users\windows10> docker run -p 7000:7000 -p 7001:7001 -p 7199:7199 -p 9042:9042 -p 9160:9160 --name cassandra -d cassandra:latest
7ec53a550166ed4584413671d27329f11306c120cb9a12658c33af554c5f1189
PS C:\Users\windows10>
PS C:\Users\windows10>
PS C:\Users\windows10>
```

Check Container Is Running Or Not

- docker ps

```
PS C:\Users\windows10> docker ps
CONTAINER ID   IMAGE              COMMAND                  CREATED              STATUS              PORTS
                                                           NAMES
7ec53a550166   cassandra:latest   "docker-entrypoint.s…"   About a minute ago   Up About a minute   0.0.0.0:7000-7001->7000-7001/tcp, 0.0.0.0:719
9->7199/tcp, 0.0.0.0:9042->9042/tcp, 0.0.0.0:9160->9160/tcp   cassandra
PS C:\Users\windows10>
PS C:\Users\windows10>
```

Get Inside The Container

- docker exec -it 1595491161d0 bash

```
PS C:\Users\windows10>
PS C:\Users\windows10> docker exec -it 1595491161d0 bash
root@1595491161d0:/#
root@1595491161d0:/#
```

Start cqlsh (cassandra shell)

- cqlsh

```
PS C:\Users\windows10>
PS C:\Users\windows10> docker exec -it 7ec53a550166 bash
root@7ec53a550166:/#
root@7ec53a550166:/#
root@7ec53a550166:/#
root@7ec53a550166:/# ls
bin  boot  dev  etc  home  lib  lib32  lib64  libx32  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@7ec53a550166:/#
root@7ec53a550166:/#
root@7ec53a550166:/# cqlsh
Connected to Test Cluster at 127.0.0.1:9042
[cqlsh 6.0.0 | Cassandra 4.0.7 | CQL spec 3.4.5 | Native protocol v5]
Use HELP for help.
cqlsh>
cqlsh>
```

Create & Describe Keyspace

- **Create Keyspace:** CREATE KEYSPACE techframer WITH replication = {'class':'SimpleStrategy', 'replication_factor' : 1};
- **Describe Keyspace:** DESC KEYSPACES

```
cqlsh>
cqlsh>
cqlsh> CREATE KEYSPACE techframer WITH replication = {'class':'SimpleStrategy', 'replication_factor' : 1};
cqlsh>
cqlsh> DESC KEYSPACES

system       system_distributed  system_traces  system_virtual_schema
system_auth  system_schema       system_views   techframer

cqlsh>
cqlsh>
```

Create Table

- **Create Table:** CREATE TABLE student(student_id int PRIMARY KEY, student_name text, student_city text, student_fees varint, student_phone varint);

```
cqlsh> use techframer;
cqlsh:techframer>
cqlsh:techframer>
cqlsh:techframer> CREATE TABLE student(
                ...     student_id int PRIMARY KEY,
                ...     student_name text,
                ...     student_city text,
                ...     student_fees varint,
                ...     student_phone varint
                ...     );
cqlsh:techframer>
```

Add & Check Data

- **Select Data:** SELECT * FROM student;
- **Insert Data:** INSERT INTO student (student_id, student_fees, student_name) VALUES(1,5000, 'Ajeet');

```
cqlsh:techframer>
cqlsh:techframer> SELECT * FROM student;

 student_id | student_city | student_fees | student_name | student_phone
------------+--------------+--------------+--------------+---------------

(0 rows)
cqlsh:techframer>
cqlsh:techframer> INSERT INTO student (student_id, student_fees, student_name) VALUES(1,5000, 'Ajeet');
cqlsh:techframer>
cqlsh:techframer> SELECT * FROM student;

 student_id | student_city | student_fees | student_name | student_phone
------------+--------------+--------------+--------------+---------------
          1 |         null |         5000 |        Ajeet |          null

(1 rows)
cqlsh:techframer>
```

Thank You