Lab: Scavenge

version: 1.01

Overview

In this lab you will:

1. Start a 3 node insecure cluster of EventStoreDB
2. Generate 5 streams with 100 events each appended to streams with maxCount set to 2
3. Using the admin webui run scavenge on the followers
4. Submit a http post request to lower the priority of the leader node
5. Submit an http post request to resign the leader
6. Using the webui run scavenge on the former leader

Notes

For simpler operation this lab uses insecure clusters.

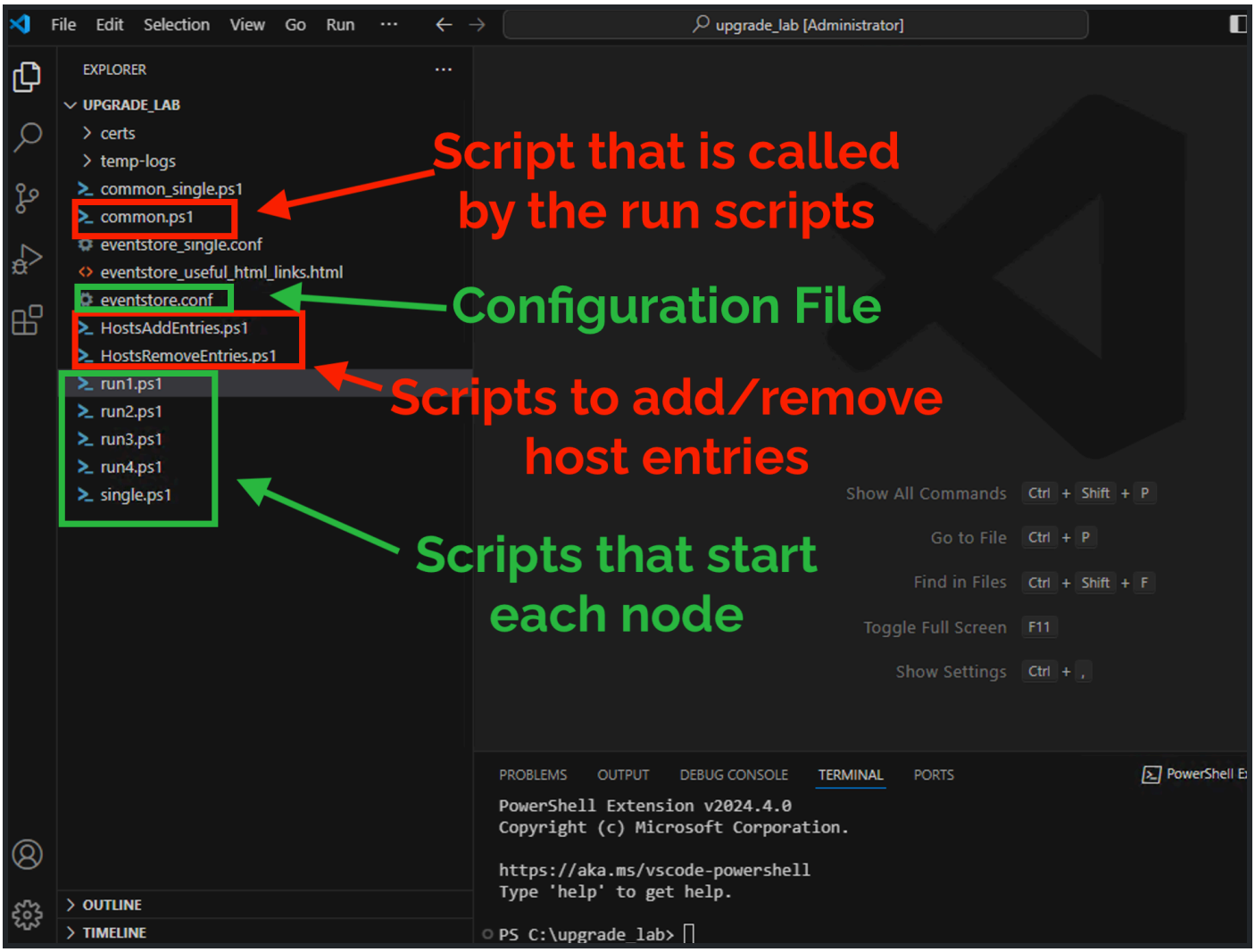
This Lab uses the same folder and scripts to start the 3 node cluster that the upgrade lab uses.

Location of resources:

- `C:\upgrade_lab` contains the scripts that start the EventStoreDB nodes
- `C:\old` contains an older version of EventStoreDB
- `C:\new` contains a newer version of EventStoreDB

Step 1: Review the contents of the directory

Open the directory C:_lab in vscode to review the contents.



Review, but do not edit the contents of run1.ps1

Each of the `run1.ps1`, `run2.ps1`, `run3.ps1` set some environment variables before calling `common.ps1`

`common.ps1` actually starts the clusternode.

Review, but do not edit the contents of `common.ps1`

Note this section of the script.

```
C:\old\EventStore.ClusterNode.exe --config=C:\upgrade_lab\eventstore.conf

#######
# Start first as is,
# Make NO changes until it is time to upgrade.
#
# When it is time to upgrade
# Do the following:
# 1.Comment out the line above
# 2. un-comment the line below for upgrade
#
#######
```

```
#C:\new\EventStore.ClusterNode.exe --config=C:\upgrade_lab\eventstore.conf
```

The first path is to the old version of eventstore, the second is to the new version.

Step 2: Start a 3 node insecure cluster

Open up 3 Powershell terminals and execute:

```
`.\run1.ps1` in the first terminal
```

```
`.\run2.ps1` in the second terminal
```

```
`.\run3.ps1` in the third terminal
```

Step 3: Verify the cluster is running

Open up a browser pointing at “http://localhost:2113”

You should see the eventstore webui.

Add an event using the stream browser

Step 4: Generate some data to scavenge

Open the folder, `C:\Users\Administrator\Desktop\EventStoreTraining\Load_Generator` in vscode.

This directory is used for a number of labs, for this lab you want the `data_generator_scavenge` folder.

Run this script

```
\data_generator_scavenge\dategenerator.py
```

This script does the following.

Sets the $maxCount setting to 2, in the metadata stream for each stream.

Creates an event

```
new_event = NewEvent(
    type="set_count",
    data=b'{"$maxCount": 2}'
)
```

And appends that to the $$ stream.

```
for name in stream_names:
    client.append_to_stream(
        f"$${name}",
        events = [new_event],
        current_version = StreamState.ANY
    )
```

Then in a loop it appends 100 events to each stream.

Note that only 2 events will be returned when the stream is read.

But the $all stream will still have the events.

You can verify by viewing a stream in the stream browser.

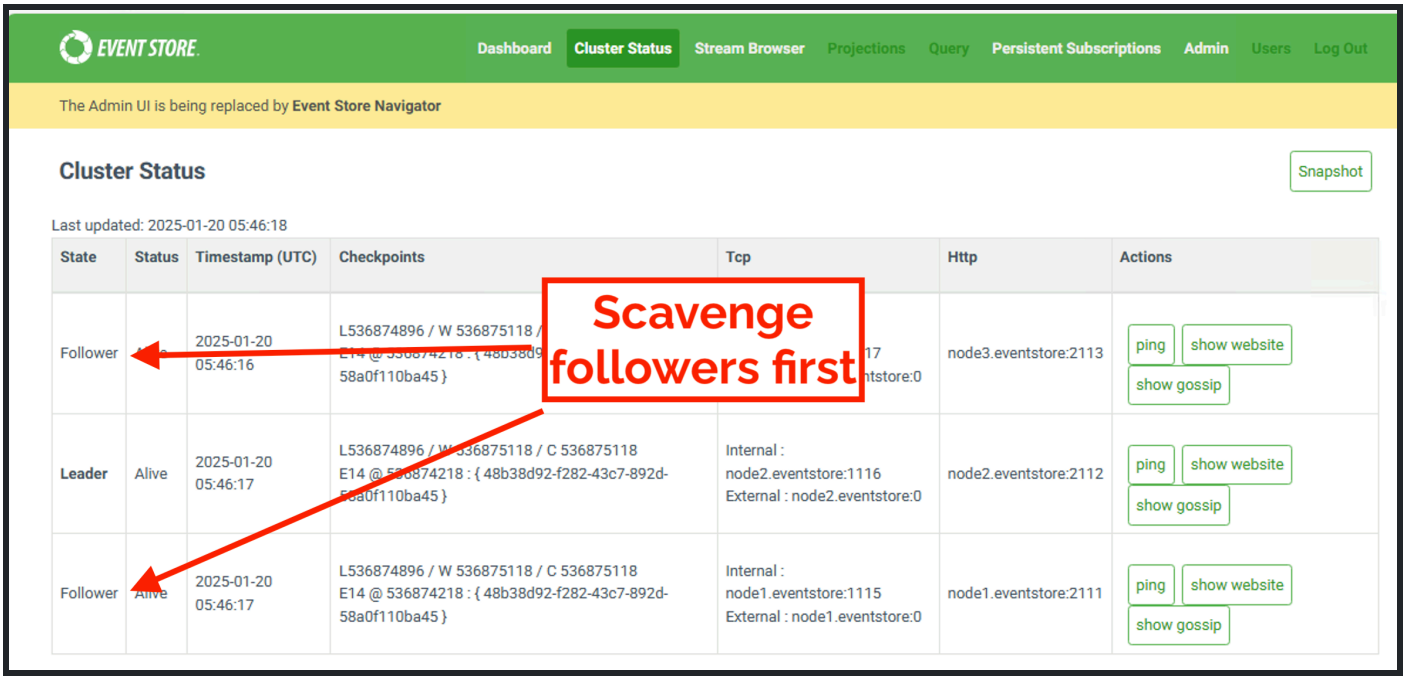
`http://node3.eventstore:2113/web/index.html#/streams/<stream name>`

Then viewing the $all stream

`http://node3.eventstore:2113/web/index.html#/streams/$all`

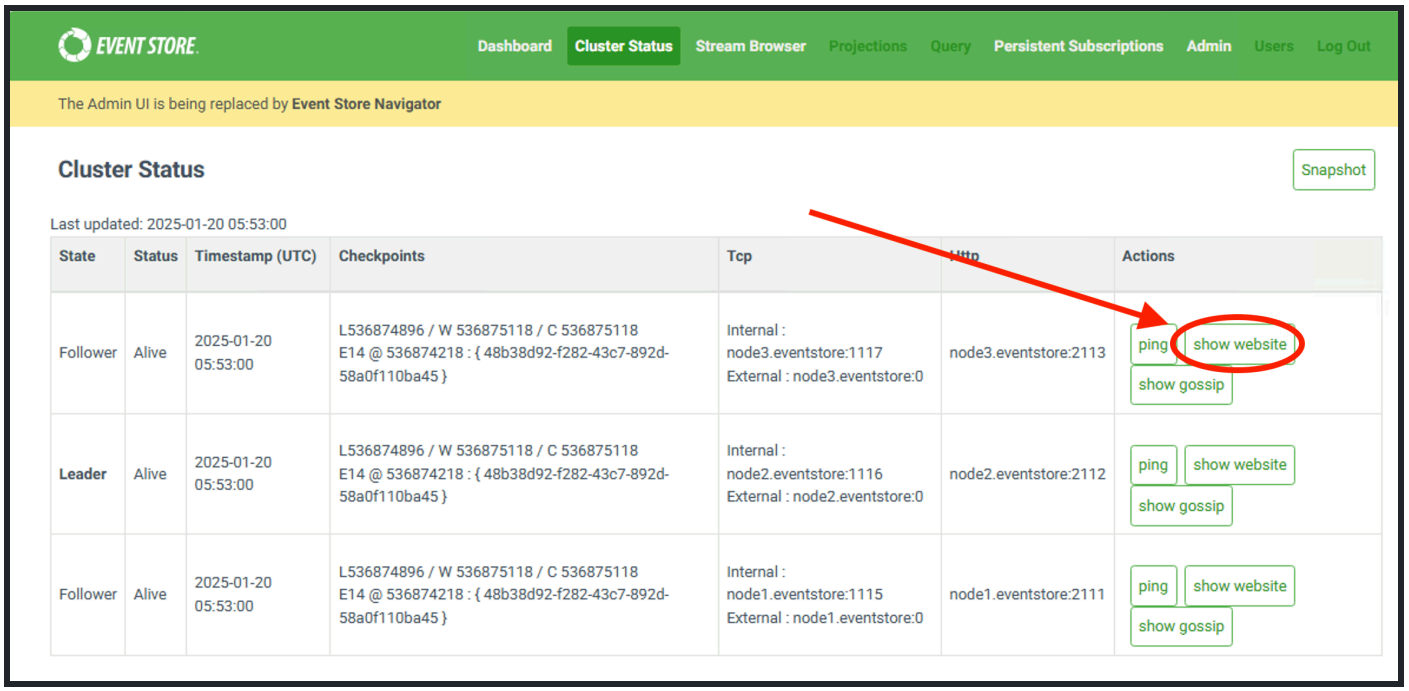
Step 5: Open the webui for each node

View the “cluster Status” tab of the webui.

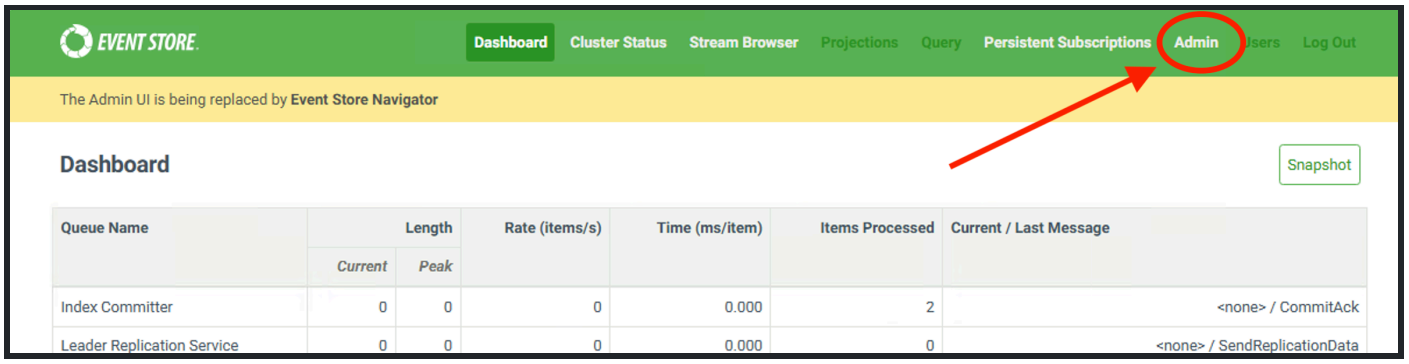


Step 6: Perform a Scavenge on each of the followers

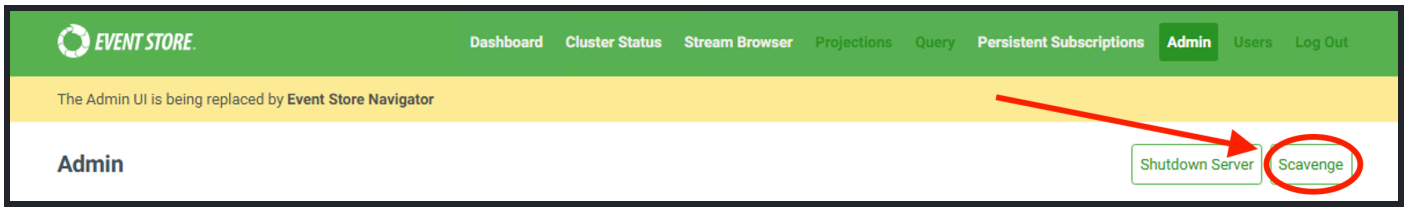
Click on the website for the node from the “cluster status” tab



Click on the “Admin” button.



Click on “Scavenge”



Note that the scavenge button, when clicked will both initiate a scavenge and show a cluster wide view of which nodes have been scavenged.

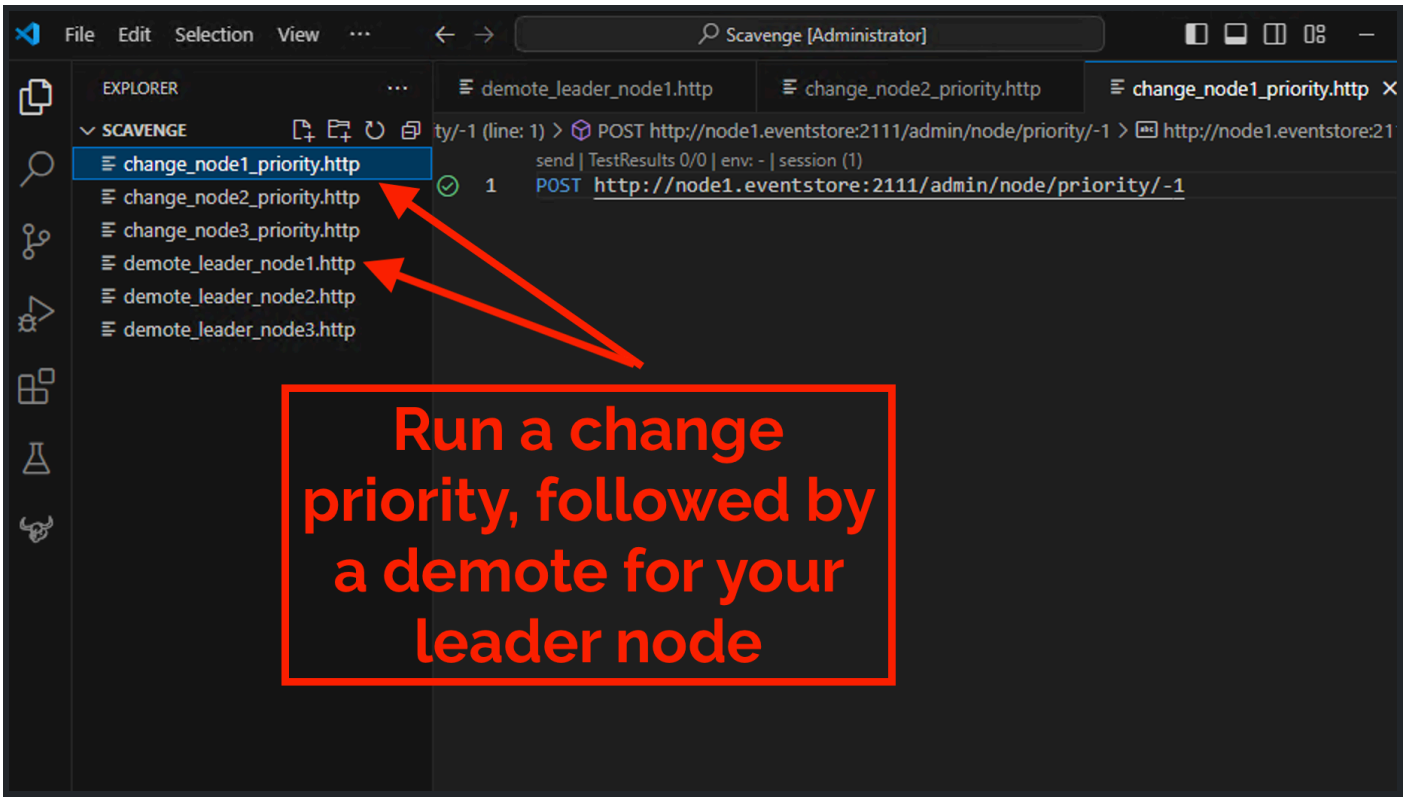
Step 8: Demote the leader

If you demote the leader it will trigger a leader election. To prevent the same node from winning the election it is best to change the priority of the node first.

Changing priority, and demoting the leader is done using http requests.

Open the directory `C:\Users\Administrator\Desktop\EventStoreTraining\Scavenge` in vscode.

If your leader was node1, you would run “change_node1_priority.http” followed by “demote_leader1.http”



Step 9: Scavenge the former leader

Use the webui to scavenge the former leader.

Congratulations !!!

You have performed a Scavenge on a cluster

Note Auto Scavenge is a new feature that enables a single command scavenge of a multi-node cluster !!!