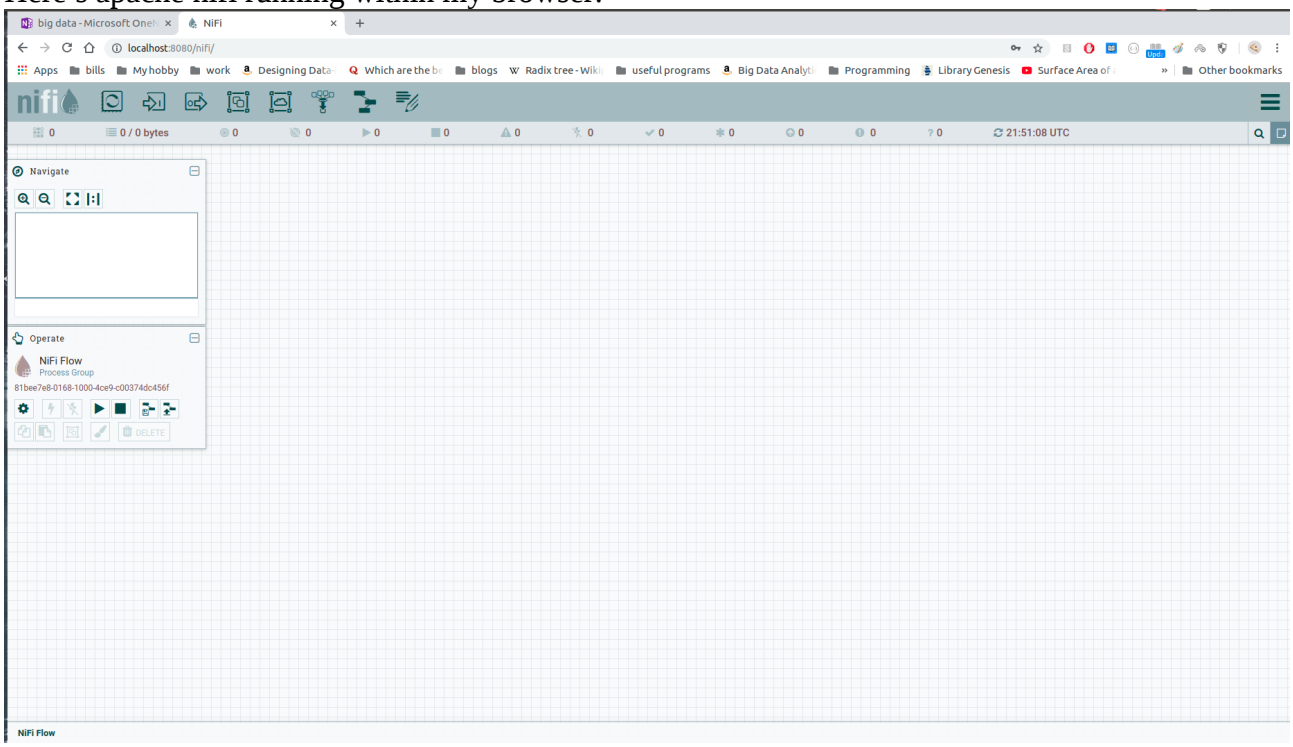
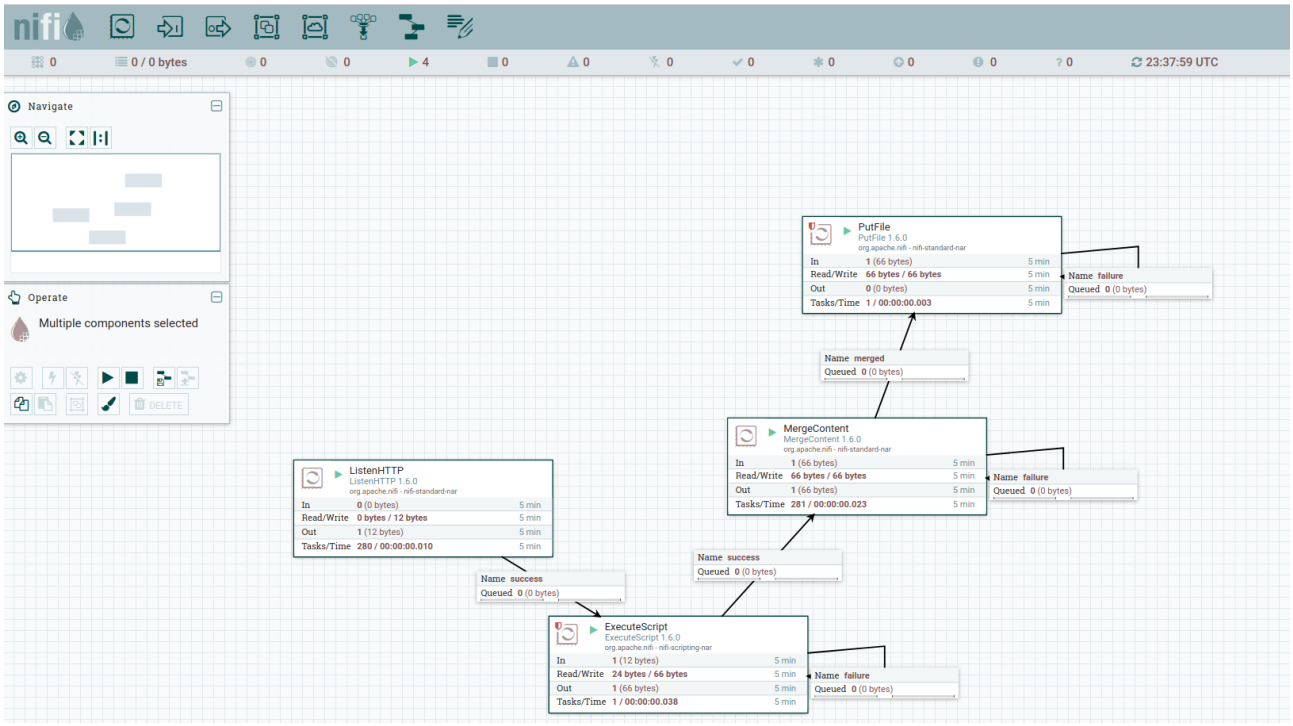
Apache Nifi report.

So, first of all I downloaded the docker image, using the “docker pull apache/nifi:1.6.0” command. Then I launched a container with that image on port 8080, using the “docker run -p 8080:8080 apache/nifi:1.6.0” command.

Here’s apache nifi running within my browser:



Next up, I added the same processors as described in the lecture, except between the **ListenHTTP** processor and **MergeContentProcessor** I added an **ExecuteScript** processor. Here’s my screenshot of this setup:

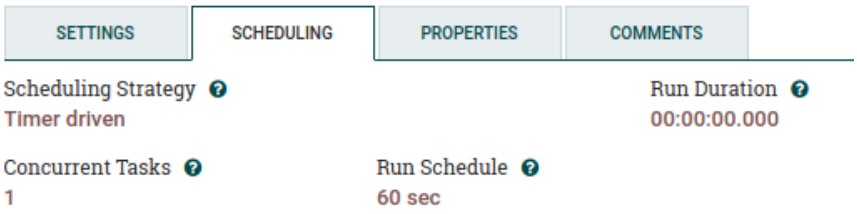


Inside the **ExecuteScript** processor, I added a Groovy script that transforms our message into json format, adding a timestamp. So, if we receive a message “Hello” at 5 am, the json will look like this: **{“timestamp”:”5 am”, “message”:”Hello”}**

Here is my script:

```
import org.apache.commons.io.IOUtils
import java.nio.charset.StandardCharsets
import java.time.LocalDateTime

flowFile = session.get()
if(!flowFile)return
def text = ''

session.read(flowFile, {inputStream ->
  text = IOUtils.toString(inputStream, StandardCharsets.UTF_8)
} as InputStreamCallback)


def outputMessage = '{\"timestamp\":\"' + LocalDateTime.now().toString() + '\", \"message:\":\"' + text + '\"}'

flowFile = session.write(flowFile, {inputStream, outputStream ->
  text = IOUtils.toString(inputStream, StandardCharsets.UTF_8)
  outputStream.write(outputMessage.getBytes(StandardCharsets.UTF_8))
} as StreamCallback)

session.transfer(flowFile, REL_SUCCESS)
```

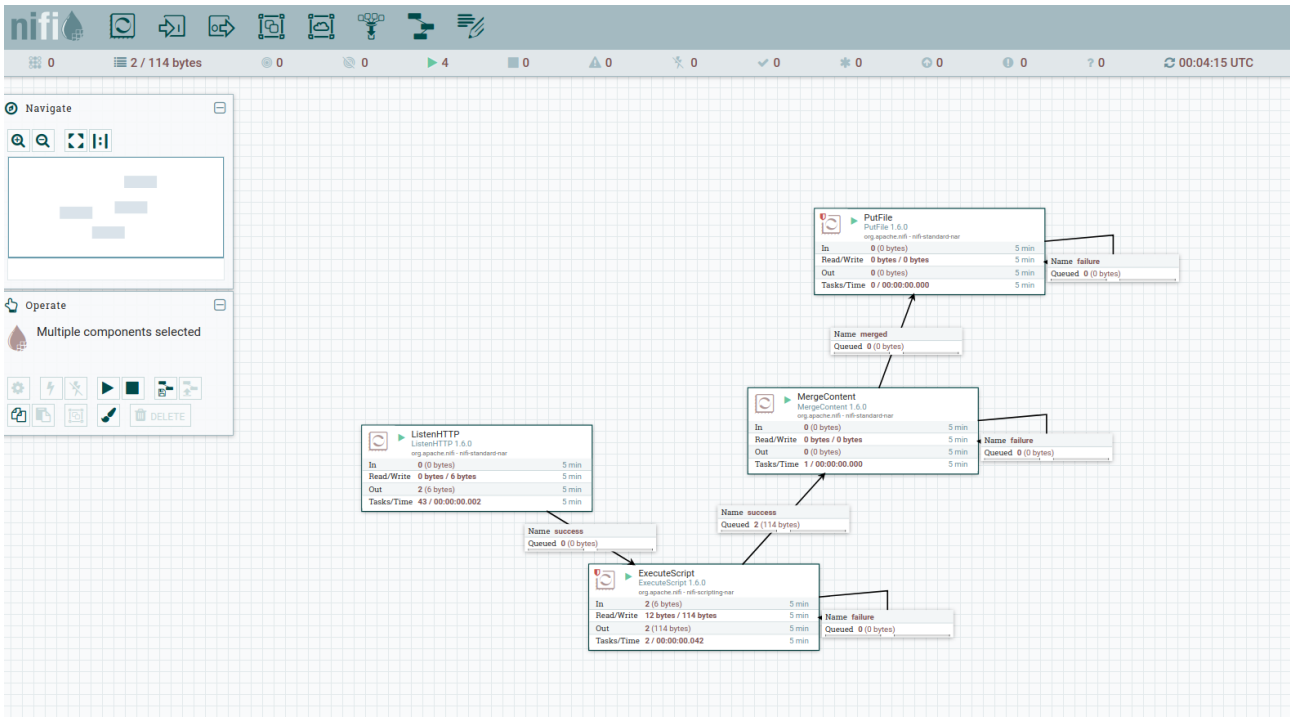
In order to stall messages in a queue, so that they can be collected into batches I changed **MergeContent** processor’s scheduling settings to this (note the **60 sec** setting):



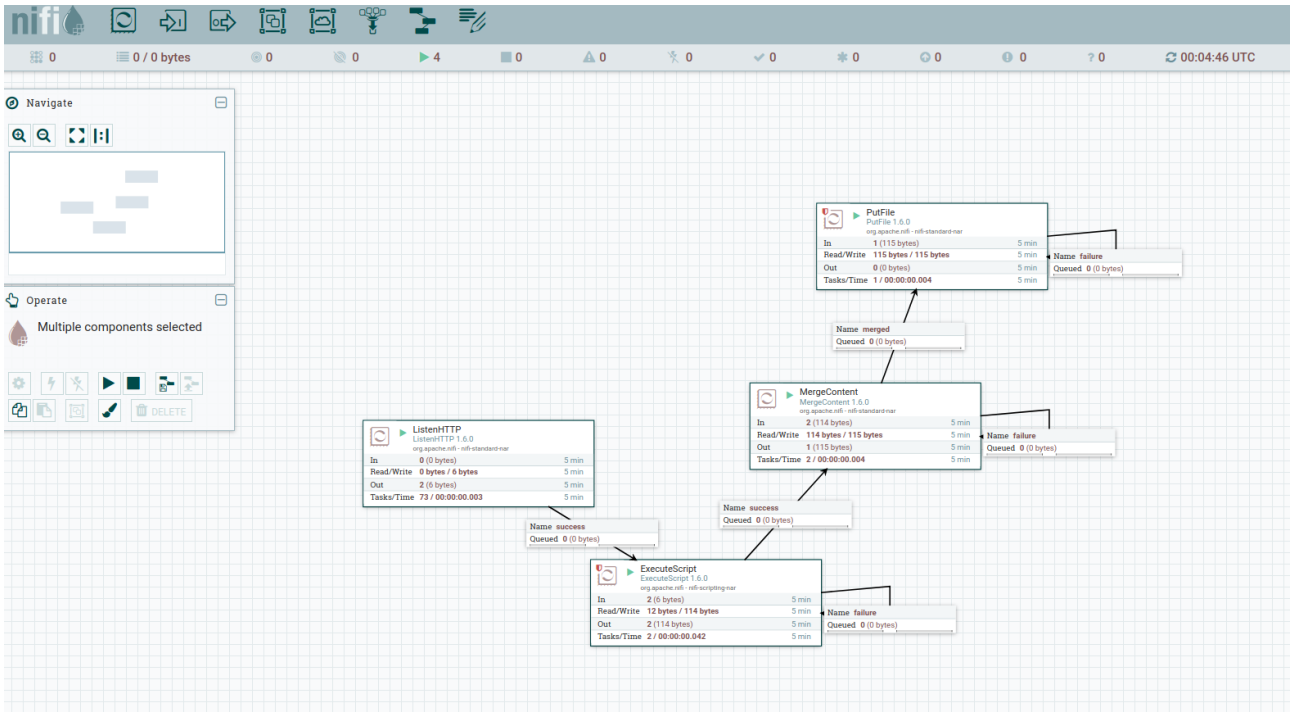
After I did that and sent 2 messages like so:

- curl -X POST -d "one" http://127.0.0.1:4141/data
- curl -X POST -d "two" http://127.0.0.1:4141/data

I was able to see **MergeContent** processor stalling these 2 messages in a queue, until the current minute was up:



From the picture above you can see the 2 queued messages. And this is the picture after that minute was up:



As you can see, the 2 merged messages were processed into 1, and written to disk.

Then I sent the third message, and this is the contents of my /tmp/nifi folder:

```
nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$ ls /tmp/nifi
21501741934280  21550473693423
nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$
```

These and the contents of those 2 files:

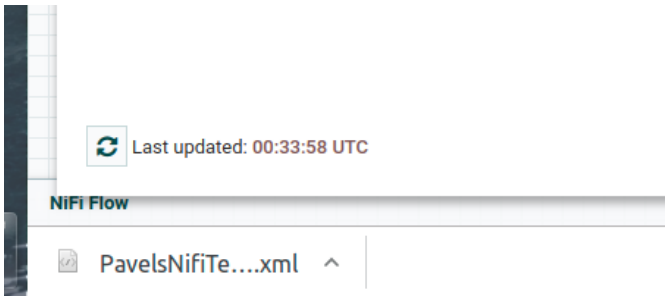
```
nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$
nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$ cat /tmp/nifi/21501741934280
{"timestamp":"2019-01-25T00:03:45.716", "message:":"one"}
{"timestamp":"2019-01-25T00:04:11.970", "message:":"two"}nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$
nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$
nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$ cat /tmp/nifi/21550473693423
{"timestamp":"2019-01-25T00:05:22.390", "message:":"three"}nifi@cca79f2af03d:/opt/nifi/nifi-1.6.0$
```

As expected, the first 2 messages were batched into one, and the third one is by itself.

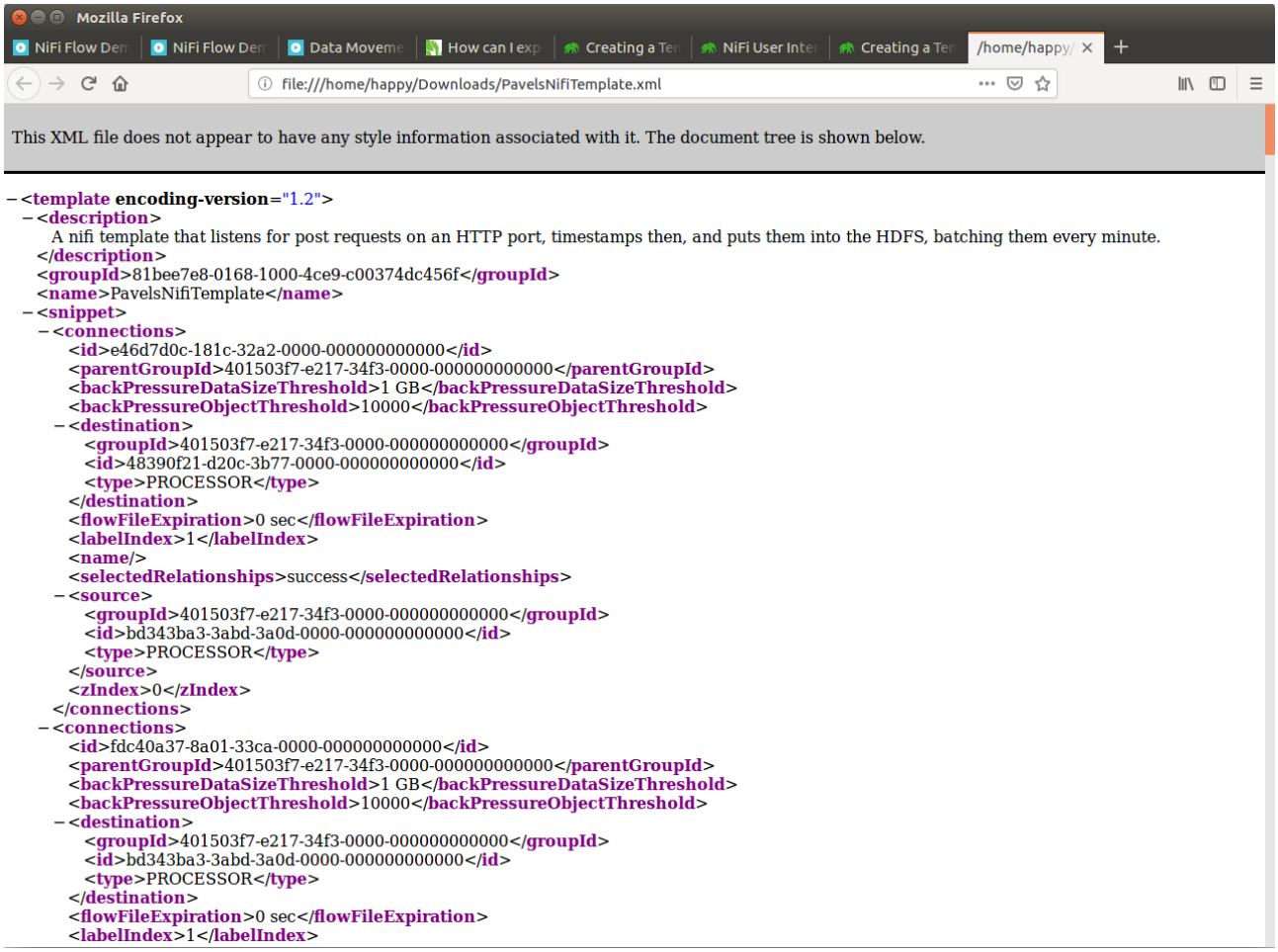
Exporting templates.

If we go to Global Menu → Templates, we will see every one of our saved templates. In order to download them, we need to click on the **Download** button which is on the right:

Here's the downloaded template:



Once we open it, we are able to see this content:



QED.