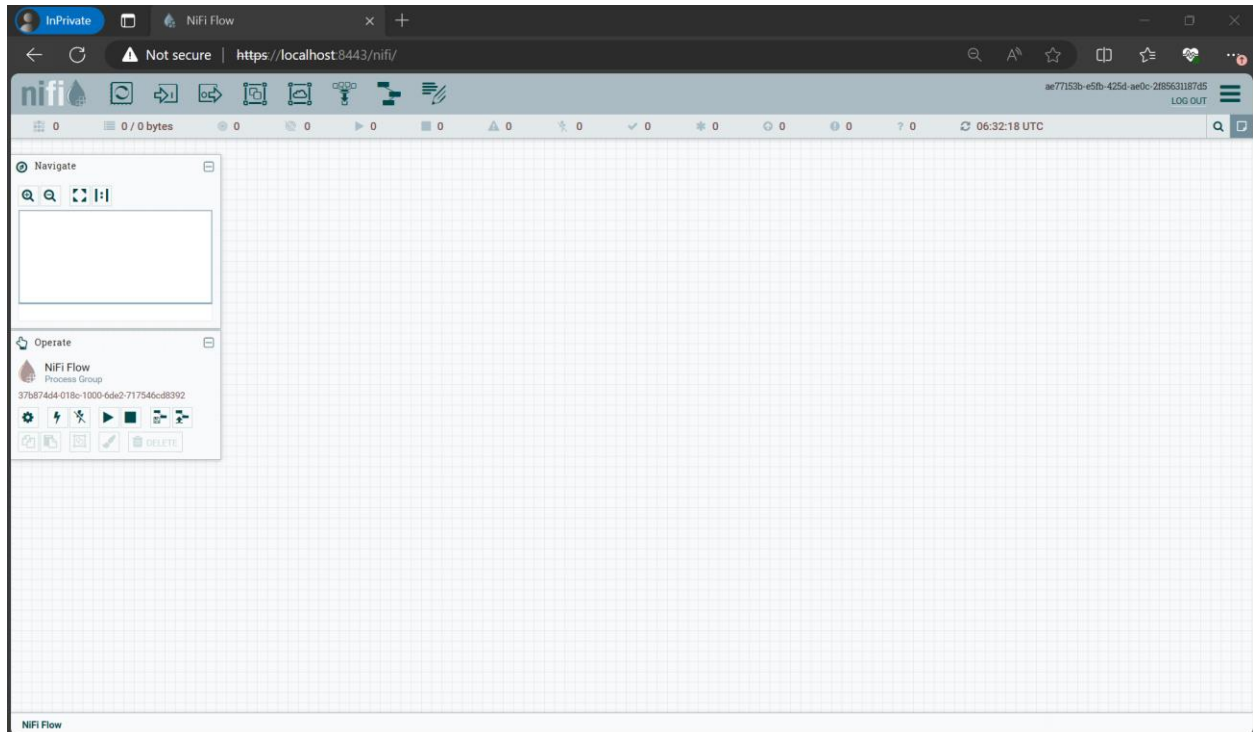


DSC-650-week-09-Mukherjee

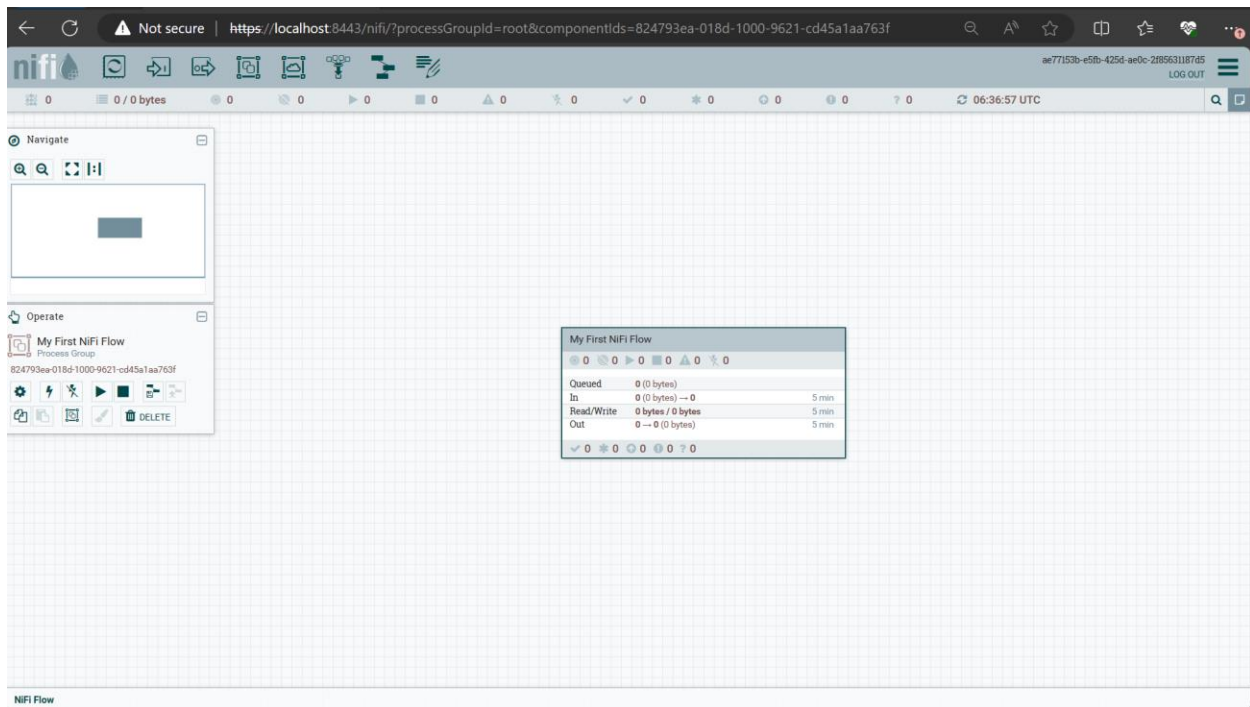
Author : Chitramoy Mukherjee

Date : 02/08/2024

**Screenshot confirming successful access to the NiFi UI.**



**Exercise 1:** Drag and drop the “Processor Group” icon onto the canvas. Name this processor group “My First NiFi Flow”.



### My First NiFi Flow Configuration

GENERAL

CONTROLLER SERVICES

Process Group Name

My First NiFi Flow

Process Group Parameter Context

My First NiFi Flow

No parameter context

My First NiFi Flow

Create new parameter context...

Stream When Available

Default FlowFile Expiration

0 sec

Default Back Pressure Object Threshold

10000

Default Back Pressure Data Size Threshold

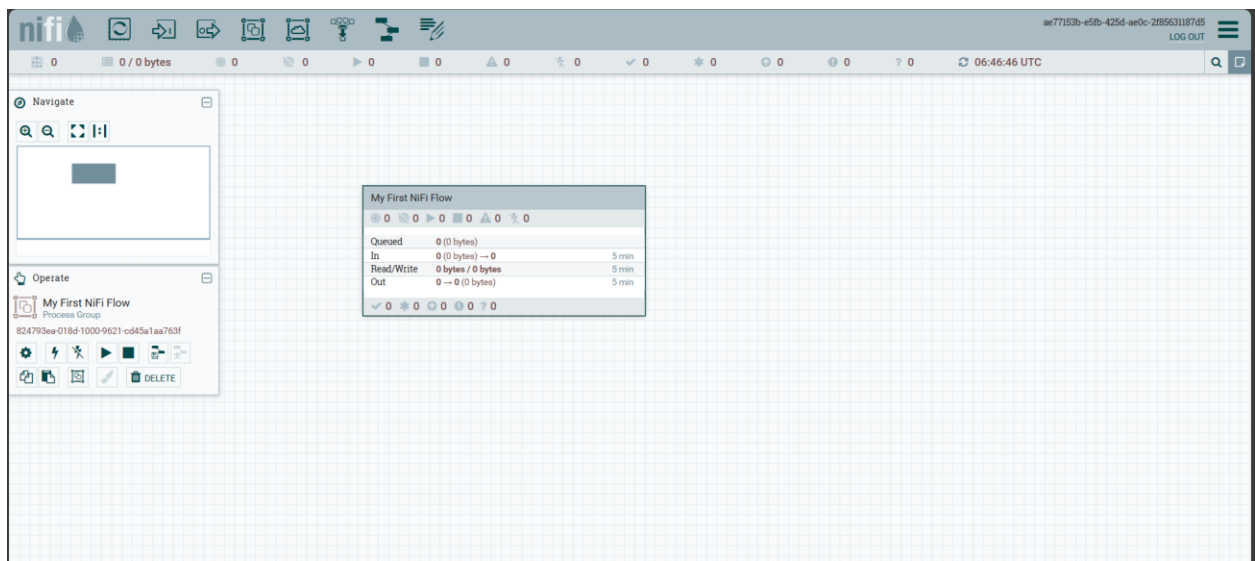
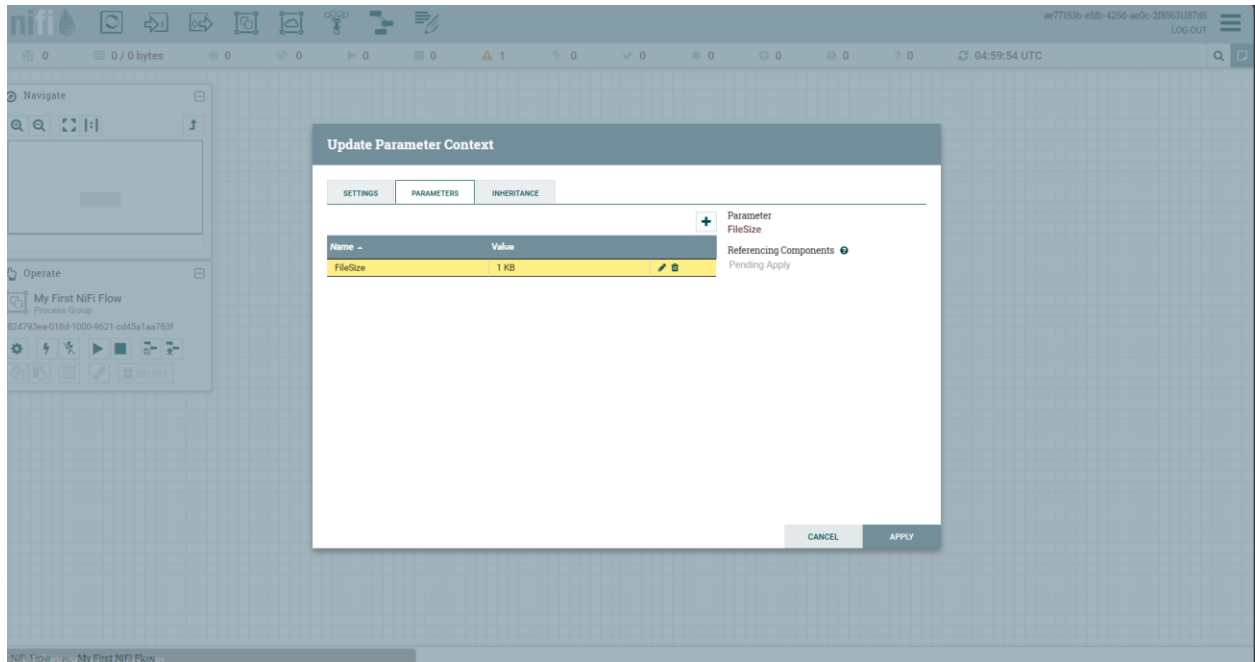
1 GB

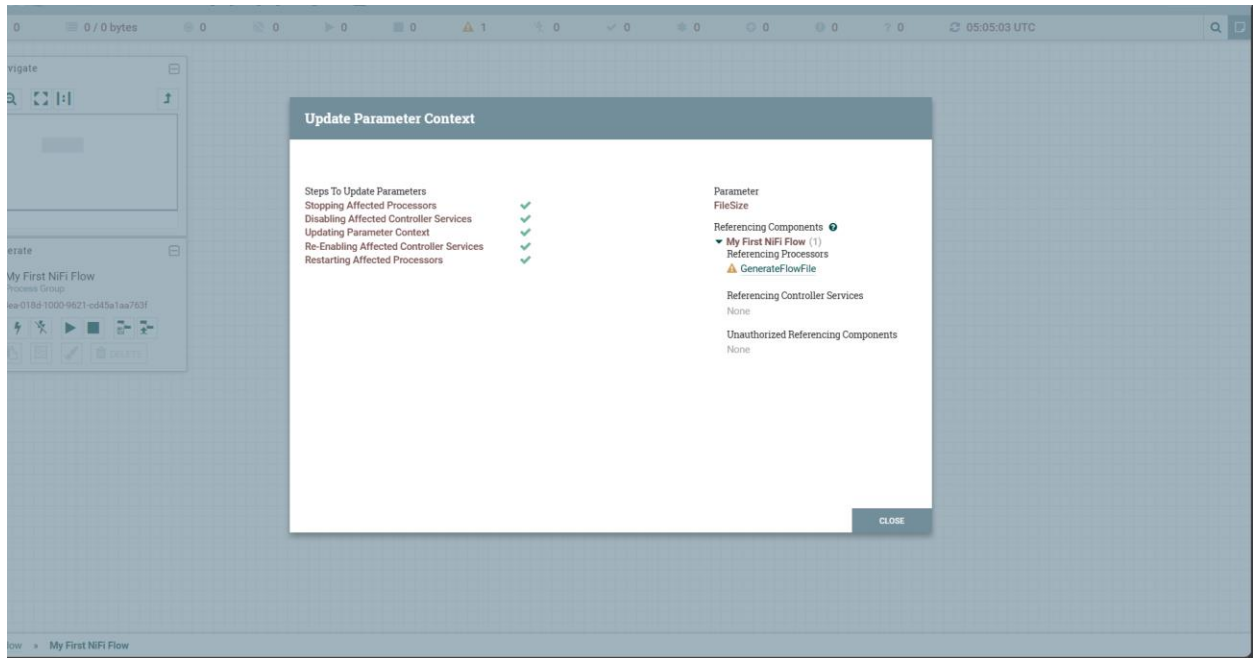
Log File Suffix

Process Group Comments

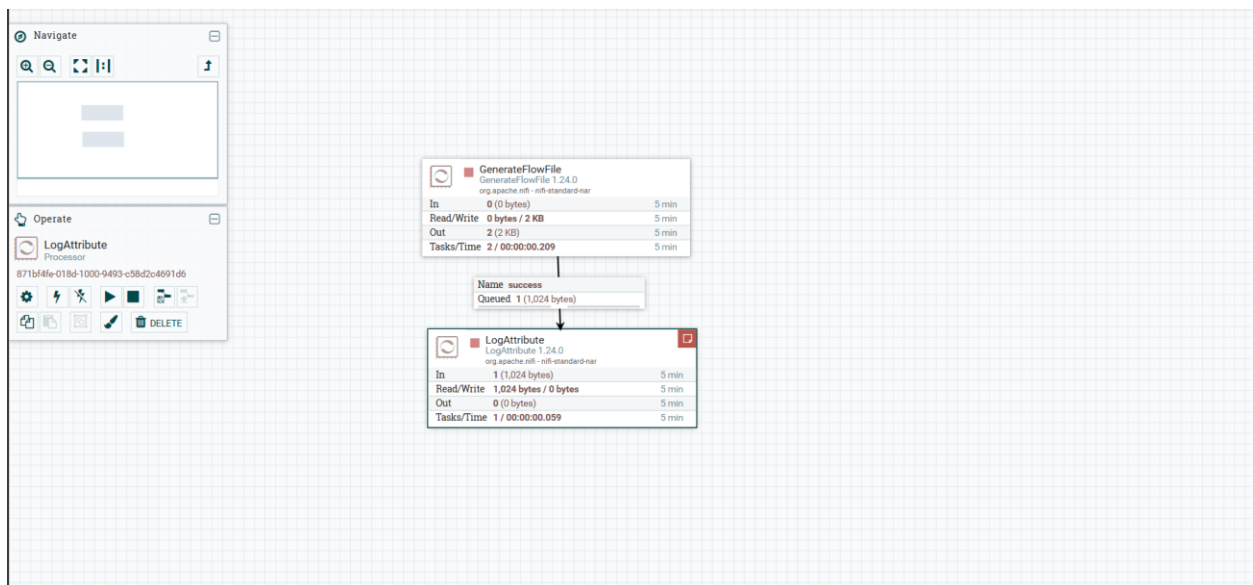
APPLY

**Exercise 2:** Create a Parameter Context for your new processor group. Define a parameter (e.g., File\_Size) that will determine the size of the files generated in the next step





Screenshot of the simple flow (GenerateFlowFile to LogAttribute).



NiFi Data Provenance



Displaying 1 of 1  
Oldest event available: 02/08/2024 05:09:15 UTC

Showing the events that match the specified query. Clear search

Filter		by component name		
Date/Time	Type		Component Type	
02/08/2024 05:09:38.141 UTC	DROP		LogAttribute	

Provenance Event

DETAILS

ATTRIBUTES

CONTENT

Time

02/08/2024 05:09:38.141 UTC

Event Duration

00:00:00.052

Lineage Duration

00:00:22.803

Type

DROP

FlowFile Uuid

17d4d65d-ae3e-40e5-a930-713aad79c2be

File Size

1,024 bytes

Component Id

871bf4fe-018d-1000-9493-c58d2c4691d6

Component Name

LogAttribute

Component Type

Parent FlowFiles (0)

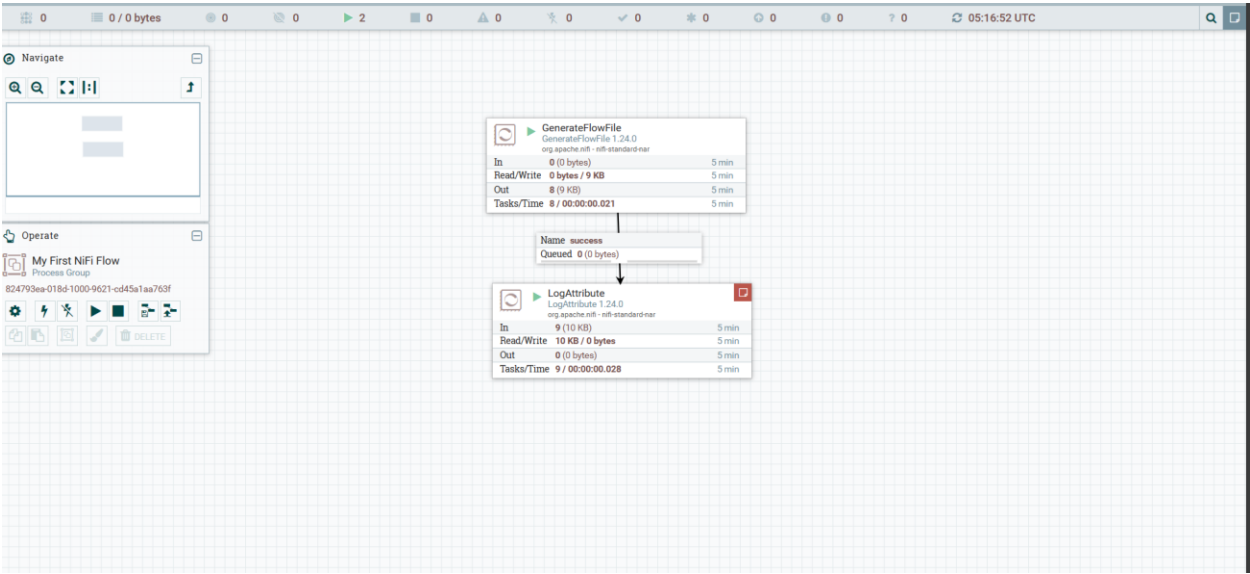
No parents

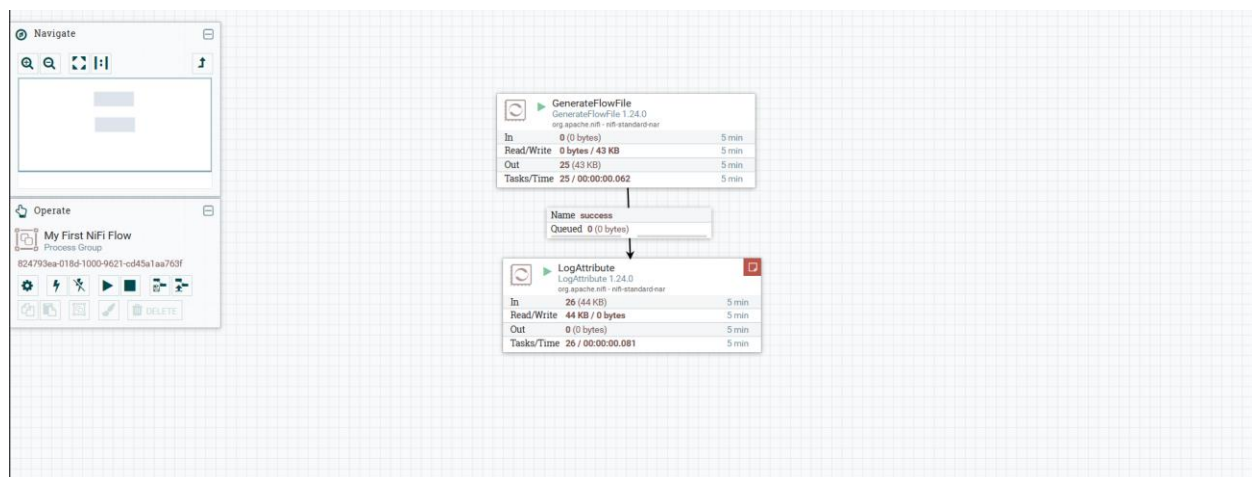
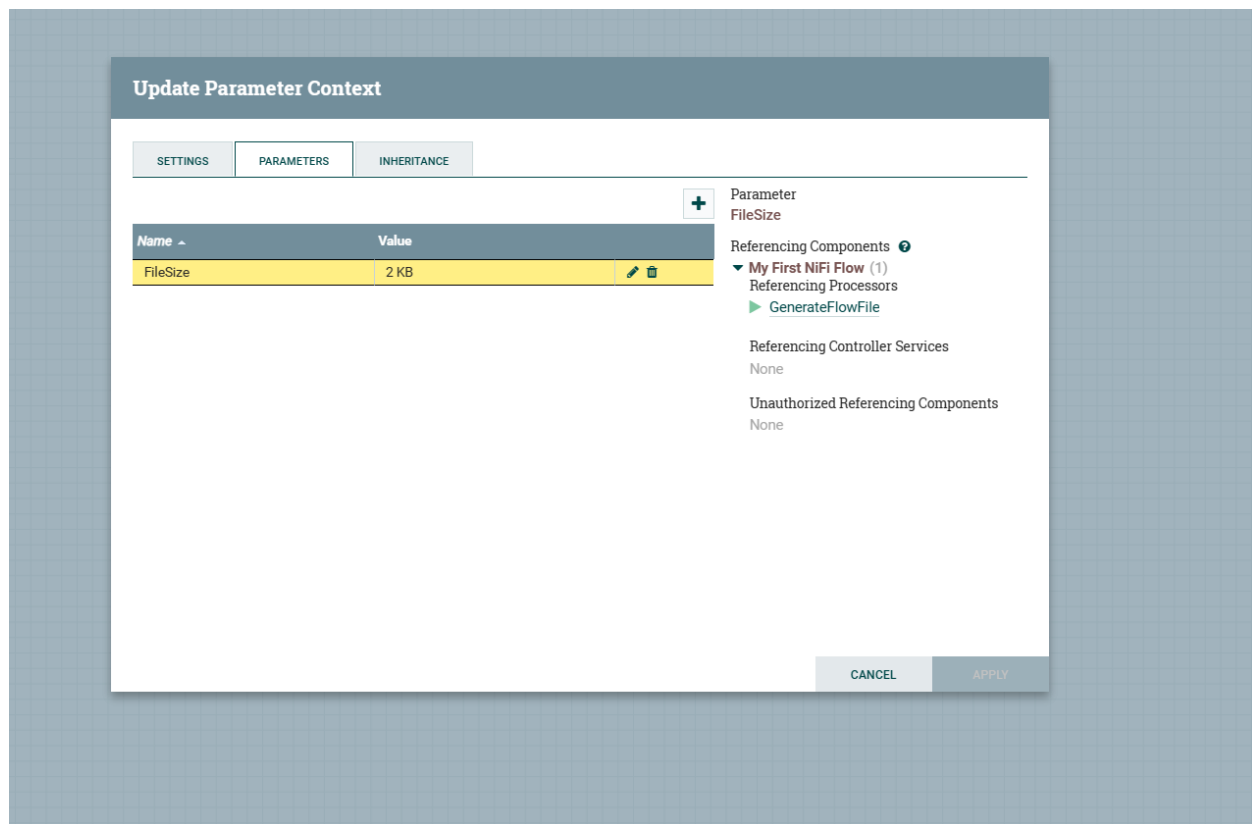
Child FlowFiles (0)

No children

OK

Last updated: 05:12:49 UTC





**Screenshot confirming the successful creation of the syslog collection.**

```

Last login: Thu Feb  8 04:31:11 2024 from 172.59.77.4
chitramoy@bigdata:~$ ls -ltr
total 4
drwxrwxr-x 4 chitramoy chitramoy 4096 Dec  5 01:26 dsc650-infra
chitramoy@bigdata:~$ cd dsc650-infra
chitramoy@bigdata:~/dsc650-infra$ ls -ltr
total 8
-rwxrwxr-x 1 chitramoy chitramoy 2093 Dec  5 01:26 setup.sh
drwxrwxr-x 6 chitramoy chitramoy 4096 Dec  5 01:28 bellevue-bigdata
chitramoy@bigdata:~/dsc650-infra$ cd bellevue-bigdata
chitramoy@bigdata:~/dsc650-infra/bellevue-bigdata$ ls -ltr
total 16
drwxrwxr-x 2 chitramoy chitramoy 4096 Dec  5 01:26 solr
drwxr-xr-x 3 root      root      4096 Dec  5 01:29 nifi
drwxrwxr-x 6 chitramoy chitramoy 4096 Dec  5 01:31 hadoop-hive-spark-hbase
drwxrwxr-x 4 chitramoy chitramoy 4096 Jan 28 18:09 kafka
chitramoy@bigdata:~/dsc650-infra/bellevue-bigdata$ cd solr
chitramoy@bigdata:~/dsc650-infra/bellevue-bigdata/solr$ sudo docker-compose up -d
Starting solr_solr_1 ... done
chitramoy@bigdata:~/dsc650-infra/bellevue-bigdata/solr$ sudo docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS                               NAMES
6a404867c512  solr      "docker-entrypoint.s..." 6 days ago Up 7 seconds 0.0.0.0:8983->8983/tcp, :::8983->8983/tcp  solr_solr_1
chitramoy@bigdata:~/dsc650-infra/bellevue-bigdata/solr$ sudo docker exec -it solr_solr_1 bash
solr@6a404867c512:/opt/solr-9.4.0$ /opt/solr/bin/solr create -c syslog
WARNING: Using default configset with data driven schema functionality. NOT RECOMMENDED for production use.
To turn off: bin/solr config -c syslog -p 8983 -action set-user-property -property update.autoCreateFields -value false
Created new core 'syslog'
solr@6a404867c512:/opt/solr-9.4.0$

```

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localhost:8983/solr/#/

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Solr

Dashboard

Logging

Security

Core Admin

Java Properties

Thread Dump

Core Selector

Instance

Start 6 minutes ago

Versions

solr-spec 9.4.0

solr-impl 9.4.0 71e101bb37497f730078d9afe1991b60d10bfe96 - stillalex - 2023-1C

lucene-spec 9.8.0

lucene-impl 9.8.0 d914b3722bd5b8ef31ccf7e8ddc638a87fd648db - 2023-09-21 21:57

JVM

Runtime Eclipse Adoptium OpenJDK 64-Bit Server VM 17.0.9 17.0.9+9

Processors 4

Args

-DSTOP.KEY=solrrocks  
-DSTOP.PORT=7983  
-DdisableAdminUI=false  
-Djava.security.manager  
-Djava.security.policy=/opt/solr-9.4.0/server/etc/security.policy  
-Djava.security.properties=/opt/solr-9.4.0/server/etc/security.properties  
-Djava.util.logging.manager=org.apache.logging.log4j.jul.LogManager  
-Djetty.home=/opt/solr-9.4.0/server  
-Djetty.port=8983  
-Dlog4j.configurationFile=/var/solr/log4j2.xml  
-Dsolr.default.confdir=/opt/solr-9.4.0/server/solr/configsets/\_default/conf  
-Dsolr.install.dir=/opt/solr-9.4.0  
-Dsolr.install.symDir=/opt/solr  
-Dsolr.internal.network.permission=\*

System 0.04

Physical Memory 20.1%

1.56 GB 7.75 GB

File Descriptor Count 0.0%

169 1048576

JVM-Memory 41.4%

212.17 MB 512.00 MB 512.00 MB

Security

WARNING: Security is not enabled for this server!

See security screen for how to enable authentication

TLS enabled? ❌

Solr

Request-Handler (qt)

/select

— common

q

q.op

OR

fq

sort

start, rows

0 10

fl

df

paramset(s)

Select paramset(s)...

wt

-----

☒ indent on

☐ debugQuery

http://localhost:8983/solr/syslog/select?indent=true&q.op=OR&q=%3A\*&useParams=

```
{
  "responseHeader": {
    "status": 0,
    "QTime": 46,
    "params": {
      "q": "*",
      "indent": "true",
      "q.op": "OR",
      "useParams": "",
      "_": "1707570446168"
    }
  },
  "response": {
    "numFound": 0,
    "start": 0,
    "numFoundExact": true,
    "docs": [ ]
  }
}
```

Screenshot of the advanced NiFi flow processing and sending data to Solr.

Not secure | https://localhost:8443/nifi/?processGroupId=root&componentIds=95b19f49-018d-1000-c91d-196af23da79f

ae77153b-e5fb-425d-ae0c-2f85631187d5 LOG OUT

0 0 / 0 bytes 0 0 2 1 2 0 0 0 0 0 0 0 0 06:09:31 UTC

Navigate

Operate

My First NiFi Flow

Process Group

824793ee-018d-1000-9621-cd45a1aa763f

1 min 1 min 1 min

DELETE

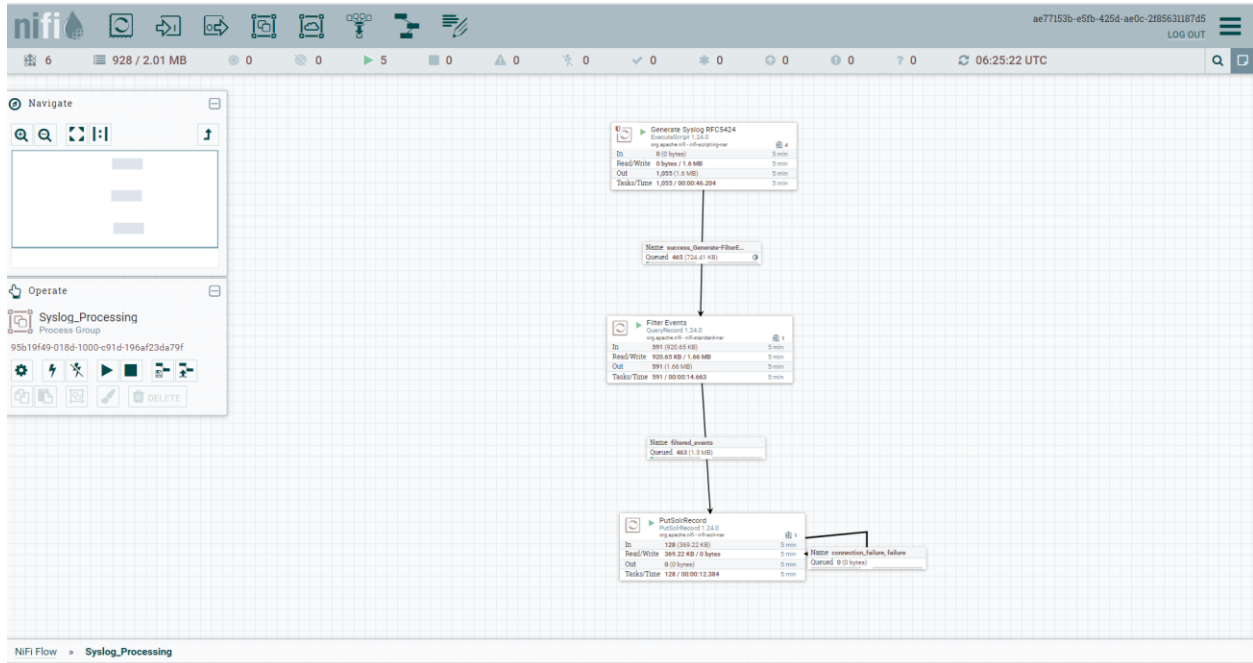
Syslog\_Processing

0 0 0 0 1 2 0

Queued	0 (0 bytes)	
In	0 (0 bytes) → 0	5 min
Read/Write	0 bytes / 0 bytes	5 min
Out	0 → 0 (0 bytes)	5 min

0 0 0 0 0 0 0





Select severity, timestamp, structuredData\_SDID\_iut, structuredData\_SDID\_eventSource where procid='4340' from solr Web Interface.

Count based on priority is solr Web Interface on syslog data.

```

"severity":["0"],
"facility":["0"],
"version":["1"],
"timestamp":["1707632715057"],
"hostname":["host2.example.com"],
"body":["application has stopped unexpectedly"],
"appName":["application6"],
"procid":["4340"],
"messageid":["1041"],
"structredata_S0ID_eventID":["11"],
"structredata_S0ID_eventSource":["application"],
"structredata_S0ID_int":["0"],
"id":["7cfdfdc-39dc-4b79-ad8e-ac8a58b8f909"],
"version":["1708582698452975616"]
},
{
"priority":["81"],
"severity":["1"],
"facility":["10"],
"version":["1"],
"timestamp":["1707632715058"],
"hostname":["host8.example.com"],
"body":["application has completed gracefully"],
"appName":["application1"],
"procid":["4911"],
"messageid":["1027"],
"structredata_S0ID_eventID":["74"],
"structredata_S0ID_eventSource":["kernel"],
"structredata_S0ID_int":["0"],
"id":["1d5b4078-3637-42bd-8487-ba46858dda2"],
"version":["1708582698459267072"]
},
{
"priority":["62"],
"severity":["6"],
"facility":["7"],
"version":["1"],
"timestamp":["1707632715058"],
"hostname":["host1.example.com"],
"body":["application has exited cleanly"],
"appName":["application7"],
"procid":["433"],
"messageid":["1047"],
"structredata_S0ID_eventID":["1"],
"structredata_S0ID_eventSource":["python"],
"structredata_S0ID_int":["51"]
}

```

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