

Quick Configure

WSL_Ubuntu_Node-Red_Kafka_CMAK

Required PriorKnowledge:

Installing packages/apps in Ubuntu

SSH

Java Version

Catalog

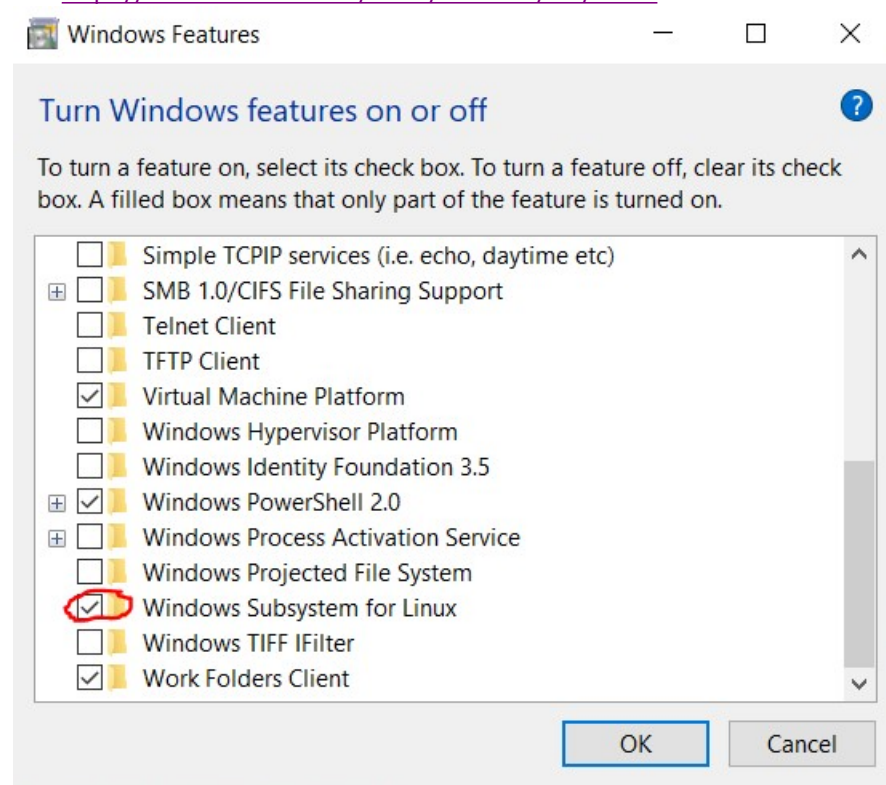
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Prep

WSL2 on Windows

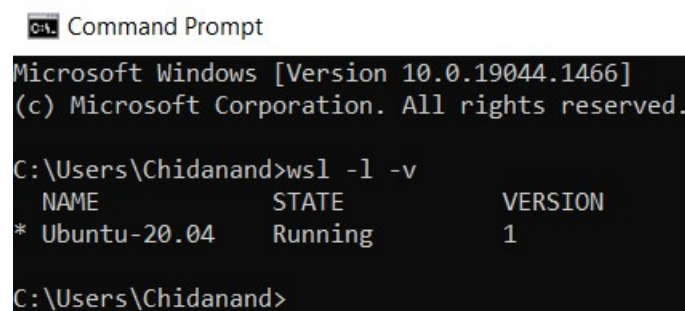
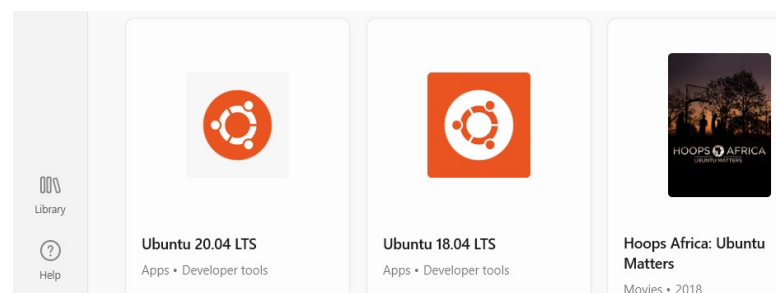
On CMD: `wsl --install`

Ref. <https://docs.microsoft.com/en-us/windows/wsl/install>



Install Ubuntu from MicrosoftStore

Create Linux User



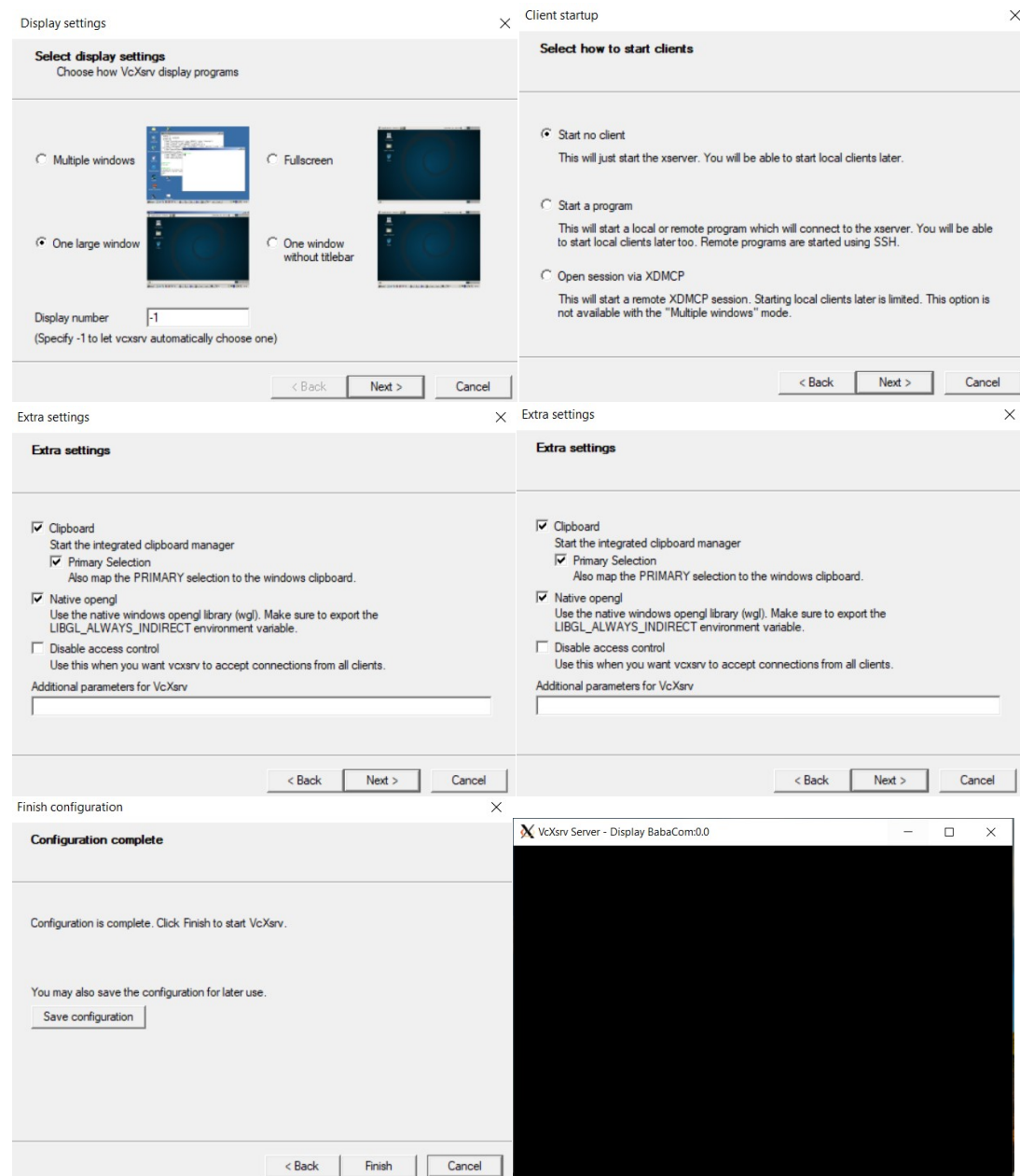
LXDE

Install On Ubuntu:

sudo apt-get install lxde

Ref: <https://wiki.lxde.org/en/Installation>

Launch on Windows

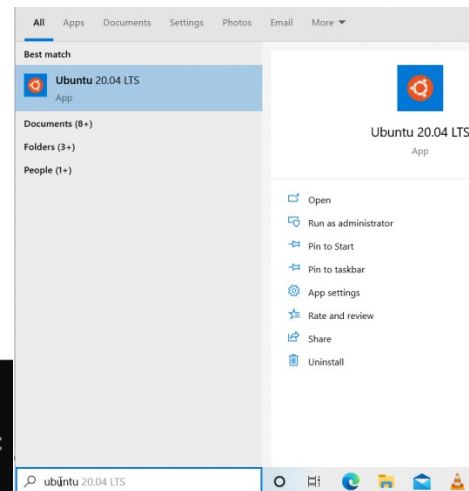


Ubuntu 20-04

Ref. <https://ubuntu.com/wsl>

Command Prompt

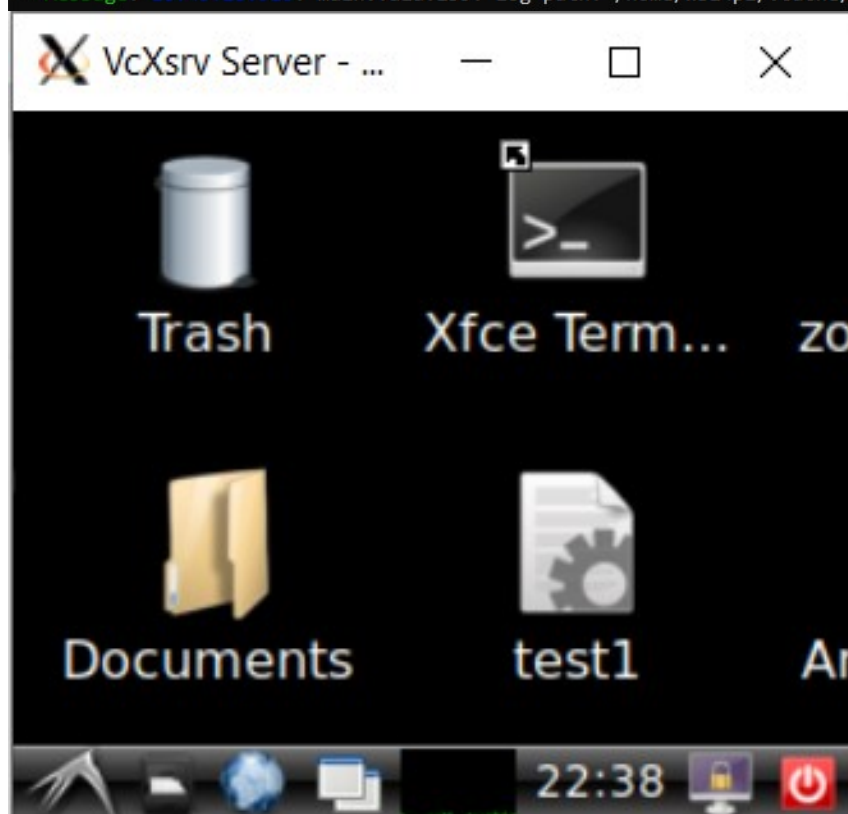
```
C:\Users\Chidanand>wsl --list
Windows Subsystem for Linux Distributions:
Ubuntu-20.04 (Default)
```



Create a file "startlxde" in linux home with the content below:

```
export DISPLAY=:0
export LIBGL_ALWAYS_INDIRECT=1
startlxde &
```

```
wsl4pi@BabaCom:~$ ./startlxde
wsl4pi@BabaCom:~$ ** Message: 18:43:27.602: main.vala:102: Session is LXDE
** Message: 18:43:27.602: main.vala:103: DE is LXDE
** Message: 18:43:28.517: main.vala:134: log directory: /home/wsl4pi/.cache/lxsession/LXDE
** Message: 18:43:28.518: main.vala:135: log path: /home/wsl4pi/.cache/lxsession/LXDE/run.log
```



Node-Red V2.2.0

Install

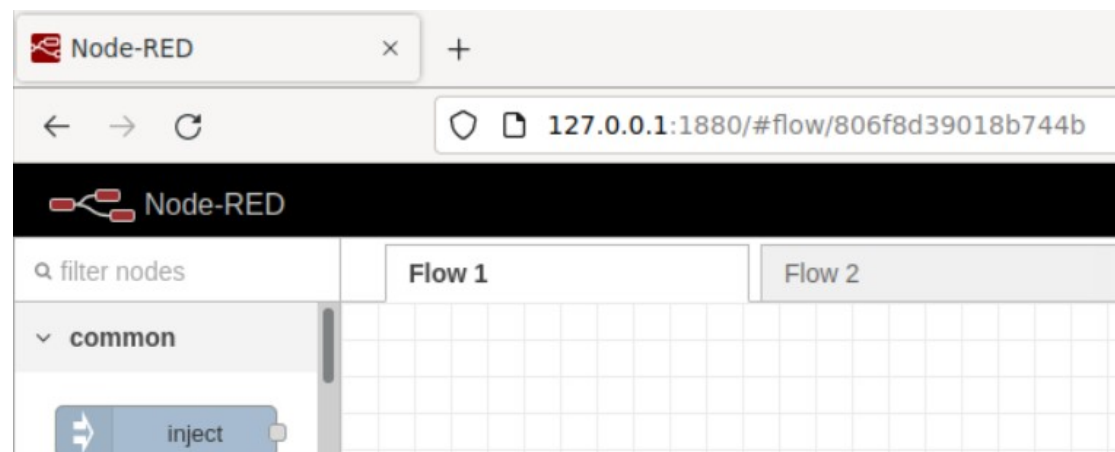
Ref:-> <https://nodered.org/>

Npm:-> "sudo npm install -g --unsafe-perm node-red"

Node-Red:-> "sudo snap install node-red"

```
hadoop@BabaCom:~/kafka/bin$ node-red&
[1] 3729
hadoop@BabaCom:~/kafka/bin$ 2 Feb 20:33:59 - [info]
```

```
2 Feb 20:34:50 - [info] Server now running at http://127.0.0.1:1880/
```



Kafka_2.13-3.0.0

Install

Ref:-> <https://kafka.apache.org/downloads>

Java

```
hadoop@BabaCom:~$ java --version
openjdk 11.0.13 2021-10-19
OpenJDK Runtime Environment (build 11.0.13+8-Ubuntu-0ubuntu1.20.04)
OpenJDK 64-Bit Server VM (build 11.0.13+8-Ubuntu-0ubuntu1.20.04, mixed mode)
```

CMAK-3.0.0.5

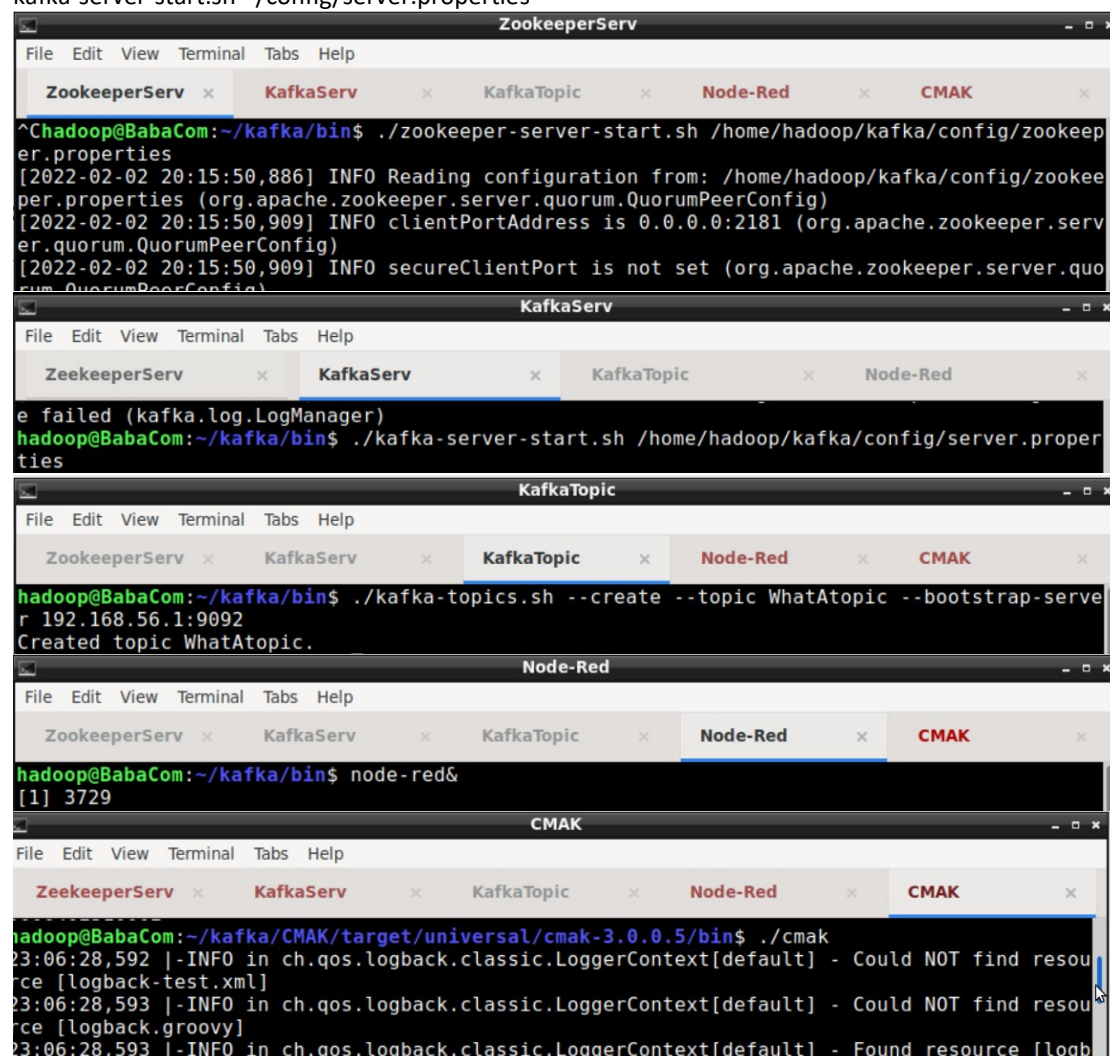
Install

```
git clone https://github.com/yahoo/CMAK.git
nano CMAK/conf/application.conf
cmak.zkhosts="localhost:2181"
cd CMAK
./sbt clean dist
cd target/universal
unzip cmak-3.0.0.5.zip
cd cmak-3.0.0.5
bin/cmak
```

Working

Services

```
zookeeper-server-start.sh ~/config/zookeeper.properties
kafka-server-start.sh ~/config/server.properties
```



The screenshot displays five terminal windows stacked vertically, each showing the startup process of a different service:

- ZookeeperServ**: Shows the command `./zookeeper-server-start.sh /home/hadoop/kafka/config/zookeeper.properties` being executed. Log output includes: `[2022-02-02 20:15:50,886] INFO Reading configuration from: /home/hadoop/kafka/config/zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)`, `[2022-02-02 20:15:50,909] INFO clientPortAddress is 0.0.0.0:2181 (org.apache.zookeeper.server.quorum.QuorumPeerConfig)`, and `[2022-02-02 20:15:50,909] INFO secureClientPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)`.
- KafkaServ**: Shows the command `./kafka-server-start.sh /home/hadoop/kafka/config/server.properties` being executed. The output indicates a failure: `Failed (kafka.log.LogManager)`.
- KafkaTopic**: Shows the command `./kafka-topics.sh --create --topic WhatAtopic --bootstrap-server 192.168.56.1:9092` being executed. The output is: `Created topic WhatAtopic.`
- Node-Red**: Shows the command `node-red&` being executed. The output is: `[1] 3729`.
- CMAK**: Shows the command `./cmak` being executed. Log output includes: `23:06:28,592 |-INFO in ch.qos.logback.classic.LoggerContext[default] - Could NOT find resource [logback-test.xml]`, `23:06:28,593 |-INFO in ch.qos.logback.classic.LoggerContext[default] - Could NOT find resource [logback.groovy]`, and `23:06:28,593 |-INFO in ch.qos.logback.classic.LoggerContext[default] - Found resource [logback.groovy]`.

Configure Nodes

Edit inject node

Delete

Cancel

Done

Properties

Name

TooMany

msg. payload

=

TryOnWindows

+ add

Inject once after 0.1 seconds, then

Repeat none

Enabled

Inject now

Edit Kafka Producer node

Delete

Cancel

Done

Properties

Name

Producer

Type

Producer

Broker

d566ad3519f5f103

Topic

TooMany

Require Ack

1

Ack Timeout (Ms)

100

Partitioner

default

Key

key

Partition

0

Attributes

No compression

Enabled

Edit Kafka Consumer node

Delete

Cancel

Done

Properties

Name

Consumer

Type

Base

Broker

d566ad3519f5f103

Topics

Options

Fetch

Encoding

wildcard

(regex)

Topic

+ Add

Delete Name

Offset

Partition

TooMany

0

0

Enabled

Edit debug node

Delete

Cancel

Done

Properties

Output

msg. payload

To

debug window

system console

node status (32 characters)

Name

Name

Enabled

Node-RED — Mozilla Firefox

Node-RED x Topic List x +

127.0.0.1:1880/#

Node-RED Deploy

filter nodes

common

- inject
- debug
- complete
- catch
- status
- link in
- link call
- link out
- comment

function

- function
- switch

Flow 1 Flow 2 Flow 3 Flow 4

NiceTopic → Producer
Connected to

TooMany → Producer
Connected to

Demo → Producer
Connected to

Consumer → msg.payload
Ready with

debug

all nodes all

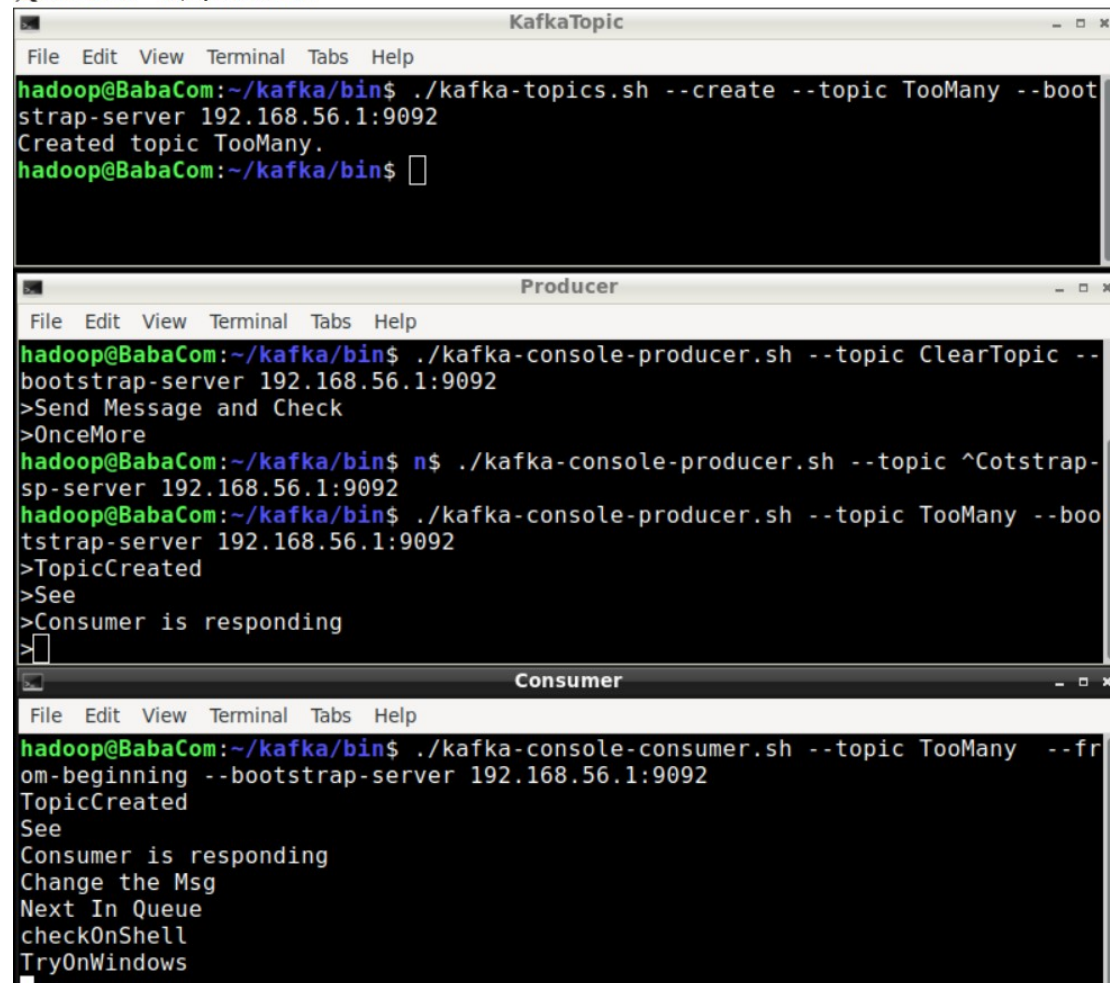
2/3/2022, 5:33:11 AM node: fa1b5ed64c271d52
NiceTopic : msg.payload : string[12]
"NiceMessage"

2/3/2022, 5:33:13 AM node: fa1b5ed64c271d52
TooMany : msg.payload : string[12]
"TryOnWindows"

2/3/2022, 5:33:15 AM node: fa1b5ed64c271d52
Demo : msg.payload : string[12]
"Demo Message"

Create Kafka Topic

VcXsrv Server - Display BabaCom:0.0

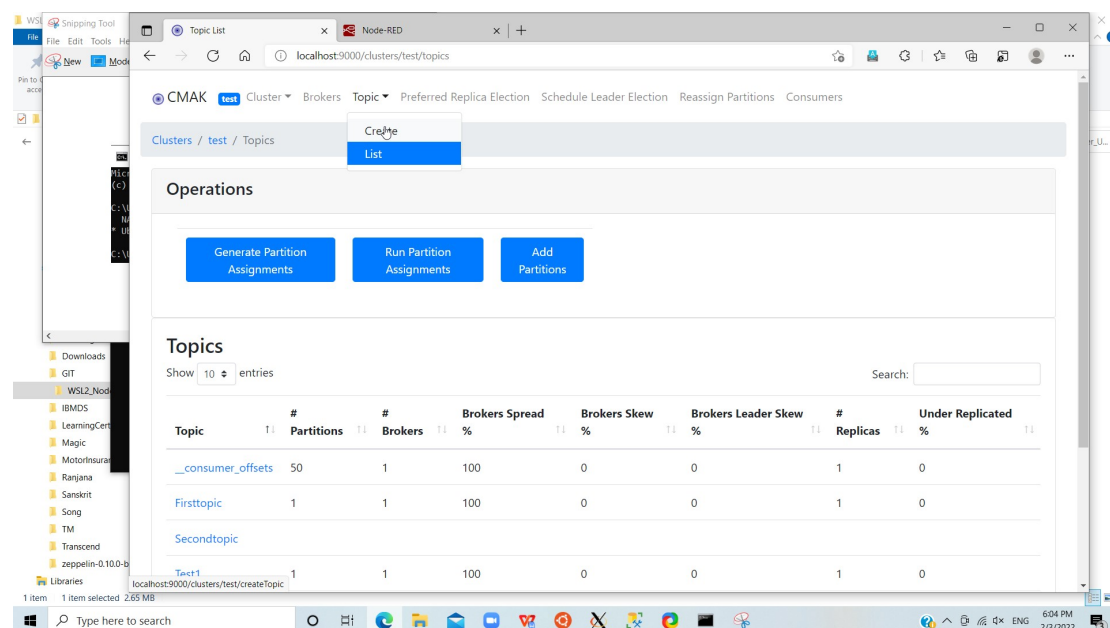


```
KafkaTopic
File Edit View Terminal Tabs Help
hadoop@BabaCom:~/kafka/bin$ ./kafka-topics.sh --create --topic TooMany --bootstrap-server 192.168.56.1:9092
Created topic TooMany.
hadoop@BabaCom:~/kafka/bin$

Producer
File Edit View Terminal Tabs Help
hadoop@BabaCom:~/kafka/bin$ ./kafka-console-producer.sh --topic ClearTopic --bootstrap-server 192.168.56.1:9092
>Send Message and Check
>OnceMore
hadoop@BabaCom:~/kafka/bin$ n$ ./kafka-console-producer.sh --topic ^Cotstrap-sp-server 192.168.56.1:9092
hadoop@BabaCom:~/kafka/bin$ ./kafka-console-producer.sh --topic TooMany --bootstrap-server 192.168.56.1:9092
>TopicCreated
>See
>Consumer is responding
>

Consumer
File Edit View Terminal Tabs Help
hadoop@BabaCom:~/kafka/bin$ ./kafka-console-consumer.sh --topic TooMany --from-beginning --bootstrap-server 192.168.56.1:9092
TopicCreated
See
Consumer is responding
Change the Msg
Next In Queue
checkOnShell
TryOnWindows
```

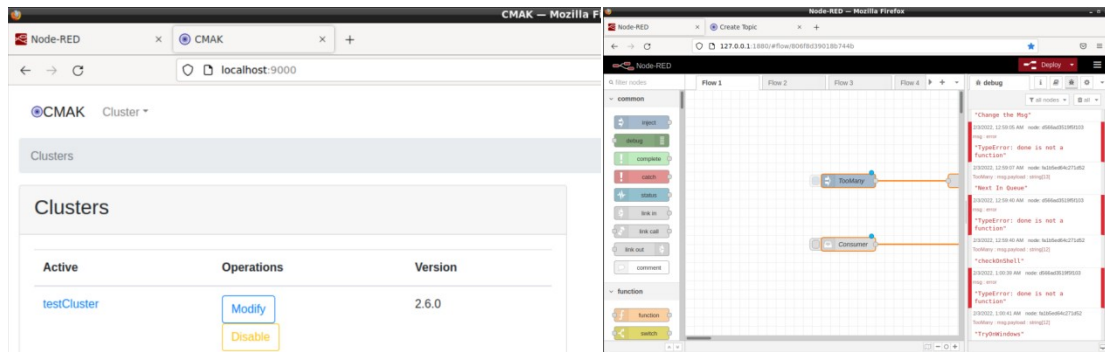
Create Topic on CMAK



The screenshot shows the CMAK web interface with the 'Topics' tab selected. The 'Operations' section contains buttons for 'Generate Partition Assignments', 'Run Partition Assignments', and 'Add Partitions'. The 'Topics' section displays a table with 10 entries. The table has columns for Topic, # Partitions, # Brokers, Brokers Spread %, Brokers Skew %, Brokers Leader Skew %, # Replicas, and Under Replicated %.

Topic	# Partitions	# Brokers	Brokers Spread %	Brokers Skew %	Brokers Leader Skew %	# Replicas	Under Replicated %
__consumer_offsets	50	1	100	0	0	1	0
Firsttopic	1	1	100	0	0	1	0
Secondtopic							
Tact1	1	1	100	0	0	1	0

Once the topic is created, Messages can be sent either from the CLI or Node



Troubleshoot & Tips:

Port conflict: netstat

cmak- zkhost in application.conf

```
# Settings prefixed with 'kafka-manager.' will be deprecated, use 'cmak.' instead.
# https://github.com/yahoo/CMAK/issues/713
#kafka-manager.zkhosts="kafka-manager-zookeeper:2181"
kafka-manager.zkhosts="192.168.56.1:2181"
kafka-manager.zkhosts=${?ZK_HOSTS}
#cmak.zkhosts="kafka-manager-zookeeper:2181"
cmak.zkhosts="localhost:2181"
cmak.zkhosts=${?ZK_HOSTS}
```

clear temp by `rm -rf /tmp/kafka-logs /tmp/zookeeper`