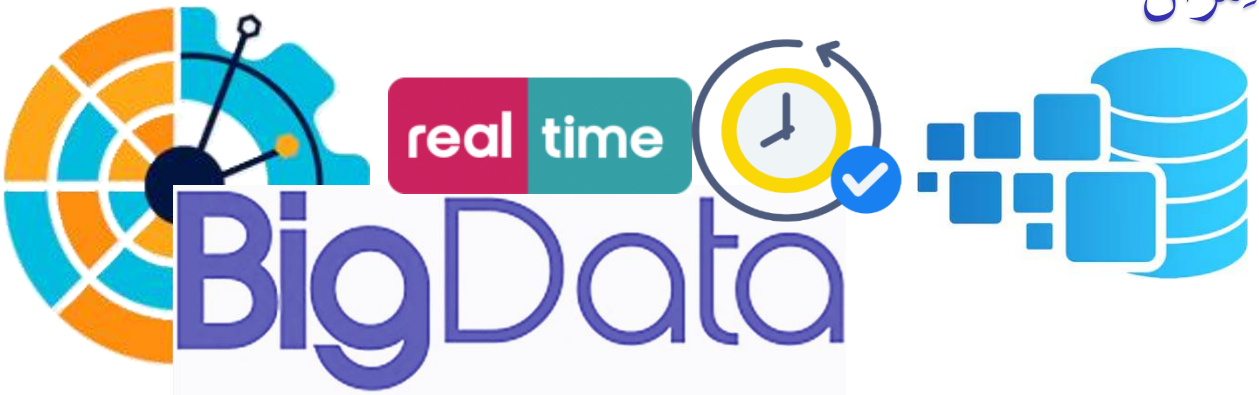


Dr. SOHAIL IMRAN

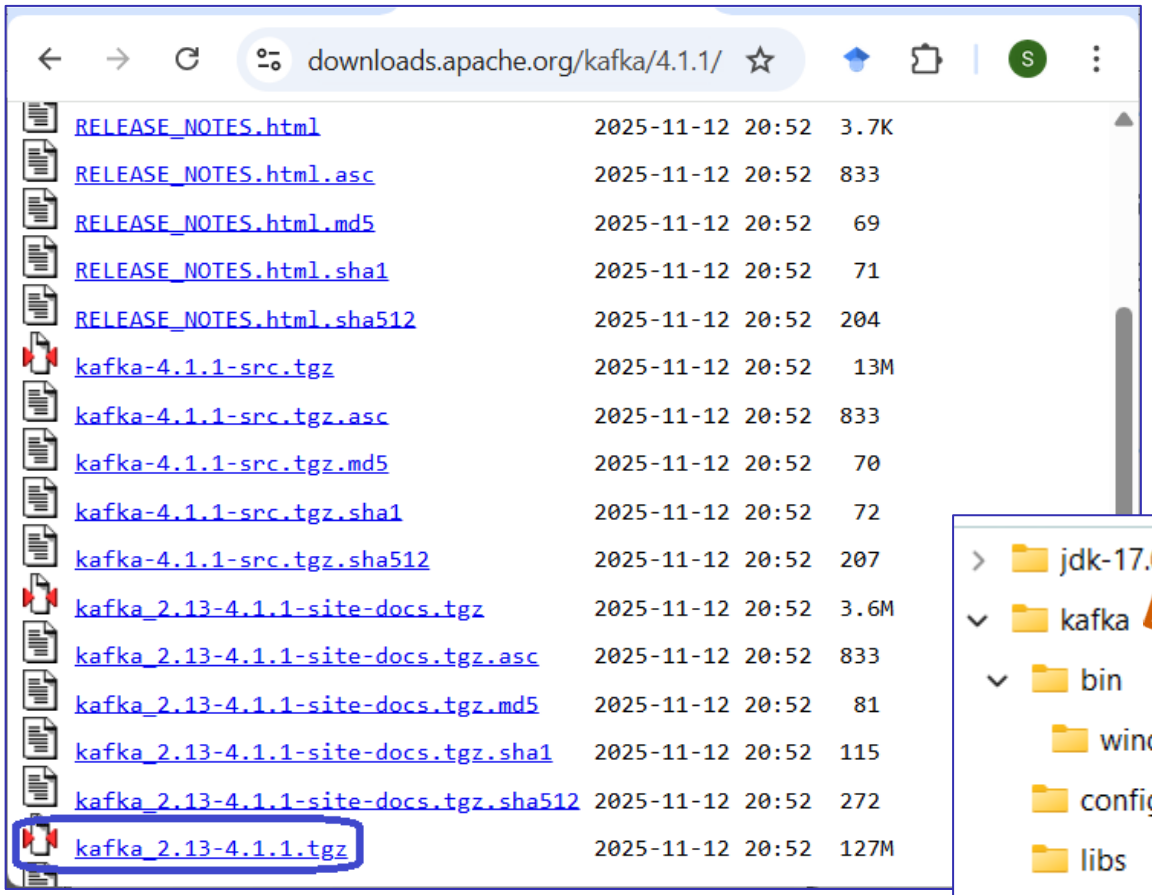
Introduction

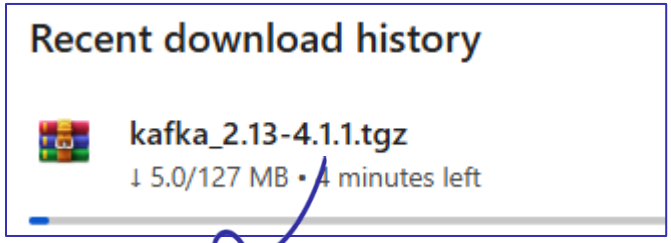
sohailimran2@yahoo.com

Ref: Web

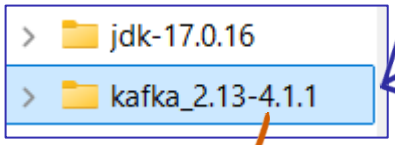
Download & Extract

https://downloads.apache.org/kafka/4.1.1/kafka_2.13-4.1.1.tgz

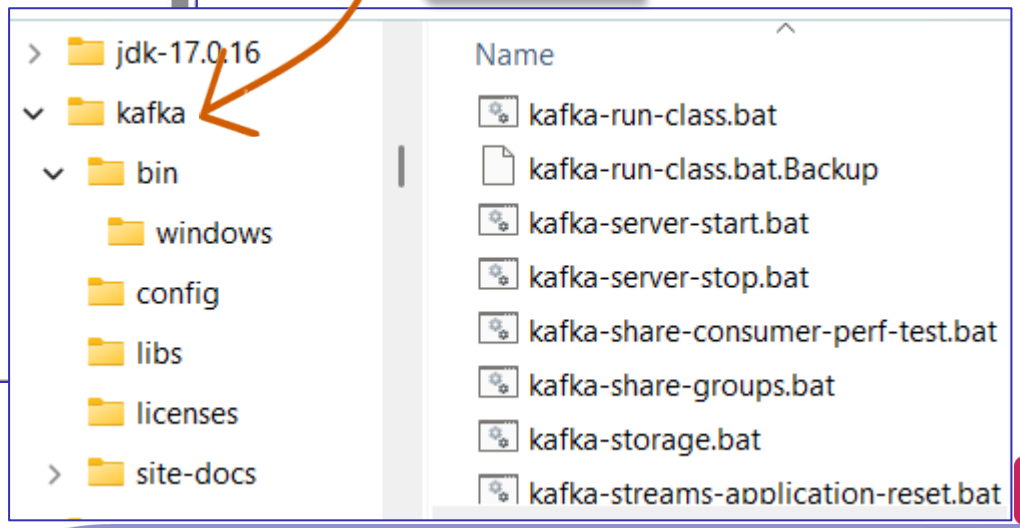




Extract

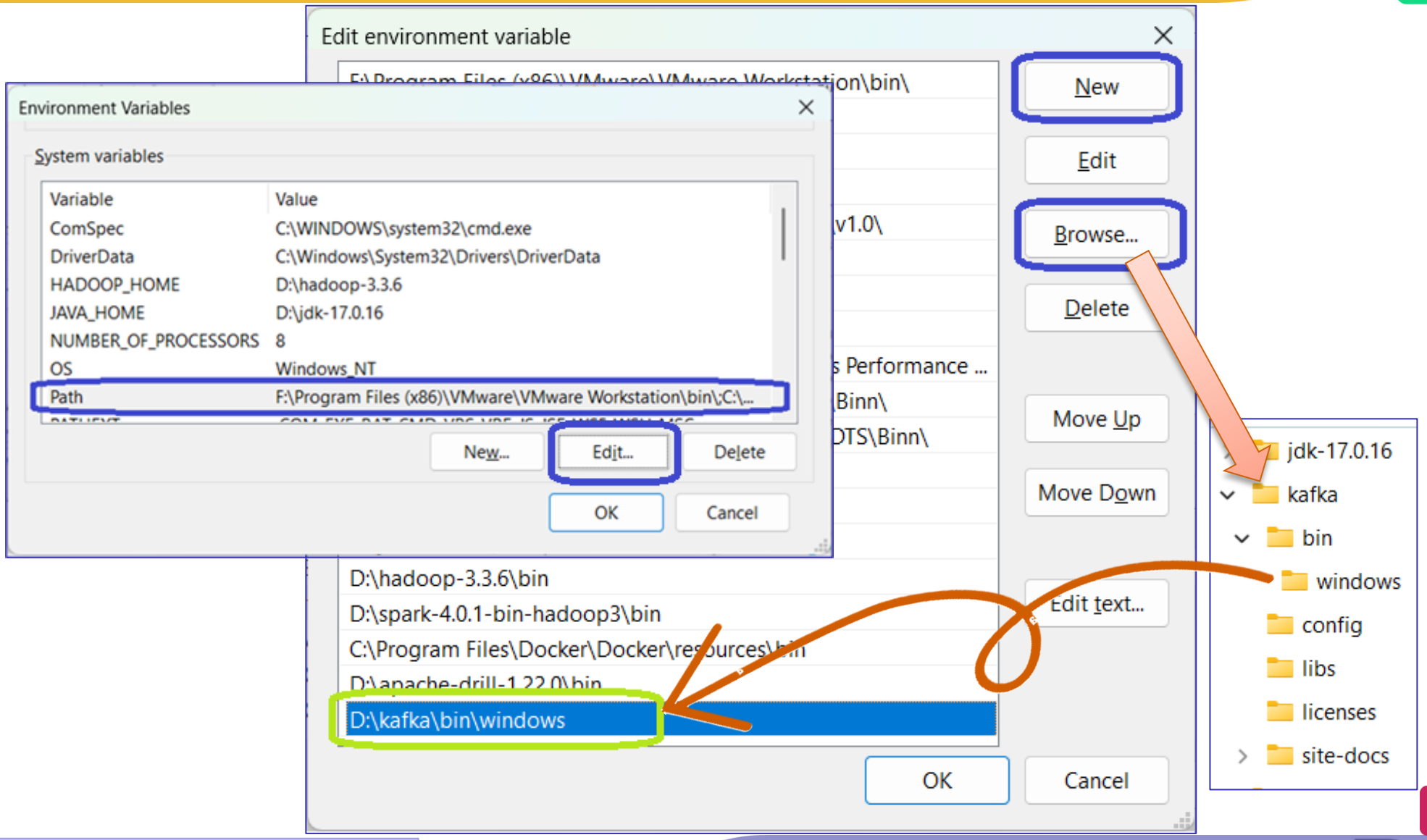


Rename

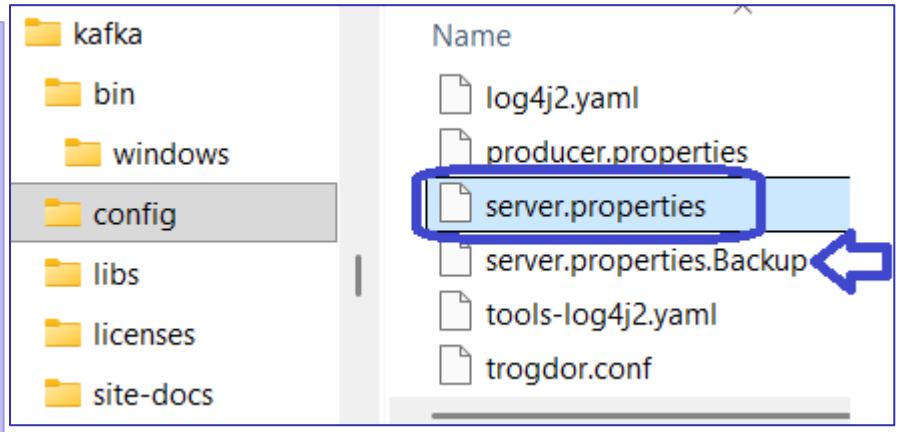


real time

Environment Variables



Edit server.properties




```
############################## Log Basics ##############################

# A comma separated list of directories under which to store log files
log.dirs=/tmp/kraft-combined-logs
```

Edit

```
log.dirs=D:/tmp/kraft-combined-logs
```

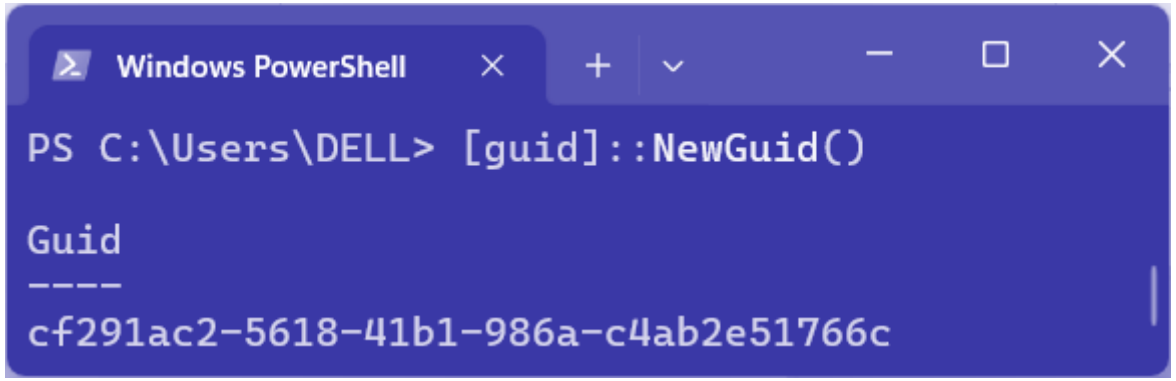
Add

```
controller.quorum.voters=1@localhost:9093
```

Format

```
[guid]::NewGuid()
```

cf291ac2-5618-41b1-986a-c4ab2e51766c




```
kafka-storage.bat format -t cf291ac2-5618-41b1-986a-c4ab2e51766c -c
D:/kafka/config/server.properties
```

```
PS C:\Users\DELL> kafka-storage.bat format -t cf291ac2-5618-41b1-986a-c4ab2e51766c -c D:/kafka/config/server.properties
2025-11-23T16:21:39.024073700Z main ERROR Reconfiguration failed: No configuration found for '266474c2' at 'null' in 'null'
```

a2ecb450-bece-4223-bd34-d8b9867f4ce7

Start

Terminal 1

```
kafka-server-start.bat D:/kafka/config/server.properties
```

```
PS C:\Users\DELL> kafka-server-start.bat D:/kafka/config/server.properties
[2025-11-23 21:31:15,385] INFO Registered `kafka:type=kafka.Log4jController` MBean (kafka.utils.Log4jControllerRegistration$)
[2025-11-23 21:31:16,040] INFO [ControllerServer id=1] Starting controller (kafka.server.ControllerServer)
```

```
[2025-11-23 22:31:18,052] INFO [SnapshotEmitter id=1] Successfully wrote snapshot
00000000000000007144-0000000001 (org.apache.kafka.image.publisher.SnapshotEmitter)
```

Terminal 2

```
kafka-topics.bat --create --topic test-topic --bootstrap-server
localhost:9092 --partitions 1 --replication-factor 1
```

```
PS C:\Users\DELL> kafka-topics.bat --create --topic test-topic --bootstrap-server localhost:9092 --partitions 1 --replication-factor 1
2025-11-23T16:32:24.368347600Z main ERROR Reconfiguration failed: No configuration found for '266474c2' at 'null' in 'null'
Created topic test-topic.
```

```
kafka-topics.bat --bootstrap-server localhost:9092 --list
```

```
PS C:\Users\DELL> kafka-topics.bat --bootstrap-server localhost:9092 --list
2025-11-23T18:06:17.916372Z main ERROR Reconfiguration failed: No configurat
ion found for '266474c2' at 'null' in 'null'
__consumer_offsets
test-topic
```

real time

Producer & Consumer

Terminal 1: For Write

kafka-console-producer.bat --topic test-topic --bootstrap-server localhost:9092

```
PS C:\Users\DELL> kafka-console-producer.bat --topic test-topic --bootstrap-server localhost:9092
2025-11-23T16:33:34.608232900Z main ERROR Reconfiguration failed: No configuration found for '266474c2' at 'null' in 'null'
>Hello
>How are you
```

Terminal 2: For Read

kafka-console-consumer.bat --topic test-topic --bootstrap-server localhost:9092 --from-beginning

```
PS C:\Users\DELL> kafka-console-consumer.bat --topic test-topic --bootstrap-server localhost:9092 --from-beginning
2025-11-23T16:33:55.975183100Z main ERROR Reconfiguration failed: No configuration found for '266474c2' at 'null' in 'null'
Hello
How are you
```

kafka-python

```
[1]: pip install kafka-python
```

```
Collecting kafka-pythonNote: you may need to restart the kernel to use updated packages.

  Downloading kafka_python-2.3.0-py2.py3-none-any.whl.metadata (10.0 kB)
Downloading kafka_python-2.3.0-py2.py3-none-any.whl (326 kB)
Installing collected packages: kafka-python
Successfully installed kafka-python-2.3.0
```

KafaProducer & KafaConsumer

```
[1]: from kafka import KafkaProducer
     import json

[2]: producer = KafkaProducer(bootstrap_servers='localhost:9092',
                               value_serializer=lambda v: json.dumps(v).encode('ascii')
                              )

[3]: producer.send('test-topic',
                   value = {
                       "name": "AaBa",
                       "hotel": "Luxury Hotel",
                       "dateFrom": "25-02-2022",
                       "dateTo": "27-02-2022",
                       "details": "Required the Best Room 😀😀😀😀😀!!!!"
                       }
                  )
     producer.flush()
```

```
[1]: from kafka import KafkaConsumer
     import json

[3]: def safe_json_deserializer(v):
         if v is None:
             return None
         s = v.decode('utf-8').strip()
         if not s:     # empty message
             return None
         try:
             return json.loads(s)
         except json.JSONDecodeError:
             print("Received NON-JSON message:", s)
             return None

[4]: consumer = KafkaConsumer(
         'test-topic',
         bootstrap_servers='localhost:9092',
         value_deserializer=safe_json_deserializer,
         auto_offset_reset='earliest'
     )
```

real time

message

```
[*]: consumer.subscribe(topics=['test-topic'])

for message in consumer:
    print("%d:%d: v=%s" % (message.partition,
                          message.offset,
                          message.value))
```

```
Received NON-JSON message: Hello
Received NON-JSON message: How are you
0:0: v=None
0:1: v=None
0:2: v={'name': 'AaBa', 'hotel': 'Luxury Hotel', 'dateFrom': '25-02-2022', 'dateTo': '27-02-2022', 'details': 'Required the Best Room 😀😀😀😀😀!!!!'}
0:3: v={'name': 'CaDa', 'hotel': 'Average Hotel', 'dateFrom': '26-02-2022', 'dateTo': '28-02-2022', 'details': 'Highway side Room 🚗🚗🚗🚗'}
```