

# Week 5: Kafka Chat App

## (Superset ID: 6364376)

### Screenshot 1: Zookeeper Running

*Zookeeper server started successfully, listening on port 2181.*

```

C:\Windows\system32\cmd.exe /s /c "%~dp0\bin\Windows\zookeeper-server-start.bat %*"
Microsoft Windows [Version 10.0.19045.6093]
(c) Microsoft Corporation. All rights reserved.

C:\Users\adars>cd C:\kafka\kafka_2.13-3.6.1
The system cannot find the path specified.

C:\Users\adars>.\bin\windows\zookeeper-server-start.bat .\config\zookeeper.properties
The system cannot find the path specified.

C:\Users\adars>cd C:\kafka_2.13-3.9.1

C:\kafka_2.13-3.9.1>.\bin\windows\zookeeper-server-start.bat .\config\zookeeper.properties
[2025-07-20 23:01:42,198] INFO Reading configuration from: .\config\zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,201] WARN \tmp\zookeeper is relative. Prepend .\ to indicate that you're sure! (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,202] INFO clientPortAddress is 0.0.0.0:2181 (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,202] INFO secureClientPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,202] INFO observerMasterPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,202] INFO metricsProvider.className is org.apache.zookeeper.metrics.impl.DefaultMetricsProvider (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,205] INFO autopurge.snapRetainCount set to 3 (org.apache.zookeeper.server.DataDirCleanupManager)
[2025-07-20 23:01:42,205] INFO autopurge.purgeInterval set to 0 (org.apache.zookeeper.server.DataDirCleanupManager)
[2025-07-20 23:01:42,205] INFO Purge task is not scheduled. (org.apache.zookeeper.server.DataDirCleanupManager)
[2025-07-20 23:01:42,205] WARN Either no config or no quorum defined in config, running in standalone mode (org.apache.zookeeper.server.quorum.QuorumPeerMain)
[2025-07-20 23:01:42,206] INFO Log4j 1.2 jmx support not found; jmx disabled. (org.apache.zookeeper.jmx.ManagedUtil)
[2025-07-20 23:01:42,206] INFO Reading configuration from: .\config\zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,207] WARN \tmp\zookeeper is relative. Prepend .\ to indicate that you're sure! (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,207] INFO clientPortAddress is 0.0.0.0:2181 (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,208] INFO secureClientPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,208] INFO observerMasterPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,208] INFO metricsProvider.className is org.apache.zookeeper.metrics.impl.DefaultMetricsProvider (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2025-07-20 23:01:42,209] INFO Starting metrics (org.apache.zookeeper.server.ZooKeeperServerMain)
[2025-07-20 23:01:42,210] INFO ServerMetrics initialized with provider org.apache.zookeeper.metrics.impl.DefaultMetricsProvider@5223e5ee (org.apache.zookeeper.server.ZooKeeperServerMain)
[2025-07-20 23:01:42,211] INFO ACL digest algorithm is SHA1 (org.apache.zookeeper.server.auth.DigestAuthenticationProvider)
[2025-07-20 23:01:42,211] INFO zookeeper.digestAuthenticationProvider.enabled = true (org.apache.zookeeper.server.auth.DigestAuthenticationProvider)
[2025-07-20 23:01:42,224] INFO zookeeper.snapshot.trust.empty = false (org.apache.zookeeper.server.persistance.FileTxnSnapLog)
[2025-07-20 23:01:42,231] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,231] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,232] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,232] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,232] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,233] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,233] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,233] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,234] INFO (org.apache.zookeeper.server.ZooKeeperServer)
[2025-07-20 23:01:42,235] INFO (org.apache.zookeeper.server.ZooKeeperServer)

```

### Screenshot 2: Kafka Broker Running

*Kafka server running on localhost:9092, accepting connections.*

```

C:\Command Prompt - \bin\windows>kafka-server-start.bat .\config\server.properties
Microsoft Windows [Version 10.0.19045.6093]
(c) Microsoft Corporation. All rights reserved.

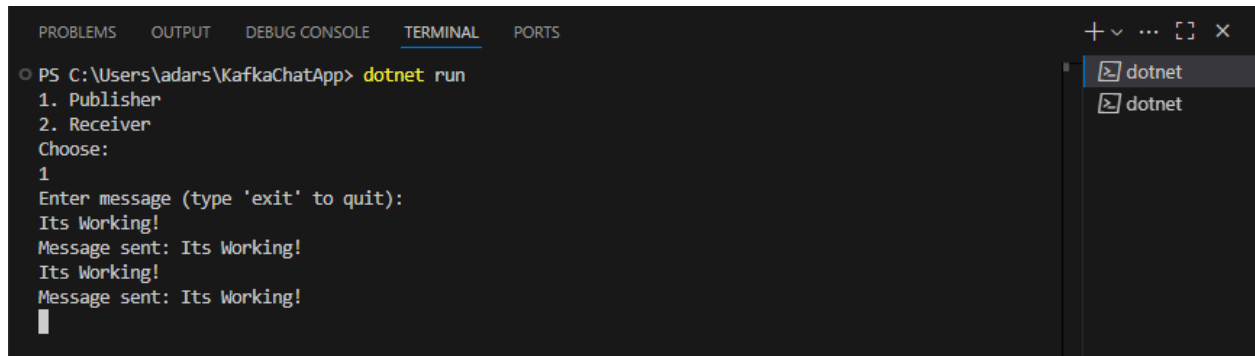
C:\Users\adars>cd C:\kafka-2.13-3.9.1

C:\kafka-2.13-3.9.1>.bin\windows>kafka-server-start.bat .\config\server.properties
[2025-07-28 23:02:12,130] INFO Registered kafkaType=kafka.Logs@Controller.MBean (kafka.utils.log4j.ControllerRegistrations$)
[2025-07-28 23:02:12,305] INFO Setting -D jdk.tls.rejectClientInitiatedRenegotiation=true to disable client-initiated TLS renegotiation (org.apache.zookeeper.common.X509Util)
[2025-07-28 23:02:12,369] INFO starting (kafka.server.KafkaServer)
[2025-07-28 23:02:12,369] INFO Connecting to zookeeper on localhost:2181 (kafka.server.KafkaServer)
[2025-07-28 23:02:12,386] INFO [ZooKeeperClient Kafka server] Initializing a new session to localhost:2181. (kafka.zookeeper.ZooKeeperClient)
[2025-07-28 23:02:12,390] INFO client environment:zookeeper.version=3.8.4-9316c2a7a97e1666d8f4593f34dd6fc36ec436c, built on 2024-02-12 22:16 UTC (org.apache.zookeeper.ZooKeeper)
[2025-07-28 23:02:12,390] INFO client environment:host.name=DESKTOP-VBNIK09 (org.apache.zookeeper.ZooKeeper)
[2025-07-28 23:02:12,390] INFO client environment:java.version=22.0.1 (org.apache.zookeeper.ZooKeeper)
[2025-07-28 23:02:12,390] INFO client environment:java.vendor=Oracle Corporation (org.apache.zookeeper.ZooKeeper)
[2025-07-28 23:02:12,390] INFO client environment:java.home=C:\Program Files\Java\jdk-22 (org.apache.zookeeper.ZooKeeper)
[2025-07-28 23:02:12,391] INFO client environment:java.class.path=C:\kafka-2.13-3.9.1\libs\activation-1.1.1.jar;C:\kafka-2.13-3.9.1\libs\anansi-2.6.1.jar;C:\kafka-2.13-3.9.1\libs\antlr-3.5.3.jar;C\

```

### Screenshot 3: Publisher App Console

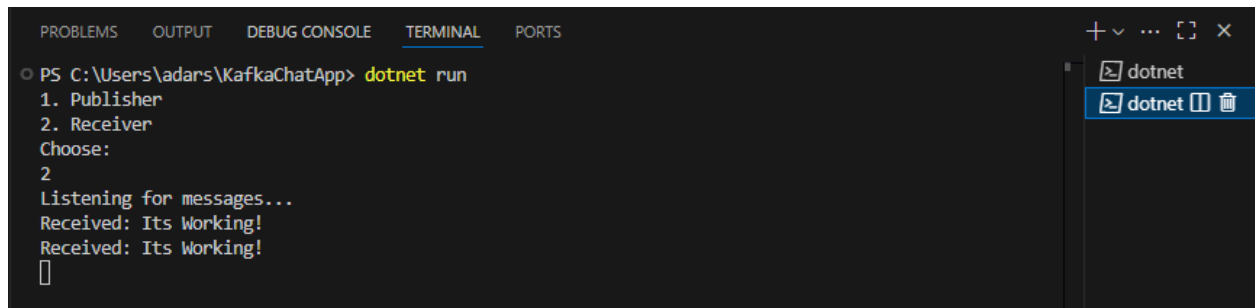
User entering a message like "Its Working!" and confirmation shown: *Message sent: Its Working!*



```
PS C:\Users\adars\KafkaChatApp> dotnet run
1. Publisher
2. Receiver
Choose:
1
Enter message (type 'exit' to quit):
Its Working!
Message sent: Its Working!
Its Working!
Message sent: Its Working!
```

### Screenshot 4: Receiver App Console

Receiver printing: *Received: Its Working!* confirming real-time message reception.



```
PS C:\Users\adars\KafkaChatApp> dotnet run
1. Publisher
2. Receiver
Choose:
2
Listening for messages...
Received: Its Working!
Received: Its Working!
```