

Testing the application:

1. Start Zookeeper

```
kafka -- java -Xmx512M -Xms512M -server -XX:+UseG1GC -XX:MaxGCPauseMillis=20 -XX:InitiatingHeapOccupancyPercent=35 -XX:+ExplicitGCInvokesConc...
Last login: Thu Mar 30 01:23:50 on ttys001
mansoorchoudhury@Mansoor-MacBook-Pro ~ % cd Documents/kafka
mansoorchoudhury@Mansoor-MacBook-Pro kafka % bin/zookeeper-server-start.sh config/zookeeper.properties
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/tools/build/dependant-libs-2.13.10/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/trogdor/build/dependant-libs-2.13.10/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/connect/runtime/build/dependant-libs/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/connect/mirror/build/dependant-libs/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Reload4jLoggerFactory]
[2023-03-30 13:41:27,718] INFO Reading configuration from: config/zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2023-03-30 13:41:27,721] WARN config/zookeeper.properties is relative. Prepend ./ to indicate that you're sure! (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2023-03-30 13:41:27,729] INFO clientPortAddress is 0.0.0.0:2181 (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2023-03-30 13:41:27,730] INFO secureClientPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2023-03-30 13:41:27,730] INFO observerMasterPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2023-03-30 13:41:27,730] INFO metricsProvider.className is org.apache.zookeeper.metrics.impl.DefaultMetricsProvider (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2023-03-30 13:41:27,734] INFO autopurge.snapRetainCount set to 3 (org.apache.zookeeper.server.DataDirCleanupManager)
[2023-03-30 13:41:27,734] INFO autopurge.purgeInterval set to 0 (org.apache.zookeeper.server.DataDirCleanupManager)
```

2. Start Kafka broker

```
kafka -- java -Xmx1G -Xms1G -server -XX:+UseG1GC -XX:MaxGCPauseMillis=20 -XX:InitiatingHeapOccupancyPercent=35 -XX:+ExplicitGCInvokesConcurrent -XX:Ma...
Last login: Thu Mar 30 13:40:33 on ttys005
mansoorchoudhury@Mansoor-MacBook-Pro ~ % cd Documents/kafka
mansoorchoudhury@Mansoor-MacBook-Pro kafka % bin/kafka-server-start.sh config/server.properties
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/tools/build/dependant-libs-2.13.10/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/trogdor/build/dependant-libs-2.13.10/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/connect/runtime/build/dependant-libs/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/Users/mansoorchoudhury/Documents/kafka/connect/mirror/build/dependant-libs/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Reload4jLoggerFactory]
[2023-03-30 13:45:56,955] INFO Registered kafka:type=kafka.Log4jController MBean (kafka.utils.Log4jControllerRegistration$)
[2023-03-30 13:45:57,296] INFO Setting -D jdk.tls.rejectClientInitiatedRenegotiation=true to disable client-initiated TLS renegotiation (org.apache.zookeeper.common.X509Util)
[2023-03-30 13:45:57,392] INFO Registered signal handlers for TERM, INT, HUP (org.apache.kafka.common.utils.LoggingSignalHandler)
[2023-03-30 13:45:57,394] INFO starting (kafka.server.KafkaServer)
[2023-03-30 13:45:57,395] INFO Connecting to zookeeper on localhost:2181 (kafka.server.KafkaServer)
[2023-03-30 13:45:57,413] INFO [ZooKeeperClient Kafka server] Initializing a new session to localhost:2181. (kafka.zookeeper.ZooKeeperClient)
[2023-03-30 13:45:57,419] INFO Client environment:zookeeper.version=3.6.3-6401e4ad2087061bc6b9f80dec2d69f2e3c8660a, built on 04/08/2021 16:35 GMT (org.apache.zookeeper.ZooKeeper)
[2023-03-30 13:45:57,419] INFO Client environment:host.name=localhost (org.apache.zookeeper.ZooKeeper)
```

3. Start Acetech application

```
ssl.keystore.key = null
ssl.keystore.location = null
ssl.keystore.password = null
ssl.keystore.type = JKS
ssl.protocol = TLSv1.3
ssl.provider = null
ssl.secure.random.implementation = null
ssl.trustmanager.algorithm = PKIX
ssl.truststore.certificates = null
ssl.truststore.location = null
ssl.truststore.password = null
ssl.truststore.type = JKS

2023-03-30T13:48:01.198+01:00 INFO 67738 --- [ main] o.a.kafka.common.utils.AppInfoParser : Kafka version: 3.3.2
2023-03-30T13:48:01.198+01:00 INFO 67738 --- [ main] o.a.kafka.common.utils.AppInfoParser : Kafka commitId: b66af662e61082cb
2023-03-30T13:48:01.198+01:00 INFO 67738 --- [ main] o.a.kafka.common.utils.AppInfoParser : Kafka startTimeMs: 1680180481196
2023-03-30T13:48:01.780+01:00 INFO 67738 --- [ adminclient-1] o.a.kafka.common.utils.AppInfoParser : App info kafka.admin.client for adminclient-1 unregistered
2023-03-30T13:48:01.787+01:00 INFO 67738 --- [ adminclient-1] o.apache.kafka.common.metrics.Metrics : Metrics scheduler closed
2023-03-30T13:48:01.787+01:00 INFO 67738 --- [ adminclient-1] o.apache.kafka.common.metrics.Metrics : Closing reporter org.apache.kafka.common.metrics.JmxReporter
2023-03-30T13:48:01.787+01:00 INFO 67738 --- [ adminclient-1] o.apache.kafka.common.metrics.Metrics : Metrics reporters closed
2023-03-30T13:48:01.823+01:00 INFO 67738 --- [ main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8081 (http) with context path ''
2023-03-30T13:48:01.838+01:00 INFO 67738 --- [ main] batch.Acetech.AcetechApplication : Started AcetechApplication in 6.059 seconds (process running for 6.401)
```

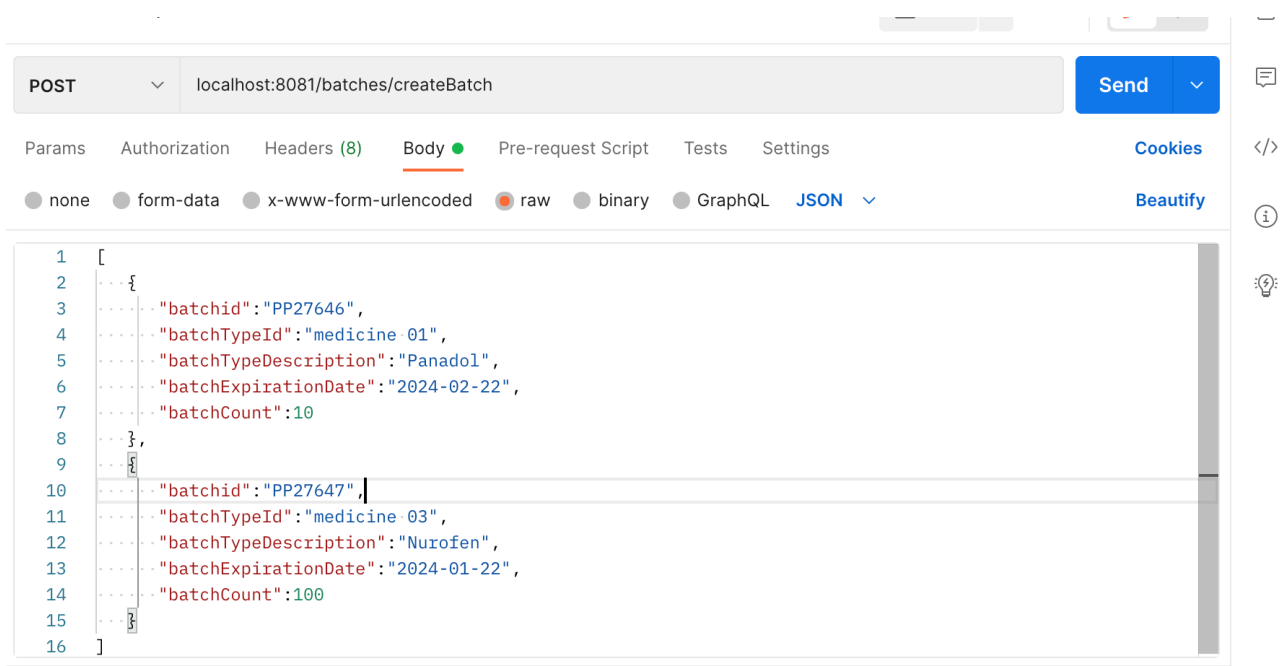
```
Terminal: Local x Local (2) x + v
mansoorchoudhury@Mansoor-MacBook-Pro Acetech % cd ..
mansoorchoudhury@Mansoor-MacBook-Pro BatchReceiving % cd Acetech/mvn spring-boot:run
cd: too many arguments
mansoorchoudhury@Mansoor-MacBook-Pro BatchReceiving % cd Acetech
mansoorchoudhury@Mansoor-MacBook-Pro Acetech % mvn spring-boot:run
[INFO] Scanning for projects...
[INFO]
[INFO] -----< batch:Acetech >-----
[INFO] Building Acetech 0.0.1-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] >>> spring-boot-maven-plugin:3.0.5:run (default-cli) > test-compile @ Acetech >>>
[INFO]
[INFO] --- maven-resources-plugin:3.3.0:resources (default-resources) @ Acetech ---
[INFO] Copying 1 resource
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.10.1:compile (default-compile) @ Acetech ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 12 source files to /Users/mansoorchoudhury/Documents/GIT/BatchProcessingModel/BatchReceiving/Acetech/target/classes
[INFO]
[INFO] --- maven-resources-plugin:3.3.0:testResources (default-testResources) @ Acetech ---
[INFO] Copying 1 resource
[INFO]
[INFO]
```

4. Start Partners application

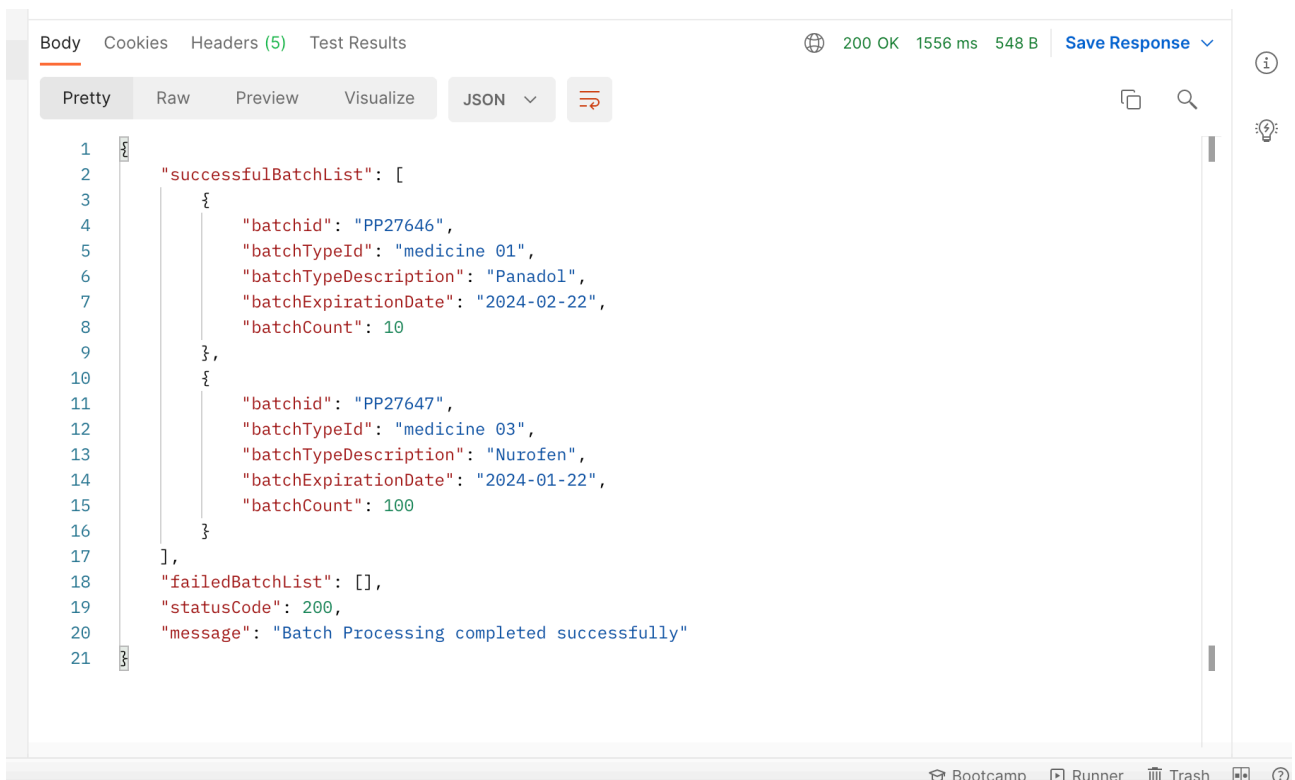
```
Terminal: Local x Local (2) x + v
mansoorchoudhury@Mansoor-MacBook-Pro Partners % mvn spring-boot:run
[INFO] Scanning for projects...
[INFO]
[INFO] -----< org.springframework.boot:Partners >-----
[INFO] Building Partners 3.0.5
[INFO] -----[ jar ]-----
[INFO]
[INFO] >>> spring-boot-maven-plugin:3.0.5:run (default-cli) > test-compile @ Partners >>>
[INFO]
[INFO] --- maven-resources-plugin:3.3.0:resources (default-resources) @ Partners ---
[INFO] Copying 1 resource
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.10.1:compile (default-compile) @ Partners ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 3 source files to /Users/mansoorchoudhury/Documents/GIT/BatchProcessingModel/BatchReceiving/Partners/target/classes
[INFO]
[INFO] --- maven-resources-plugin:3.3.0:testResources (default-testResources) @ Partners ---
[INFO] skip non existing resourceDirectory /Users/mansoorchoudhury/Documents/GIT/BatchProcessingModel/BatchReceiving/Partners/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.10.1:testCompile (default-testCompile) @ Partners ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 3 source files to /Users/mansoorchoudhury/Documents/GIT/BatchProcessingModel/BatchReceiving/Partners/target/test-classes
[INFO]
```

```
Terminal: Local x Local (2) x + v
2023-03-30T13:49:22.013+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] (Re-)joining group
2023-03-30T13:49:22.121+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Request joining group due to: need to re-join with the given member-id: consumer-myGroup-1-6dc66014-59ef-43d3-9a39-edd9ca1509a7
2023-03-30T13:49:22.121+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Request joining group due to: rebalance failed due to 'The group member needs to have a valid member id before actually entering a consumer group.' (MemberIdRequiredException)
2023-03-30T13:49:22.121+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] (Re-)joining group
2023-03-30T13:49:22.162+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Successfully joined group with generation Generation{generationId=45, memberId='consumer-myGroup-1-6dc66014-59ef-43d3-9a39-edd9ca1509a7', protocol='range'}
2023-03-30T13:49:22.164+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Finalized assignment for group at generation 45: {consumer-myGroup-1-6dc66014-59ef-43d3-9a39-edd9ca1509a7=Assignment(partitions=[batch_topic_local-0])}
2023-03-30T13:49:22.299+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Successfully synced group in generation Generation{generationId=45, memberId='consumer-myGroup-1-6dc66014-59ef-43d3-9a39-edd9ca1509a7', protocol='range'}
2023-03-30T13:49:22.299+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Notifying assignor about the new Assignment(partitions=[batch_topic_local-0])
2023-03-30T13:49:22.302+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Adding newly assigned partitions: batch_topic_local-0
2023-03-30T13:49:22.318+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.a.k.c.c.internals.ConsumerCoordinator : [Consumer clientId=consumer-myGroup-1, groupId=myGroup] Setting offset for partition batch_topic_local-0 to the committed offset FetchPosition{offset=6, offsetEpoch=Optional.empty, currentLeader=LeaderAndEpoch{leader=Optional[localhost:9092 (id: 0 rack: null)], epoch=0}}
2023-03-30T13:49:22.320+01:00 INFO 67795 --- [ntainer#0-0-C-1] o.s.k.l.KafkaMessageListenerContainer : myGroup: partitions assigned: [batch_topic_local-0]
```

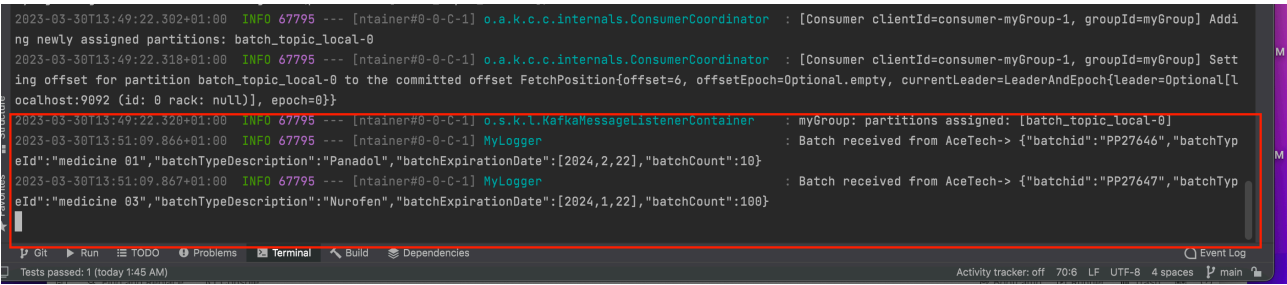
5. Send request through Postman



Response received:



6. Partners get intimidated with new batch created in Acetech



7. Data in Acetech H2 Database

Connect to DB screenshots

English Preferences Tools Help

Login

Saved Settings: Generic H2 (Embedded)

Setting Name: Generic H2 (Embedded) Save Remove

Driver Class: org.h2.Driver

JDBC URL: jdbc:h2:file:./database/batches

User Name: user

Password:

Connect Test Connection

Data persisted for request in step 5 in BATCH table

← → ↺

localhost:8081/h2/login.do?sessionId=0a6505ff876fceb359b19f00ec1d0a75

🔊

🔌

🔒

Auto commit

🔌

Max rows:

1000

⌵

🟢

🟡

🔴

📄

Auto complete

Off

⌵

Auto select

On

⌵

?

📁 jdbc:h2:file:./database/batches

📁 BATCH

📁 INFORMATION_SCHEMA

👤 Users

📄 H2 2.1.214 (2022-06-13)

Run

Run Selected

Auto complete

Clear

SQL statement:

SELECT * FROM BATCH

PP27624	10	2024-02-22	Panadol	medicine 01
PP27625	10	2024-02-22	Panadol	medicine 01
PP27626	10	2024-02-22	Panadol	medicine 01
PP27627	10	2024-02-22	Panadol	medicine 01
PP27628	100	2024-01-22	Nurofen	medicine 03
PP27629	100	2024-01-22	Nurofen	medicine 03
PP27637	10	2024-02-22	Panadol	medicine 01
PP27633	100	2024-01-22	Nurofen	medicine 03
PP27638	10	2024-02-22	Panadol	medicine 01
PP27639	10	2024-02-22	Panadol	medicine 01
PP27640	10	2024-02-22	Panadol	medicine 01
PP27641	10	2024-02-22	Panadol	medicine 01
PP27642	10	2024-02-22	Panadol	medicine 01
PP27643	10	2024-02-22	Panadol	medicine 01
PP27644	10	2024-02-22	Panadol	medicine 01
PP27646	10	2024-02-22	Panadol	medicine 01
PP27647	100	2024-01-22	Nurofen	medicine 03

(23 rows, 26 ms)

Edit