PROJECT 6 – WINDA AT

1. Zookeeper Log


```
ache.zookeeper.server.quorum.QuorumPeerConfig)
[2022-10-17 04:25:26,107] INFO clientPortAddress is 0.0.0.0:2181 (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2022-10-17 04:25:26,107] INFO secureClientPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2022-10-17 04:25:26,108] INFO observerMasterPort is not set (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2022-10-17 04:25:26,108] INFO metricsProvider.className is org.apache.zookeeper.metrics.impl.DefaultMetricsProvider (or
g.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2022-10-17 04:25:26,109] INFO Starting server (org.apache.zookeeper.server.ZooKeeperServerMain)
[2022-10-17 04:25:26,158] INFO ServerMetrics initialized with provider org.apache.zookeeper.metrics.impl.DefaultMetricsP
rovider@366e2eef (org.apache.zookeeper.server.ServerMetrics)
[2022-10-17 04:25:26,173] INFO zookeeper.snapshot.trust.empty : false (org.apache.zookeeper.server.persistence.FileTxnSn
apLog)
[2022-10-17 04:25:26,217] INFO  (org.apache.zookeeper.server.ZooKeeperServer)
[2022-10-17 04:25:26,217] INFO   _____                    _                                (org.apache.zookeep
er.server.ZooKeeperServer)
[2022-10-17 04:25:26,218] INFO  |___  /                  | |                               (org.apache.zookeep
er.server.ZooKeeperServer)
[2022-10-17 04:25:26,218] INFO     / /   ___    ___     | | __   ___    ___   _ __      ___   _ __     (org.apache.zookeep
er.server.ZooKeeperServer)
[2022-10-17 04:25:26,219] INFO    / /   / _ \  / _ \    | |/ /  / _ \  / _ \ | '_ \    / _ \ | '__|   (org.apache.zookeeper
.server.ZooKeeperServer)
[2022-10-17 04:25:26,219] INFO   / /__  | (_) || (_) |   |   <  | __/ | __/ || |_) |  | __/ | |        (org.apache.zookeepe
r.server.ZooKeeperServer)
[2022-10-17 04:25:26,220] INFO  /_____|  \___/  \___/   |_|\_\  \___|  \___| | .__/    \___| |_| (org.apache.zookeeper.se
rver.ZooKeeperServer)
[2022-10-17 04:25:26,220] INFO                                             | |                (org.apache.zookee
per.server.ZooKeeperServer)
[2022-10-17 04:25:26,221] INFO                                             |_|                (org.apache.zookee
per.server.ZooKeeperServer)
[2022-10-17 04:25:26,221] INFO  (org.apache.zookeeper.server.ZooKeeperServer)
[2022-10-17 04:25:26,228] INFO Server environment:zookeeper.version=3.6.3--6401e4ad2087061bc6b9f80dec2d69f2e3c8660a_hui
```



```
read(s), 24 worker threads, and 64 kB direct buffers. (org.apache.zookeeper.server.NIOServerCnxnFactory)
[2022-10-17 04:25:26,345] INFO binding to port 0.0.0.0/0.0.0.0:2181 (org.apache.zookeeper.server.NIOServerCnxnFactory)
[2022-10-17 04:25:26,427] INFO Using org.apache.zookeeper.server.watch.WatchManager as watch manager (org.apache.zookeep
er.server.watch.WatchManagerFactory)
[2022-10-17 04:25:26,427] INFO Using org.apache.zookeeper.server.watch.WatchManager as watch manager (org.apache.zookeep
er.server.watch.WatchManagerFactory)
[2022-10-17 04:25:26,428] INFO zookeeper.snapshotSizeFactor = 0.33 (org.apache.zookeeper.server.ZKDatabase)
[2022-10-17 04:25:26,428] INFO zookeeper.commitLogCount=500 (org.apache.zookeeper.server.ZKDatabase)
[2022-10-17 04:25:26,446] INFO zookeeper.snapshot.compression.method = CHECKED (org.apache.zookeeper.server.persistence.
SnapStream)
[2022-10-17 04:25:26,487] INFO Reading snapshot /tmp/zookeeper/version-2/snapshot.0 (org.apache.zookeeper.server.persist
ence.FileSnap)
[2022-10-17 04:25:26,502] INFO The digest value is empty in snapshot (org.apache.zookeeper.server.DataTree)
[2022-10-17 04:25:26,605] INFO 41 txns loaded in 82 ms (org.apache.zookeeper.server.persistence.FileTxnSnapLog)
[2022-10-17 04:25:26,606] INFO Snapshot loaded in 176 ms, highest zxid is 0x29, digest is 76368178202 (org.apache.zookee
per.server.ZKDatabase)
[2022-10-17 04:25:26,607] INFO Snapshotting: 0x29 to /tmp/zookeeper/version-2/snapshot.29 (org.apache.zookeeper.server.p
ersistence.FileTxnSnapLog)
[2022-10-17 04:25:26,614] INFO Snapshot taken in 7 ms (org.apache.zookeeper.server.ZooKeeperServer)
[2022-10-17 04:25:26,660] INFO PrepRequestProcessor (sid:0) started, reconfigEnabled=false (org.apache.zookeeper.server.
PrepRequestProcessor)
[2022-10-17 04:25:26,661] INFO zookeeper.request_throttler.shutdownTimeout = 10000 (org.apache.zookeeper.server.RequestT
hrottler)
[2022-10-17 04:25:26,745] INFO Using checkIntervalMs=60000 maxPerMinute=10000 maxNeverUsedIntervalMs=0 (org.apache.zooke
eper.server.ContainerManager)
[2022-10-17 04:25:26,749] INFO ZooKeeper audit is disabled. (org.apache.zookeeper.audit.ZKAuditProvider)
[2022-10-17 04:25:45,154] INFO Expiring session 0x10003d9924f0000, timeout of 18000ms exceeded (org.apache.zookeeper.ser
ver.ZooKeeperServer)
[2022-10-17 04:25:45,173] INFO Creating new log file: log.2a (org.apache.zookeeper.server.persistence.FileTxnLog)
```

2. Kafkaserver Log


```
erationReaper)
[2022-10-17 04:33:26,686] INFO [GroupCoordinator 0]: Starting up. (kafka.coordinator.group.GroupCoordinator)
[2022-10-17 04:33:26,701] INFO [GroupCoordinator 0]: Startup complete. (kafka.coordinator.group.GroupCoordinator)
[2022-10-17 04:33:26,757] INFO [TransactionCoordinator id=0] Starting up. (kafka.coordinator.transaction.TransactionCoor
dinator)
[2022-10-17 04:33:26,772] INFO [Transaction Marker Channel Manager 0]: Starting (kafka.coordinator.transaction.Transacti
onMarkerChannelManager)
[2022-10-17 04:33:26,772] INFO [TransactionCoordinator id=0] Startup complete. (kafka.coordinator.transaction.Transactio
nCoordinator)
[2022-10-17 04:33:26,879] INFO [ExpirationReaper-0-AlterAcls]: Starting (kafka.server.DelayedOperationPurgatory$ExpiredO
perationReaper)
[2022-10-17 04:33:26,928] INFO [/config/changes-event-process-thread]: Starting (kafka.common.ZkNodeChangeNotificationLi
stener$ChangeEventProcessThread)
[2022-10-17 04:33:26,986] INFO [SocketServer listenerType=ZK_BROKER, nodeId=0] Enabling request processing. (kafka.netwo
rk.SocketServer)
[2022-10-17 04:33:27,007] INFO Kafka version: 3.3.1 (org.apache.kafka.common.utils.AppInfoParser)
[2022-10-17 04:33:27,008] INFO Kafka commitId: e23c59d00e687ff5 (org.apache.kafka.common.utils.AppInfoParser)
[2022-10-17 04:33:27,008] INFO Kafka startTimeMs: 1665956006993 (org.apache.kafka.common.utils.AppInfoParser)
[2022-10-17 04:33:27,012] INFO [KafkaServer id=0] started (kafka.server.KafkaServer)
[2022-10-17 04:33:27,125] INFO [BrokerToControllerChannelManager broker=0 name=forwarding]: Recorded new controller, fro
m now on will use broker HPG732-014.kpk.go.id:9092 (id: 0 rack: null) (kafka.server.BrokerToControllerRequestThread)
[2022-10-17 04:33:27,145] INFO [BrokerToControllerChannelManager broker=0 name=alterPartition]: Recorded new controller,
from now on will use broker HPG732-014.kpk.go.id:9092 (id: 0 rack: null) (kafka.server.BrokerToControllerRequestThread)
[2022-10-17 04:33:27,180] INFO [ReplicaFetcherManager on broker 0] Removed fetcher for partitions Set(quickstart-events-
0, final-project-0) (kafka.server.ReplicaFetcherManager)
[2022-10-17 04:33:27,202] INFO [Partition quickstart-events-0 broker=0] Log loaded for partition quickstart-events-0 wit
h initial high watermark 0 (kafka.cluster.Partition)
[2022-10-17 04:33:27,237] INFO [Partition final-project-0 broker=0] Log loaded for partition final-project-0 with initia
l high watermark 0 (kafka.cluster.Partition)
```

3. consumer.py

```
winda@HPG732-014: /mnt/d/linux/ex_stream_processing_fraud_detection/producer
{'Id': 101, 'logTimestamp': 1653388084000, 'devideId': 'Android', 'logActivity': 'Logout'}
{'Id': 29, 'logTimestamp': 1651165456000, 'devideId': 'Windows Phone', 'logActivity': 'Search'}
{'Id': 85, 'logTimestamp': 1653599681000, 'devideId': 'Android', 'logActivity': 'Logout'}
{'Id': 104, 'logTimestamp': 1653212237000, 'devideId': 'Windows Phone', 'logActivity': 'Logout'}
{'Id': 94, 'logTimestamp': 1653159836000, 'devideId': 'OS', 'logActivity': 'Login'}
{'Id': 77, 'logTimestamp': 1652765900000, 'devideId': 'Windows Phone', 'logActivity': 'Logout'}
{'Id': 28, 'logTimestamp': 1651109808000, 'devideId': 'OS', 'logActivity': 'Search'}
{'Id': 100, 'logTimestamp': 1651121254000, 'devideId': 'Windows Phone', 'logActivity': 'Logout'}
{'Id': 36, 'logTimestamp': 1653408431000, 'devideId': 'OS', 'logActivity': 'Login'}
{'Id': 98, 'logTimestamp': 1651412292000, 'devideId': 'OS', 'logActivity': 'Search'}
{'Id': 59, 'logTimestamp': 1652562481000, 'devideId': 'Windows Phone', 'logActivity': 'Login'}
{'Id': 25, 'logTimestamp': 1651121288000, 'devideId': 'Android', 'logActivity': 'Logout'}
{'Id': 26, 'logTimestamp': 1653280848000, 'devideId': 'Windows Phone', 'logActivity': 'Menu'}
{'Id': 63, 'logTimestamp': 1653359244000, 'devideId': 'Android', 'logActivity': 'Login'}
{'Id': 51, 'logTimestamp': 1653011215000, 'devideId': 'OS', 'logActivity': 'Menu'}
{'Id': 47, 'logTimestamp': 1651174943000, 'devideId': 'OS', 'logActivity': 'Search'}
{'Id': 13, 'logTimestamp': 1651581168000, 'devideId': 'Windows Phone', 'logActivity': 'Payment'}
{'Id': 58, 'logTimestamp': 1651620522000, 'devideId': 'OS', 'logActivity': 'Logout'}
{'Id': 56, 'logTimestamp': 1652236716000, 'devideId': 'OS', 'logActivity': 'Login'}
{'Id': 67, 'logTimestamp': 1651355122000, 'devideId': 'Windows Phone', 'logActivity': 'Search'}
{'Id': 64, 'logTimestamp': 1652034313000, 'devideId': 'OS', 'logActivity': 'Menu'}
{'Id': 30, 'logTimestamp': 1651623174000, 'devideId': 'OS', 'logActivity': 'Search'}
{'Id': 104, 'logTimestamp': 1652738254000, 'devideId': 'Android', 'logActivity': 'Login'}
{'Id': 75, 'logTimestamp': 1652261166000, 'devideId': 'Windows Phone', 'logActivity': 'Login'}
{'Id': 48, 'logTimestamp': 1652479380000, 'devideId': 'OS', 'logActivity': 'Logout'}
{'Id': 73, 'logTimestamp': 1651835321000, 'devideId': 'Android', 'logActivity': 'Login'}
{'Id': 102, 'logTimestamp': 1653523114000, 'devideId': 'Android', 'logActivity': 'Menu'}
{'Id': 13, 'logTimestamp': 1651502938000, 'devideId': 'Windows Phone', 'logActivity': 'Menu'}
{'Id': 23, 'logTimestamp': 1653655683000, 'devideId': 'Windows Phone', 'logActivity': 'Menu'}
{'Id': 3, 'logTimestamp': 1651066327000, 'devideId': 'Android', 'logActivity': 'Menu'}
{'Id': 102, 'logTimestamp': 1651532821000, 'devideId': 'Windows Phone', 'logActivity': 'Login'}
{'Id': 52, 'logTimestamp': 1652161838000, 'devideId': 'Windows Phone', 'logActivity': 'Login'}
{'Id': 101, 'logTimestamp': 1652921752000, 'devideId': 'Windows Phone', 'logActivity': 'Logout'}
{'Id': 69, 'logTimestamp': 1652550656000, 'devideId': 'Windows Phone', 'logActivity': 'Menu'}
{'Id': 28, 'logTimestamp': 1651289642000, 'devideId': 'Android', 'logActivity': 'Search'}
{'Id': 105, 'logTimestamp': 1653482362000, 'devideId': 'Windows Phone', 'logActivity': 'Payment'}
{'Id': 43, 'logTimestamp': 1651282527000, 'devideId': 'OS', 'logActivity': 'Payment'}
{'Id': 21, 'logTimestamp': 1652153176000, 'devideId': 'OS', 'logActivity': 'Payment'}
{'Id': 63, 'logTimestamp': 1652126525000, 'devideId': 'OS', 'logActivity': 'Menu'}
{'Id': 44, 'logTimestamp': 1651772730000, 'devideId': 'OS', 'logActivity': 'Payment'}
{'Id': 83, 'logTimestamp': 1652236471000, 'devideId': 'Android', 'logActivity': 'Payment'}
```

4. producer.py

```
winda@HPG732-014: /mnt/d/linux/ex_stream_processing_fraud_detection
User Predict: Fraud
Records = {'Id': 55, 'logTimestamp': 1652727995000, 'devideId': 'Android', 'logActivity': 'Login'}
User Predict: Fraud
Records = {'Id': 31, 'logTimestamp': 1653108037000, 'devideId': 'OS', 'logActivity': 'Login'}
User Predict: Fraud
Records = {'Id': 28, 'logTimestamp': 1651930125000, 'devideId': 'Windows Phone', 'logActivity': 'Logout'}
User Predict: Fraud
Records = {'Id': 66, 'logTimestamp': 1652681083000, 'devideId': 'Windows Phone', 'logActivity': 'Login'}
User Predict: Fraud
Records = {'Id': 69, 'logTimestamp': 1652872437000, 'devideId': 'OS', 'logActivity': 'Menu'}
User Predict: Fraud
Records = {'Id': 38, 'logTimestamp': 1651367138000, 'devideId': 'OS', 'logActivity': 'Login'}
User Predict: Fraud
Records = {'Id': 76, 'logTimestamp': 1651936358000, 'devideId': 'OS', 'logActivity': 'Menu'}
User Predict: Fraud
Records = {'Id': 68, 'logTimestamp': 1651111059000, 'devideId': 'OS', 'logActivity': 'Menu'}
User Predict: Fraud
Records = {'Id': 64, 'logTimestamp': 1653187871000, 'devideId': 'Windows Phone', 'logActivity': 'Logout'}
User Predict: Fraud
Records = {'Id': 83, 'logTimestamp': 1653366424000, 'devideId': 'OS', 'logActivity': 'Search'}
User Predict: Fraud
Records = {'Id': 97, 'logTimestamp': 1652413551000, 'devideId': 'Android', 'logActivity': 'Payment'}
User Predict: Fraud
Records = {'Id': 81, 'logTimestamp': 1651315248000, 'devideId': 'Windows Phone', 'logActivity': 'Search'}
User Predict: Fraud
Records = {'Id': 39, 'logTimestamp': 1653618150000, 'devideId': 'OS', 'logActivity': 'Login'}
User Predict: Fraud
Records = {'Id': 43, 'logTimestamp': 1653434985000, 'devideId': 'Android', 'logActivity': 'Logout'}
User Predict: Fraud
```
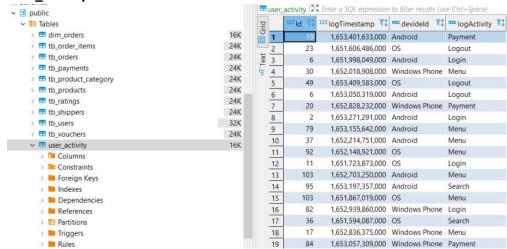
5. User_activity Table

Schema tree (public > Tables):
- dim_orders — 16K
- tb_order_items — 24K
- tb_orders — 24K
- tb_payments — 24K
- tb_product_category — 24K
- tb_products — 24K
- tb_ratings — 24K
- tb_shippers — 24K
- tb_users — 32K
- tb_vouchers — 24K
- user_activity — 16K
  - Columns
  - Constraints
  - Foreign Keys
  - Indexes
  - Dependencies
  - References
  - Partitions
  - Triggers
  - Rules

user_activity | Enter a SQL expression to filter results (use Ctrl+Space)

	Id	logTimestamp	devideId	logActivity
1	19	1,653,401,633,000	Android	Payment
2	23	1,651,606,486,000	OS	Logout
3	6	1,651,998,049,000	Android	Login
4	30	1,652,018,908,000	Windows Phone	Menu
5	49	1,653,409,583,000	OS	Logout
6	6	1,653,050,319,000	Android	Logout
7	20	1,652,828,232,000	Windows Phone	Payment
8	2	1,653,271,291,000	Android	Login
9	79	1,653,155,642,000	Android	Menu
10	37	1,652,214,751,000	Android	Menu
11	92	1,652,148,921,000	OS	Menu
12	11	1,651,723,873,000	OS	Login
13	103	1,652,703,250,000	Android	Menu
14	95	1,653,197,357,000	Android	Search
15	103	1,651,867,019,000	OS	Menu
16	82	1,652,939,860,000	Windows Phone	Login
17	36	1,651,594,087,000	OS	Search
18	17	1,652,836,375,000	Windows Phone	Menu
19	84	1,653,057,309,000	Windows Phone	Payment

6. User_fraud Table

Schema tree (public > Tables):
- dim_orders — 16K
- tb_order_items — 24K
- tb_orders — 24K
- tb_payments — 24K
- tb_product_category — 24K
- tb_products — 24K
- tb_ratings — 24K
- tb_shippers — 24K
- tb_users — 32K
- tb_vouchers — 24K
- user_activity — 16K
  - Columns
  - Constraints
  - Foreign Keys
  - Indexes
  - Dependencies
  - References
  - Partitions
  - Triggers
  - Rules
- user_fraud — 16K

user_fraud | Enter a SQL expression

	userId	userFlag
1	19	Fraud
2	23	Fraud
3	6	Fraud
4	30	Fraud
5	49	Fraud
6	6	Fraud
7	20	Fraud
8	2	Fraud
9	79	Fraud
10	37	Fraud
11	92	Fraud
12	11	Fraud
13	103	Fraud
14	95	Fraud
15	103	Fraud
16	82	Fraud
17	36	Fraud
18	17	Fraud
19	84	Fraud
20	24	Fraud