

1. Producer:

raykah@HPG732-009: /mnt/d/linux/stream_processing_fraud_detection_new/producer

```
{ 'Id': 73, 'logTimestamp': 1651941251000, 'deviceId': 'OS', 'logActivity': 'Logout' }
{ 'Id': 21, 'logTimestamp': 1653197162000, 'deviceId': 'OS', 'logActivity': 'Logout' }
{ 'Id': 43, 'logTimestamp': 1652280957000, 'deviceId': 'Windows Phone', 'logActivity': 'Login' }
{ 'Id': 46, 'logTimestamp': 1653399504000, 'deviceId': 'Android', 'logActivity': 'Search' }
{ 'Id': 80, 'logTimestamp': 1652261913000, 'deviceId': 'Android', 'logActivity': 'Logout' }
{ 'Id': 5, 'logTimestamp': 1652517539000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 66, 'logTimestamp': 1651549301000, 'deviceId': 'Windows Phone', 'logActivity': 'Search' }
{ 'Id': 49, 'logTimestamp': 1653277257000, 'deviceId': 'Android', 'logActivity': 'Search' }
{ 'Id': 42, 'logTimestamp': 1651803626000, 'deviceId': 'OS', 'logActivity': 'Payment' }
{ 'Id': 100, 'logTimestamp': 1651600406000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 57, 'logTimestamp': 1652730570000, 'deviceId': 'Android', 'logActivity': 'Menu' }
{ 'Id': 68, 'logTimestamp': 1651377919000, 'deviceId': 'Android', 'logActivity': 'Payment' }
{ 'Id': 13, 'logTimestamp': 1653390980000, 'deviceId': 'OS', 'logActivity': 'Menu' }
{ 'Id': 93, 'logTimestamp': 1651948858000, 'deviceId': 'OS', 'logActivity': 'Search' }
{ 'Id': 18, 'logTimestamp': 1651987064000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 64, 'logTimestamp': 1653649934000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 51, 'logTimestamp': 1652653146000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 87, 'logTimestamp': 1652297955000, 'deviceId': 'OS', 'logActivity': 'Menu' }
{ 'Id': 85, 'logTimestamp': 1652255499000, 'deviceId': 'OS', 'logActivity': 'Logout' }
{ 'Id': 21, 'logTimestamp': 1653617627000, 'deviceId': 'Android', 'logActivity': 'Login' }
{ 'Id': 90, 'logTimestamp': 1653617827000, 'deviceId': 'OS', 'logActivity': 'Search' }
{ 'Id': 27, 'logTimestamp': 1652601593000, 'deviceId': 'Android', 'logActivity': 'Menu' }
{ 'Id': 27, 'logTimestamp': 1652230929000, 'deviceId': 'Android', 'logActivity': 'Logout' }
{ 'Id': 80, 'logTimestamp': 1652557480000, 'deviceId': 'Windows Phone', 'logActivity': 'Payment' }
{ 'Id': 61, 'logTimestamp': 1651660447000, 'deviceId': 'OS', 'logActivity': 'Search' }
{ 'Id': 19, 'logTimestamp': 1652472378000, 'deviceId': 'Android', 'logActivity': 'Logout' }
{ 'Id': 58, 'logTimestamp': 1653059379000, 'deviceId': 'OS', 'logActivity': 'Login' }
{ 'Id': 100, 'logTimestamp': 1653579699000, 'deviceId': 'Android', 'logActivity': 'Search' }
{ 'Id': 57, 'logTimestamp': 1651406770000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 84, 'logTimestamp': 1652322897000, 'deviceId': 'OS', 'logActivity': 'Logout' }
{ 'Id': 58, 'logTimestamp': 1653480534000, 'deviceId': 'OS', 'logActivity': 'Menu' }
{ 'Id': 56, 'logTimestamp': 1653263464000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 9, 'logTimestamp': 1653184772000, 'deviceId': 'OS', 'logActivity': 'Menu' }
{ 'Id': 97, 'logTimestamp': 1652537823000, 'deviceId': 'Windows Phone', 'logActivity': 'Login' }
{ 'Id': 100, 'logTimestamp': 1653358296000, 'deviceId': 'Windows Phone', 'logActivity': 'Payment' }
{ 'Id': 101, 'logTimestamp': 1653583456000, 'deviceId': 'OS', 'logActivity': 'Logout' }
{ 'Id': 37, 'logTimestamp': 1653601018000, 'deviceId': 'OS', 'logActivity': 'Search' }
{ 'Id': 48, 'logTimestamp': 1652715556000, 'deviceId': 'Android', 'logActivity': 'Login' }
{ 'Id': 0, 'logTimestamp': 1651351393000, 'deviceId': 'Windows Phone', 'logActivity': 'Payment' }
{ 'Id': 13, 'logTimestamp': 1653172192000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
{ 'Id': 19, 'logTimestamp': 1653558521000, 'deviceId': 'OS', 'logActivity': 'Payment' }
```

2. Consumer:

raykah@HPG732-009: /mnt/d/linux/stream_processing_fraud_detection_new

```
User Predict: Fraud
Records = { 'Id': 101, 'logTimestamp': 1651379115000, 'deviceId': 'Android', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 43, 'logTimestamp': 1653037725000, 'deviceId': 'Android', 'logActivity': 'Menu' }
User Predict: Fraud
Records = { 'Id': 89, 'logTimestamp': 1651114669000, 'deviceId': 'OS', 'logActivity': 'Menu' }
User Predict: Fraud
Records = { 'Id': 88, 'logTimestamp': 1651811618000, 'deviceId': 'OS', 'logActivity': 'Login' }
User Predict: Fraud
Records = { 'Id': 51, 'logTimestamp': 1651637396000, 'deviceId': 'Windows Phone', 'logActivity': 'Payment' }
User Predict: Fraud
Records = { 'Id': 55, 'logTimestamp': 1651118551000, 'deviceId': 'Android', 'logActivity': 'Login' }
User Predict: Fraud
Records = { 'Id': 46, 'logTimestamp': 1651352734000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
User Predict: Fraud
Records = { 'Id': 12, 'logTimestamp': 1652717736000, 'deviceId': 'OS', 'logActivity': 'Menu' }
User Predict: Fraud
Records = { 'Id': 53, 'logTimestamp': 1652007349000, 'deviceId': 'OS', 'logActivity': 'Logout' }
User Predict: Fraud
Records = { 'Id': 96, 'logTimestamp': 1653608569000, 'deviceId': 'Android', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 76, 'logTimestamp': 1653418528000, 'deviceId': 'Windows Phone', 'logActivity': 'Payment' }
User Predict: Fraud
Records = { 'Id': 28, 'logTimestamp': 1653245908000, 'deviceId': 'Windows Phone', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 59, 'logTimestamp': 1652234189000, 'deviceId': 'OS', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 73, 'logTimestamp': 1652414073000, 'deviceId': 'OS', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 54, 'logTimestamp': 1651801969000, 'deviceId': 'Windows Phone', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 98, 'logTimestamp': 1651204744000, 'deviceId': 'Android', 'logActivity': 'Menu' }
User Predict: Fraud
Records = { 'Id': 21, 'logTimestamp': 1651636949000, 'deviceId': 'Android', 'logActivity': 'Login' }
User Predict: Fraud
Records = { 'Id': 6, 'logTimestamp': 1653550568000, 'deviceId': 'OS', 'logActivity': 'Search' }
User Predict: Fraud
Records = { 'Id': 0, 'logTimestamp': 1653303730000, 'deviceId': 'Windows Phone', 'logActivity': 'Logout' }
User Predict: Fraud
Records = { 'Id': 55, 'logTimestamp': 1652461411000, 'deviceId': 'Windows Phone', 'logActivity': 'Payment' }
User Predict: Fraud
```

3. Tabel user_activity

The screenshot shows a database management tool interface. On the left, a tree view displays the database structure for 'digitalskola_source' on 'localhost:2022'. The 'public' schema contains several tables, with 'user_activity' highlighted, showing a size of 80K. The main window displays the 'user_activity' table with columns: id, logTimestamp, devideld, and logActivity. The table contains 200 rows of data, showing user activity logs with timestamps, device IDs, and activity types like 'Menu', 'Search', 'Payment', 'Login', and 'Logout'.

id	logTimestamp	devideld	logActivity
76	1,651,936,358,000	OS	Menu
68	1,651,111,059,000	OS	Menu
64	1,653,187,871,000	Windows Phone	Logout
83	1,653,366,424,000	OS	Search
97	1,652,413,551,000	Android	Payment
81	1,651,315,248,000	Windows Phone	Search
39	1,653,618,150,000	OS	Login
43	1,653,434,985,000	Android	Logout
45	1,652,458,314,000	Windows Phone	Payment
81	1,651,864,164,000	OS	Search
71	1,653,493,411,000	Android	Payment
38	1,651,192,659,000	Windows Phone	Search
88	1,653,604,185,000	Android	Search
90	1,651,396,866,000	Android	Search
39	1,653,485,963,000	Windows Phone	Login
29	1,651,800,387,000	Windows Phone	Logout
95	1,652,025,093,000	OS	Search
8	1,651,932,928,000	Android	Payment
71	1,652,500,155,000	OS	Search
19	1,653,243,117,000	Windows Phone	Logout
57	1,653,394,659,000	Windows Phone	Login
55	1,652,473,971,000	OS	Menu
59	1,651,484,404,000	OS	Login

4. Tabel user_fraud

The screenshot shows the same database management tool interface, but now displaying the 'user_fraud' table. The table has columns: userid, userFlag, and logActivity. The table contains 200 rows of data, showing user activity logs where the 'userFlag' is set to 'Fraud'. The 'logActivity' column shows various actions like 'Fraud', 'Search', 'Payment', 'Login', and 'Logout'.

userid	userFlag	logActivity
76	Fraud	Fraud
68	Fraud	Fraud
64	Fraud	Fraud
83	Fraud	Fraud
97	Fraud	Fraud
81	Fraud	Fraud
39	Fraud	Fraud
43	Fraud	Fraud
45	Fraud	Fraud
81	Fraud	Fraud
71	Fraud	Fraud
38	Fraud	Fraud
88	Fraud	Fraud
90	Fraud	Fraud
39	Fraud	Fraud
29	Fraud	Fraud
95	Fraud	Fraud
8	Fraud	Fraud
71	Fraud	Fraud
19	Fraud	Fraud
57	Fraud	Fraud
55	Fraud	Fraud
59	Fraud	Fraud