

Artificial Intelligence in the Financial Sector

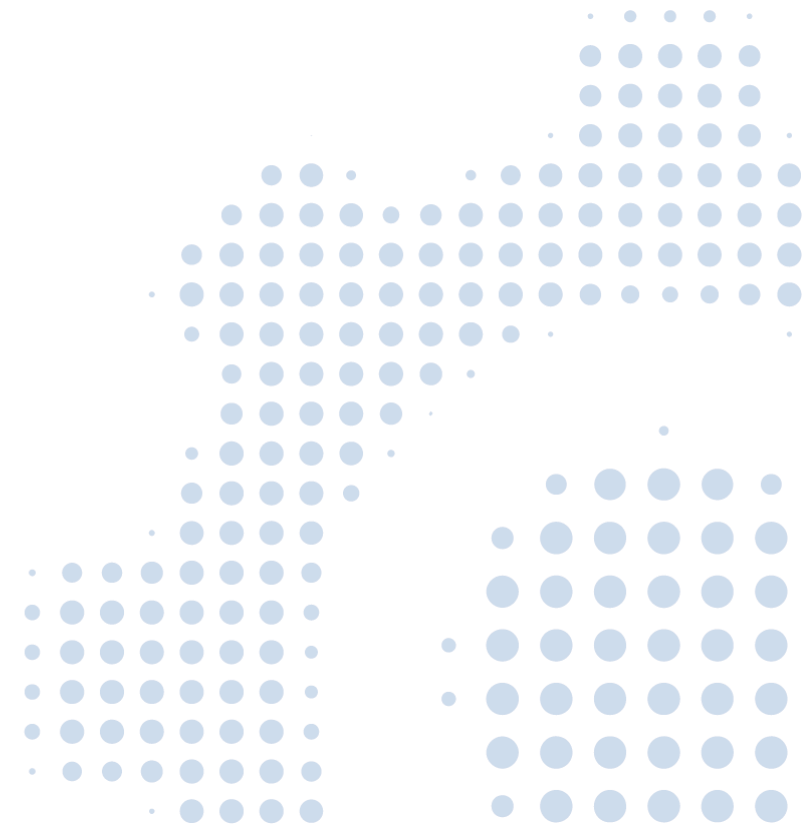


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CEO

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History of Artificial Intelligence



| Era | Focus |
|----------|--|
| 1950s | مجرد نظريات علميه مبنيه علي أسس رياضيه – اختبار تيورنج |
| 1956 | مؤتمر دارتماوث - ميلاد الذكاء الاصطناعي رسمياً |
| 1960–70s | Expert systems + early chatbots |
| 1980s | Neural networks return |
| 1990s | Statistical ML + landmark achievements |
| 2000s | Big data + commercial ML |
| 2010s | Deep learning revolution |
| 2020s | Generative AI + multimodal AI |

Artificial Intelligence



- Oil and Gas Mining
- Refineries Predictive Maintenance
- Time-series Goods pricing prediction
- Churn Prediction
- Credit Scoring
- Payment Prediction



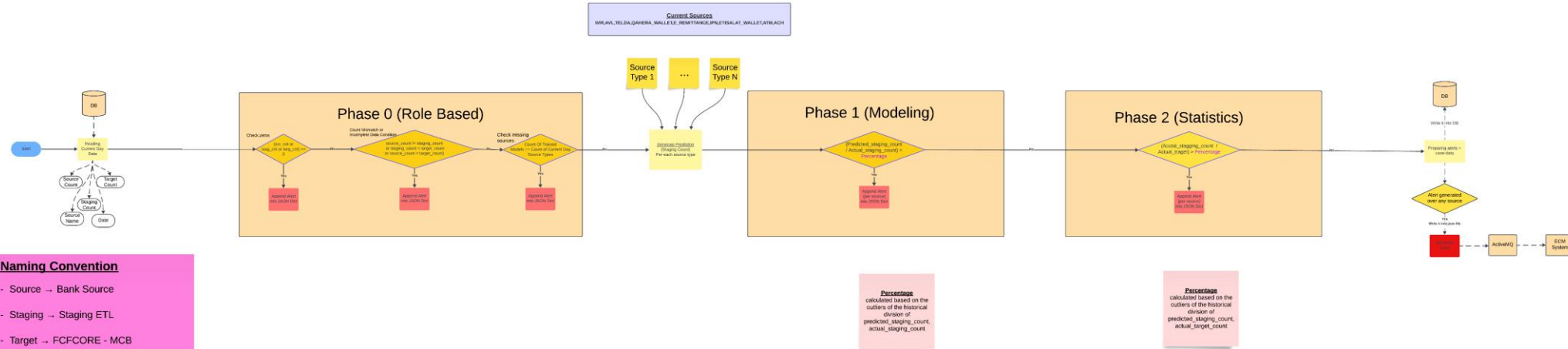
Current AI use cases in Banking



- Data Management (ETL) Prediction
- Customer Segmentation
- AI Decision Support
- AML Intelligence
- Intelligent Document Processing
- Trade-Base Money Laundering
- Behavior Analysis
- Account Statement Analysis
- Fraud Detection



Data Management (ETL) Prediction



- **Naming Convention**
- Source → Bank Source
- Staging → Staging ETL
- Target → FCFCORE - MCB

Percentage calculated based on the outliers of the historical division of predicted_staging_count, actual_staging_count

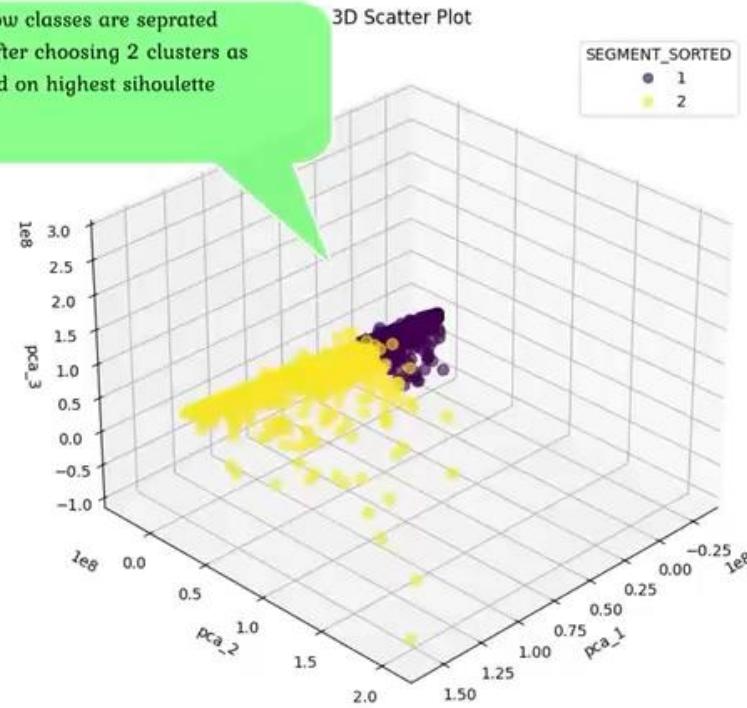
Percentage calculated based on the outliers of the historical division of predicted_staging_count, actual_target_count

| ETL RESULT DETAILS | | | | | | | | | |
|--------------------|-----------------|-------------------------|-----------------------------|----------------------------------|------------------|------------------------------|--------------------------|----------------------------------|---|
| ETL_RUN_DATE | ETL_SOURCE_NAME | ETL_ACTUAL_SOURCE_COUNT | ETL_PREDICTION_SOURCE_COUNT | ETL_PREDICTION_PER_ACTUAL_SOURCE | ETL_TARGET_COUNT | ETL_ACTUAL_SOURCE_PER_TARGET | ETL_RESULT_DETAILS_STAGE | ETL_RESULT_DETAILS_GENERATED_IND | ETL_RESULT_DETAILS_DESC |
| 20240515 | ATM | 755515 | 624954 | 0.83 | 5625 | 134.31 | n | | |
| 20240515 | ACH | 95222 | 78056 | 0.82 | 64760 | 1.47 | n | | |
| 20240515 | AVL | 1384 | 1395 | 1.01 | 1335 | 1.04 | n | | |
| 20240515 | E_REMITTANCE | 7231 | 7360 | 1.02 | 7144 | 1.01 | n | | |
| 20240515 | ETISALAT_WALLET | 3719820 | 3592813 | 0.97 | 1533648 | 2.43 | n | | |
| 20240515 | IPN | 40103 | 38685 | 0.96 | 37540 | 1.07 | n | | |
| 20240515 | ETISALAT_WALLET | 56930 | 54006 | 0.95 | 20433 | 2.79 | n | | |
| 20240515 | IMR | 60 | 66 | 1.1 | 58 | 1.03 | n | | |
| 20240515 | TELDA | 66014 | 66420 | 1.01 | 46559 | 1.42 | 2 | v | - The value of actual source / target greater than 1.2495 value |

Customer Segmentation



This plot shows how classes are separated from each other after choosing 2 clusters as inner groups based on highest silhouette score



scatter3d - Scatter3DPlot

AI Decision Support – AML Analysis



AML Alert Adjudication & SAR Narrative

Section 1: Final Adjudication (Brief Opinion)

Section 2: Structured Investigative Narrative

Who

Subject: Mohamedit Alimar Singh.

Profile: The subject is a 23-year-old bank employee (Staff Category 110, Employee Indicator "Y") associated with Cairo Branch 507.

KYC Anomalies: The subject's profile lists a "Yearly Income" of 6,000,000, which appears to be a data integrity error or intentional inflation to bypass standard monitoring thresholds, given the subject's age and staff position.

What & When

Date of Activity: June 30, 2023.

Amount: 298,500.00 (Single transaction).

Timing: The transaction occurred only 9 days after the account was opened (Customer Since: 2023-06-21).

Where

Branch: Cairo Branch 507.

Source of Funds: Internal Bank Ledger ("Suspense to Customer").

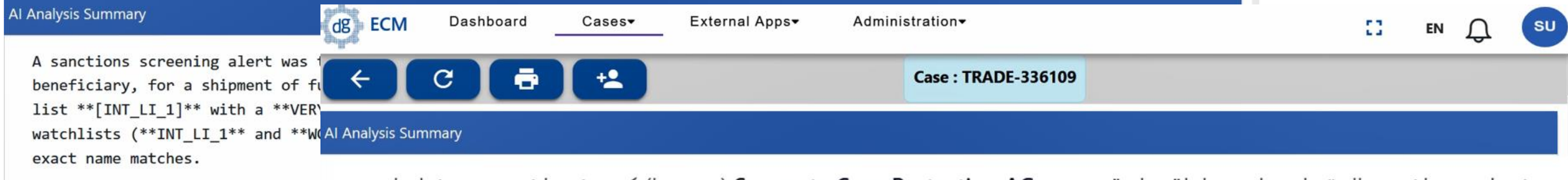
Destination: Personal Staff Account (Account Ending in 1687).

How

The subject received a large credit via an internal transfer mechanism identified as "Suspense to Customer" with

| Disposition | Threshold Met? | Action |
|-----------------|----------------|---|
| SAR Recommended | Yes (RGS Met) | File Suspicious Activity Report (SAR/STR) |

AI Decision Support – Sanction Analysis



Port screening produced hits on the following entities in the **World-Check E** database. The most likely **false positives**.

No PEP status or active sanctions securities/commodity regulations. of the shipment, the overall alert control restrictions apply.

تم تشغيل تنبيه لفحص العقوبات على معاملة تجارية تتضمن Syngenta Crop Protection AG (سويسرا) كمستفيد، لشحن مبيد فطريات من هامبورغ إلى الإسكندرية. تطابق المستفيد مع ثلاث كيانات من القائمة الداخلية [INT_LI_1] بمستوى تطابق أقصى VERY HIGH، كما تطابق الاسم أيضًا مع ثلاث إدخالات عبر قوائم المراقبة العالمية (INT_LI_1 و WCHK_BICS) ضمن برامج USFTC~USSAG و BAFIN~USCME بثقة VERY HIGH بسبب التطابق الدقيق للأسماء.

أنتج فحص الموانئ نتائج على كلا legs: ميناء التفريغ (الإسكندرية) وميناء التحميل (هامبورغ)، حيث تطابق كل منهما مع كيانيين في World-Check BICs؛ وبما أن هذه تبدو معرفات بنكية غير مرتبطة بالموانئ نفسها، فمن المرجح أن تكون هذه التطابقات إيجابيات خاطئة.

لم يتم تحديد أي حالة PEP أو عقوبات نشطة؛ يظهر الكيان فقط على قوائم الرقابة التنظيمية المتعلقة بلوائح الأوراق المالية/السلع الأمريكية والألمانية. نظرًا لوضع Syngenta كشركة متعددة الجنسيات شرعية في مجال الكيماويات الزراعية والطبعية الروتينية للشحن، فإن التنبيه العام على الأرجح إيجابي خاطئ، رغم أنه يُوصى بمراجعة يدوية سريعة للتأكد من عدم وجود قيود تصدير.

AML Intelligence



🏠 / AI Analysis Report

Showing 1 to 100 of 1160 👁 Default View ⋮ 🔍

0 selected ➡ Forward 🔒 Close 📄 Export as CSV

| <input type="checkbox"/> | No | Party Number 🔽 🔼 | Party Name 🔽 🔼 | RISK_CLASSIFICATION 🔽 🔼 | Party Type Desc 🔽 🔼 | Occupation Desc 🔽 🔼 | Suspect Queue 🔽 🔼 | PREDICTION 🔽 🔼 |
|--------------------------|----|-------------------------------|---|--------------------------------------|----------------------------------|-----------------------------------|--------------------------------|-----------------------------|
| <input type="checkbox"/> | 1 | 100032 | FAKRUDDIN MIYA KAWARI JAHIR | 1 | INDIVIDUAL | Kitchen worker | JEDDAH | 53 |
| <input type="checkbox"/> | 2 | 100041 | Abdul Karim Abdo Ali Omar | 1 | INDIVIDUAL | VISITOR | JEDDAH | 64 |
| <input type="checkbox"/> | 3 | 100299 | EMAD AHMED ABDULJALIL MAHYOUB | 1 | INDIVIDUAL | SELLER | JEDDAH | 66 |
| <input type="checkbox"/> | 4 | 102507 | BINDESHWAR MANDAL | 1 | INDIVIDUAL | Farmer, vine | None | 67 |
| <input type="checkbox"/> | 5 | 103218 | Ali Ali Nasser Al Abali | 3 | INDIVIDUAL | Purchasing representative | JEDDAH | 90 |
| <input type="checkbox"/> | 6 | 103374 | Mari Salamah Saeed bin Muharram | 3 | INDIVIDUAL | Specialist, marketing | None | 99 |
| <input type="checkbox"/> | 7 | 103504 | Mohamed Mohsen Ahmed Aldiri | 3 | INDIVIDUAL | Seller, fabrics (cloth material) | JEDDAH | 99 |
| <input type="checkbox"/> | 8 | 104369 | Saddam Abdul Karim Abdul Qaid Al Sharmani | 3 | INDIVIDUAL | Buildings electrician | None | 92 |
| <input type="checkbox"/> | 9 | 105428 | Yousef Fakhry Awni Al Hurtani | 3 | INDIVIDUAL | DRIVER | JEDDAH | 97 |
| <input type="checkbox"/> | 10 | 105591 | MOOYAD YOUSEF SHABAAN ALI | 1 | INDIVIDUAL | ACCOUNTANT | JEDDAH | 63 |
| <input type="checkbox"/> | 11 | 106335 | Ahmed Mohamed Marsh Mohamed | 3 | INDIVIDUAL | Computer programmer | None | 98 |
| <input type="checkbox"/> | 12 | 10645 | ???? ???? ????? ?????? | 3 | INDIVIDUAL | Beekeepers | JEDDAH | 91 |
| <input type="checkbox"/> | 13 | 10765 | SAMIR ABDEL HAMID TAHA DUNYA | 3 | INDIVIDUAL | | JEDDAH | 98 |
| <input type="checkbox"/> | 14 | 108588 | RENNA THOMAS | 3 | INDIVIDUAL | Nurse, general | JEDDAH | 95 |
| <input type="checkbox"/> | 15 | 108982 | ALI MUSTAFA ABDULRAHMAN BIN SUMAYT | 1 | INDIVIDUAL | Specialist, marketing | JEDDAH | 65 |
| <input type="checkbox"/> | 16 | 110750 | Abu Bakr Ahmed Ali Vazaa | 1 | INDIVIDUAL | Seller, gifts art items | JEDDAH | 63 |
| <input type="checkbox"/> | 17 | 111742 | Mohammed Saleh Mohammed Al Maghrabi | 1 | INDIVIDUAL | Purchasing representative | JEDDAH | 63 |

Intelligent Document Processing



Case / IDC-CRE-2025-371735 Unlocked (Edit Mode)

| | |
|-------------------------|--|
| Bill of Lading No. | 111NVE |
| Shipping Company | CMA CGM |
| Shipper | SYNGENTA CROP PROTECTION AG SCHWARZWALDALLEE 215 CH-4058 BASEL SWITZERLAND |
| Consignee | ARAB GERMAN CHEMICALS CO AS AGENT OF SYNGENTA AGRO S.A.E 7. EL-EDRESY ST. HELIOPOLIS EG-CAIRO EGYPT TAX NUMBER: |
| Notify Party | DAMCO EGYPT CITYSTARS STAR CAPITAL A2 13TH FLR OMAR EBN EL KATTAB STREET 0000 CAIRO EGYPT TEL: 20-24801061 |
| Ocean Vessel/Voyage No. | RIO MADEIRA |
| Port of Loading | HAMBURG |
| Port of Discharge | ALEXANDRIA |

| |
|----------------|
| VOYAGE NUMBER |
| 111NVE |
| WAYBILL NUMBER |
| BSE0173138A |

| | | | |
|---|----------------------------|---|-----------------------------|
| DAMCO EGYPT CITYSTARS STAR CAPITAL A2 13TH FLR OMAR EBN EL KATTAB STREET 0000 CAIRO EGYPT 20-24801061 | | CARRIER: CMA CGM Société Anonyme au Capital de 234 988 330 Euros Head Office: 4, quai d'Arenc - 13002 Marseille - France Tel: (33) 4 88 91 90 00 - Fax: (33) 4 88 91 90 95 562 024 422 R.C.S. Marseille | |
| PRE CARRIAGE BY* | PLACE OF RECEIPT* | FREIGHT TO BE PAID AT | NUMBER OF ORIGINAL WAYBILLS |
| | | HAMBURG | ZERO (0) |
| VESSEL | PORT OF LOADING | PORT OF DISCHARGE | FINAL PLACE OF DELIVERY* |
| RIO MADEIRA | HAMBURG | ALEXANDRIA | |
| MARKS AND NOS CONTAINER AND SEALS | NO AND KIND OF PACKAGES | DESCRIPTION OF PACKAGES AND GOODS AS STATED BY SHIPPER SHIPPER'S LOAD, STOW AND COUNT, SAID TO CONTAIN | GROSS WEIGHT CARGO |
| | | | TARE MEASUREMENT |

Trade-Base Money Laundering



- Intelligent Document Processing
- Sanctions Screening
- AML “Transaction Monitoring”
- Vessel Tracking



Account Statement Analysis



كشف حساب / Statement of Account

| Date | التاريخ | Branch | الفرع |
|-------------|---------|---------|-------|
| 30-JUN-2025 | | العروبة | |

داتا جبر ش ذ م م
22ش سليمان عزمي
الذخيرة
القاهرة
القاهرة
فرع : العروبة

Account Statement Details : داتا جبر

BANK NAME: Banque du Caire
ACCOUNT NUMBER: 0151501007782
CUSTOMER NUMBER: 6785252
CUSTOMER ADDRESS: 22 ش سليمان عزمي الذخيرة القاهرة
ACCOUNT CURRENCY: EGP
STATEMENT PERIOD END: 01/07/2025
CLOSING BALANCE: 27771.55
TOTAL WITHDRAWALS: 830538.95

ACCOUNT NAME: داتا جبر
ACCOUNT TYPE: حساب جبري عملاء
CUSTOMER NAME: داتا جبر ش ذ م م
BANK BRANCH: العروبة
STATEMENT PERIOD START: 23/03/2025
OPENING BALANCE: 570576.60
TOTAL DEPOSITS: 287733.90
STATEMENT PRINT DATE: 30/07/2025

Transaction Data 18

Showing 18 transactions | Total Amount: 1,688,849.45 Double click on any row to edit





| No | Transaction Date | Description | Debit/Credit Amount | Operation Type | Beneficiary Party |
|----|------------------|---------------------------------|---------------------|----------------|-------------------|
| 1 | 28-MAR-2025 | الرصيد السابق | 570,576.60 | credit | داتا جبر |
| 2 | 03-APR-2025 | خصم شيك مقاصة | 200,000.00 | debit | CHEQUE |
| 3 | 06-APR-2025 | سداد فاكورة وصولات | 782.05 | debit | Banque du Caire |
| 4 | 07-APR-2025 | خصم شيك مقاصة | 350,000.00 | debit | CHEQUE |
| 5 | 09-APR-2025 | عمولة تحويل شيك القروض | 50.00 | debit | Banque du Caire |
| 6 | 09-APR-2025 | 151.501.77782 إلى 151.409.44721 | 17,000.00 | debit | 151.409.44721 |
| 7 | 10-APR-2025 | DU CAIRE ACCOUNTS PAYABLE | 1,409.40 | credit | Banque du Caire |

| Value Date | Posting Date |
|-------------|--------------|
| 28-MAR-2025 | 28-MAR-2025 |
| 03-APR-2025 | 03-APR-2025 |
| 06-APR-2025 | 06-APR-2025 |
| 07-APR-2025 | 07-APR-2025 |
| 09-APR-2025 | 09-APR-2025 |
| 09-APR-2025 | 09-APR-2025 |
| 10-APR-2025 | 10-APR-2025 |
| 10-APR-2025 | 10-APR-2025 |
| 16-APR-2025 | 16-APR-2025 |
| 16-APR-2025 | 16-APR-2025 |
| 30-APR-2025 | 30-APR-2025 |
| 30-APR-2025 | 30-APR-2025 |
| 30-APR-2025 | 30-APR-2025 |
| 30-APR-2025 | 30-APR-2025 |
| 30-APR-2025 | 30-APR-2025 |
| 25-JUN-2025 | 25-JUN-2025 |
| 29-JUN-2025 | 29-JUN-2025 |
| 29-JUN-2025 | 29-JUN-2025 |
| 30-JUN-2025 | 30-JUN-2025 |
| 01-JUL-2025 | 01-JUL-2025 |

Account Statement Analysis



Account Statement Details

| No | File Name   | Summary   |
|----|---|---|
| 1 | DG-BDC-EGY.pdf | Executive Summary This document is a bank statement for the business account of "داتا جير ش ذ م م" (Data Jer Co.), held at Banque du Caire under the المروية branch. The statement covers the period from 23 March 2025 to 1 July 2025, with the print date being 30 July 2025. The account began with a high opening balance of EGP 570,576.60, but experienced significant outflows, resulting in a closing balance of EGP 27,771.55—a net reduction of over EGP 540,000. The primary drivers of the account's decline include multiple large cheque withdrawals, service fees, and commissions charged by the bank and third-party entities (notably LG-related fees). Notably, the account also shows transfers to other accounts, including a transfer to "هيثم محمد علي" and a withdrawal from another account (151.409.44721). Despite total deposits of EGP 287,733.90, withdrawals and fees far exceeded deposits, leading to a substantial deficit. |
| 2 | DG-CIB-EGY.pdf | Executive Summary This document is a bank statement for the account DATA GEAR (Account Number: 100021821432 [89-9818006-4]) held at Commercial International Bank (CIB), Branch 020, in Egypt. The statement covers the period from 30 March 2025 to 30 July 2025, with the statement printed on 30 July 2025. The account is in EGP (Egyptian Pound) and has a closing balance of EGP 2,071,624.38, up from an opening balance of EGP 2,071,624.38. The account shows a net increase of EGP 2,071,624.38, primarily driven by deposits and transfers. The account also shows a net increase of EGP 2,071,624.38, primarily driven by deposits and transfers. The account also shows a net increase of EGP 2,071,624.38, primarily driven by deposits and transfers. |



DataGear - Account Statement

add fees. A substantial



Account Statement Details

Account Statement Network Tracer Analysis

Filters

Account Number

5 options

Currency

3 options

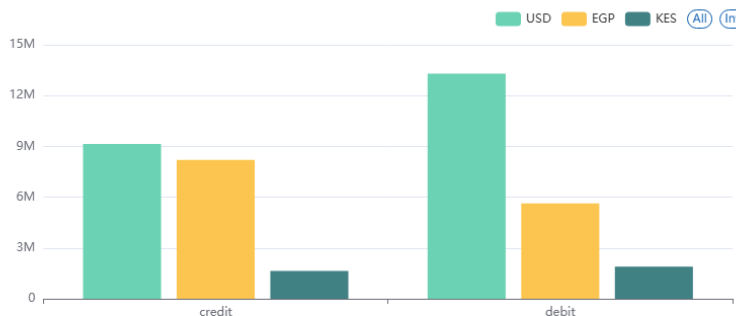
transaction_date

No filter

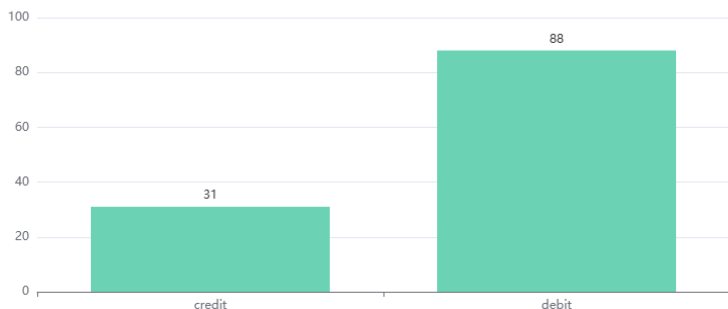
Apply filters

Clear all

Credit/Debit Totals Per Currency (EGP)



Frequency per Transaction Type



Account Analysis Detail



داتا جير ش ذ م م
22ش سليمان
الزفة
القاهرة
القاهرة
فرع : العرو

تاريخ القيد

isting Date

MAR-2025

APR-2025

APR-2025

APR-2025

APR-2025

APR-2025

APR-2025

APR-2025

10-APR-2025

16-APR-2025

16-APR-2025

10-APR-2025

30-APR-2025

10-APR-2025

30-APR-2025

10-APR-2025

30-APR-2025

15-JUN-2025

25-JUN-2025

19-JUN-2025

29-JUN-2025

19-JUN-2025

29-JUN-2025

10-JUN-2025

30-JUN-2025

11-JUL-2025

01-JUL-2025

How to Implement



- Cloud Environment
- Local Environment

