API PRODUCT GUIDE

Table of Contents

INTRODUCTION/OVERVIEW

E-Doc enables the automated retrieval of bank statements directly from Banks. Our solution helps organisations analyse a customer's financial behaviour using their bank statement data and a proprietary machine learning model.

The product delivers structured transaction information and key financial insights to support bank statement analysis and decision-making.

BANK STATEMENT DATA PLANS

Category	Data Field / Metric	Silver Plan	Gold Plan	Platinum Plan
Banking Data	Amount	X	X	X
	Narration	X	X	X
	Debit/Credit Indicator	X	X	X
	Date of Transaction	X	X	X
	Currency	X	X	X
	accountId		X	X
	TransactionId		X	X
	CreditDebitIndicator		X	X
	Status		X	X
	BookingDateTime		X	X
	TransactionInformation		X	X
	TransactionAmount		X	X
	AmountCurrency		X	X
	Code		X	X
	BalanceType		X	X
	BalanceAmount		X	X
	BalanceCurrency		X	X
	TransactionMonthYear		X	X
	customerName		X	X
	bankName		X	X
	TransactionReference			X
	TransactionMutability			X
	BalanceCreditDebitIndicator			X
	Income			X
	Expense			X
	tran_type			X
	category_lvl1			X
	category_lvl2			X
ML Data	Total Inflow (Credit)	X	X	X
	Total Outflow (Debit)	X	X	X
	Total Inflow Count		X	X
	Total Outflow Count		X	X
	Transaction Count: • Deposit • Withdrawal • POS • Transfer		X	X
	Average Amount:		X	X

	• Deposit • Withdrawal • POS • Transfer			
	Actual Balance		X	X
	Average Balance			X
	• Opening Balance • Closing Balance			X
	Average Daily Balance			X
	Standard Deviation of Running Balance			X
	Debit to Credit Ratio			X
	Transaction Tiering Count • 0-100, • 100k – 500k, • 500k -1m • 1m+			X
	Risky Transaction Categorization: • Low Risk, • Medium Risk • High Ris			X
	Risky Transaction details			X
	Exclude: • Bank Charges • Reversals • Cheques			X
	• Revised Inflow /Outflow minus (Bank Charges, Reversals, Cheques)			X
	Average Transaction Amount, Transaction amount and period)			X

TERMS OF REFERENCE

Field Name	Definition / Description
accountId	Unique identifier assigned to the user's bank account.

TransactionId	Unique ID for each bank transaction.
TransactionReference	Reference code tied to the transaction, often used for reconciliation.
CreditDebitIndicator	Indicates if the transaction is a Credit (inflow) or Debit (Outflow).
Status	Status of the transaction (e.g., posted, pending, reversed).
TransactionMutability	Indicates whether a transaction can be updated or reversed.
BookingDateTime	The date and time the transaction was posted to the account.
TransactionInformation	Description or label for the transaction, often derived from bank narration.
TransactionAmount	Monetary value of the transaction.
AmountCurrency	Currency in which the transaction occurred (NGN).
Code	A classification code used for categorizing the transaction type.
BalanceCreditDebitIndicator	Shows whether the balance value is a credit or debit.
BalanceType	Specifies the type of balance (e.g., ledger, available).
BalanceAmount	Actual balance value associated with the account at a given time.
BalanceCurrency	Currency of the reported balance (e.g., NGN).
Income	Value identified as income based on transaction categorization.
Expense	Value identified as expense based on transaction categorization.
TransactionMonthYear	Month and year the transaction occurred (e.g., Mar-2024).
customerName	Full name of the customer registered with the bank account.
bankName	The name of the bank associated with the transaction or account.
tran_type	General type of transaction (e.g., inflow, outflow).
category_lvl1	Broad transaction classification, such as **Inflow**, **Income**, **Expense**, or **Outflow**—representing the general type of financial activity.
category_lvl2	More specific subcategories under each Level 1 type, such as **Salary**, **Internal Transfer**, **Bank Charges**, **POS**, **Withdrawal**, or **Deposit**—providing detailed context for each transaction.

SAMPLE BANKING DATA

Bank	Banking Data

Wema Bank	START
	response":{
	"status":true
	"data":[
	0:{
	"AccountId":"Interest run"
	"Amount":{
	"Amount":0.05
	"Currency":""
	}
	"Balance":{

"Amount":{
"Amount":0
"Currency":"0"
}
"CreditDebitIndicator":"Credit"
"Type":"InterimAvailable"
}
"BookingDateTime":"2024-02-18T00:00:00"
"CreditDebitIndicator":"Debit"
"Expense":true
"Income":false
"ProprietaryBankTransactionCode":{
"Code":"Interest run"
}
"Status":"Default"
"TransactionId":"S73511815"
"TransactionInformation":"0282392594:WTax.Pd:01-01-2024to 31-01-2024"
"TransactionMonthYear":"Feb-2024"
"TransactionReference":"Interest run"
"TransactionMutability":""
}
]
"balance":96.85
"accountName":"BENEDICT PRAISE GODWIN"
"accountType":"SBA"

FCMB	START
	
	response":{
	"data":{
	"customerDetails":{
	"customerID":"010766395"
	"acid":"0113926018"
	"foracid":"2002052442"
	"customerName":"E-DOC ONLINE NIGERIA LIMITED"
	"address":"13, OLANREWAJU STREET, IKEJA, LAGOS,,"
	"clearedAmount":1798.19
	"unclearedAmount":0
	"systemReservedAmount":0
	"lienAmount":0
	"sanctionLimit":0
	"emailID":"TUNDE.OGUNDIPE@E-DOCONLINE.CO.UK"
	"currency":"NGN"
	"openingBalance":1798.19
	"effectiveBalance":0
	"accountType":"CORPORATE CURRENT ACCOUNT"
	"schemeCode":"OD206"
	"availableBalance":1798.19
	"drawingPower":0
	"mobileNo":"09095990111"
	"branchCode":"132"
	"totalCredit":10000
	"totalDebit":8201.81
	"tranTime":"10/27/2023 14:09:11"
	statementDetails":[
	0:{
	"tranID":" 01342043"
	"accountName":"NEW ACCOUNT/NON- ACCOUNT HOLDER'S A/C"
	"customerCode":NULL
	"tranDate":"2023-09-25T00:00:00"
	"partTranType":"C"
	"tranAmount":10000"tranParticular":"CDP BY E-DOC ONLINE LIMITED"
	"valueDate":"2023-09-25T00:00:00"
	"reference":NULL
	"tranShortCodeDesc":"TRANSFER"
	"runningBalance":11798.19
	"withdrawls":0
	"deposit":10000

		"tranDateString":"09/25/2023 " "valueDateString":"09/25/2023 " "hasTransaction":"Y" "statementRequester":"" "statementPeriod":"06-May-2023 To 06-Feb-2024" "maskedAccountNumber":"******2442" "tranSerialNo":" 2" "tranShortCode":"TRF" "tranType":"T" "tranSubType":"BI" "tranTime":"25/09/2023 20:23:59" }] } } "requestId":"r1707222146518" "code":"00" "description":"Success"

FIRST BANK	START
	
	"response":{
	"responseCode":"00"
	"responseMessage":"Successful"
	"requestId":"E-Doc20231106030817"
	"statementPeriod":"06-Aug-2023 To 06-Nov-2023"
	"startDate":"2023-08-06T00:00:00"
	"endDate":"2023-11-06T00:00:00"
	"transactions":[
	0:{
	"serialNo":1
	"tranId":"S94797607"
	"partTranType":"D"
	"tranAmount":"6.98"
	"tranParticular":"FDT:RUSSD_SESS_CHG:SchdulePayment2348068254493/8/3 Ref000017349555"
	"tranParticular2":"FPX:17349555/FDT:RUSSD_SESS_CHG:SchdulePay/0000000"
	"instrumentNumber":NULL
	"tranCurrencyCode":"NGN"
	"referenceCurrencyCode":"NGN"
	"tranType":"T"
	"tranSubType":"BI"
	"tranRemarks":"000017349555"
	"deposit":"0.0"
	"withdrawal":"6.98"
	"runningBalance":"1812.84"
	"totalCredit":"0.0"
	"totalDebit":"6.98"
	"tranDate":"30-Aug-2023"
	"valueDate":"30-Aug-2023"
	"postedDate":"2023-08-30T16:27:30Z"
	"marker":"20230830162759250"
	"tranShortCode":"TRF"
	"entryDate":NULL
	"referenceNumber":NULL
	"customerId":"106041738"
	"accountNumber":"2009736647"
	"accountName":"SHAFE OLAWUMI OMOYEMI"
	"address":"BLK. 5 FLAT 6, ABESAN ESTATE IPAJA LAGOS,,"
	"openingBalance":"1819.82"
	"closingBalance":"1777.94"
	"availableBalance":"3908098.38"
	"clearedBalance":"3908098.38"
	"unclearedBalance":"0.0"
	"lienAmount":"0.0"
	"totalCredit":"0.0"
	"totalDebit":"41.88"
	"email":"eloho.a.mukoro@firstbanknigeria.com"
	"currency":"NGN"

	"productCode":"CA201" "productName":"CURRENT A/C - PERSONAL" "mobileNo":"2348068254493" "branchCode":"106" "city":"LAGOS" "state":"LAGOS" "country":"NIGERIA" "acid":"41.88" }

DATA ANALYTICS

Data	Description

• **Inflow/Outflow:**
• → **Total Inflow (Credit): ₦202,220.12**
• → **Total Outflow (Debit): ₦1,198,054.09**
	The total amount of money credited to the account during the statement period.
	
	It includes:
	  • Salary payments
	  • Incoming transfers
	  • Deposits (cash or cheque)
	  • Refunds
	  • Loan disbursements, etc.
	
	The total amount of money debited to the account during the statement period.
	
	It includes:
	  • Cash withdrawals
	  • Bill payments
	  • Transfers to other accounts
	  • Card purchases
	  • Loan repayments, etc.

	• Total Inflow refers to the number of credit transactions into the account.

• **Transaction Behavior:** • → **Total Inflow Count: 6** • → **Total Outflow Count: 29**	• Total Outflow refers to the number of debit transactions into the account.
• **Transaction Counts:** • → **Deposits: 0** • → **Withdrawals: 0** • → **POS: 0** • → **Transfers: 15** • → **Pos Withdrawals: 0**	This is the total number of transactions broken down by deposits, withdrawals, POS transactions, transfers and POS withdrawals.
• **Average Transaction Amounts:** • → **Deposits: ₦0.00** • → **Withdrawals: ₦0.00** • → **POS: ₦0.00** • → **Transfers: ₦43,868.60** • → **Pos Withdrawals: 0.0**	This is the average transaction amount of transactions broken down by deposits, withdrawals, POS transactions, transfers and POS withdrawals.
• **Balance:** • → **Actual Balance: ₦0.00**	Actual Balance refers to the real amount of money available in a bank account at the end of a specific period.
• **Transaction Count: Debit vs Credit: 5.9245**	The total number of transactions broken down by credits (deposits) and debits (withdrawals).
• **Average Balance:** • → **Opening-Closing Difference: ₦0.00** • → **Average Daily Balance: ₦0.00** • → **Standard Deviation: 0.00**	The mean balance in an account over a specified period
• **Transaction Count Tiering:** • → **Below 100K: 35** • → **100K-500K: 0** • → **500K-1M: 0** • → **Above 1M: 0**	Transaction Count Tiering refers to the classification of account activity based on the number of transactions (credits and debits) within a specific time period.
• **Risky Transactions:** • → **Low Risk: 15** • → **Medium Risk: 20** • → **High Risk: 0**	Transaction based on patterns or criteria: High-Risk Transactions: • Large amounts inconsistent with account history

	• Multiple high-value international transfers • Transactions with flagged or high-risk countries • Unusual time patterns (e.g., midnight or weekend spikes) • Rapid inflow and immediate outflow (layering) • Use of multiple accounts to split one large transaction (structuring) • Sudden bulk cash deposits followed by withdrawals • Payments to blacklisted merchants or unregulated crypto platforms Medium-Risk Transactions: • Moderate but irregular large transfers • Frequent use of third-party payments (e.g., from unknown individuals) • Transfers just under known regulatory reporting limits • Sudden change in transaction behavior or volume • New business account sending frequent payments abroad Low-Risk Transactions: • Regular, predictable income and expense patterns • Local payments to known merchants or service providers • Small-value personal transfers • Salary payments or utility bills
• **Excluded Transactions:** • → Bank Charges: 7 • → Reversals: 0 • → Cheques: 0 • → Same Sender-Recipient: 0 • → Revised Total Inflow: ₦202,220.12 • → Revised Total Outflow: ₦1,197,751.00	Transactions excluded from financial analysis because they don't reflect the customer's true income, spending, or creditworthiness
• **Transaction Spikes:** • → Average Transaction Amount: ₦40,007.83	Transaction Spikes refer to sudden and significant increases in the number or value of transactions within a short time frame, often deviating from a customer's typical financial behaviour.
• → Same Sender-Recipient: 0	Same Sender, Same Recipient transactions refer to situations where the same sender (account holder) is consistently sending funds to the same recipient (another account or individual)

Monthly Credit Turnover: → 2025-04: ₦250000.00 → 2025-03: ₦40000.00 → 2024-11: ₦250000.00 → 2024-10: ₦100347.12 **6-Month Cumulative Credit: ₦640347.12** **Annual Credit Turnover: ₦960520.68** **Monthly Debit Turnover:**	Monthly Credit Turnover refers to the total amount of money deposited or credited into a bank account within a given timeline. It includes all incoming funds such as: • Salary payments • Customer payments or sales revenue • Internal transfers (from another account) • Loan disbursements • Refunds or reimbursements 6 Monthly Cumulative Credit refers to the total sum of all credit (incoming) transactions accumulated in a bank account over a 6 -month period. Annual Credit Turnover refers to the total value of all credit (incoming) transactions recorded in a bank account over a 12-month period.
Monthly Debit Turnover: → 2025-05: ₦20.00 → 2025-04: ₦272639.75 → 2025-03: ₦55050.00 → 2025-02: ₦5526.88 → 2025-01: ₦41.50 → 2024-12: ₦250001.50 **6-Month Cumulative Debit: ₦583279.63** **Annual Debit Turnover: ₦1250226.14**	Monthly Debit Turnover refers to the total value of all debit (outgoing) transactions from a bank account within a given month. It includes: • Withdrawals (cash or ATM) • Bill payments (utilities, rent, services) • Bank charges and fees • Loan repayments • POS and online purchases • Outgoing transfers to other accounts 6 Monthly Cumulative Debit refers to the total sum of all debit (outgoing) transactions accumulated in a bank account over a 6 -month period. Annual Debit Turnover refers to the total value of all debit (outgoing) transactions recorded in a bank account over a 12-month period.
	Inflow Frequency refers to how often money is credited into a bank account over a specific period. Outflow Frequency refers to the number of debit (outgoing) transactions from a bank account over a specific period.

Inflow Frequency (Transactions per Month): → 2025-05: 0 → 2025-04: 1 → 2025-03: 1 → 2025-02: 0 → 2025-01: 0 → 2024-12: 0 **Outflow Frequency (Transactions per Month):** → 2025-05: 1 → 2025-04: 10 → 2025-03: 3 → 2025-02: 4 → 2025-01: 3 → 2024-12: 2	
Average Monthly Turnover: ₦80043.39	Average Monthly Frequency refers to the average number of specific transactions (inflows or outflows) occurring per month over a defined period.
Transaction Categorization: → **Business Transactions: 0** → **Personal Transactions: 12** → **POS/Agent Transactions: 0** → **Frequent Entities: 1 identified**	Predefined categories based on their type, source, or purpose.
→ **Layered Transfers: 0**	Layered Transfers refer to financial transactions where funds are moved through multiple accounts or institutions.
Financial Red Flags: → Zero Inflow Months: 4 months with no income → Personal Transaction Dominance: 35.3% of transactions → POS Dependency: 0.0% of inflows	Financial Red Flag refers to any warning sign or indicator in financial data or transactions that suggests potential risk, irregularity, or suspicious activity.
Transaction Spikes: → Average Transaction Amount: ₦43,347.98 → Spike 1: ₦250,000.00 on 2024-10-22 (5.77x avg) → Spike 2: ₦250,000.00 on 2024-11-05 (5.77x avg) → Spike 3: ₦250,000.00 on 2024-12-12 (5.77x avg) → Spike 4: ₦250,000.00 on 2025-04-17 (5.77x avg) → Spike 5: ₦250,000.00 on 2025-04-19 (5.77x avg)	Transaction Spikes refer to sudden, significant increases in the volume or value of transactions within a short period on an account or business.

API DOCUMENTATION

E-Doc Online's API Documentation can be found via link below:

https://documenter.getpostman.com/view/21424784/2s9YJdUgXJ

There following APIs should be integrated:

- **Authentication**: The E-Doc API uses Bearer Token which needs to be passed as Authorization Header along with the client id.

- **Dashboard**: The Dashboard API allows you to fetch the categorization of the transaction data provided for the given context.

CONTACT INFO

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