Fintech Payment Optimization Dashboard - API Documentation

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1. Introduction

Documentation of the API integration for the Fintech Payment Optimization Dashboard (Jan 2023 - Dec 2023) to connect with payment processing systems. This 1-2 page excerpt, part of a 6-page document, was used by developers in Nov 2023 to ensure real-time transaction monitoring, supporting a 25% fraud detection improvement.

2. API Overview

- Endpoint: [Payment API URL]/transactions

- Purpose: Fetch and update transaction data for dashboard.

- Protocol: REST, HTTPS, JSON format.

- Authentication: API key, managed by client IT.

3. Key Endpoints

Endpoint 1: GET /transactions

- Description: Retrieve transaction details.

- Parameters: transaction_id (string), date_range (optional).

- Response: JSON with transaction_id, amount, status, merchant.

- Example: GET /transactions?transaction_id=ABC123

- Status Codes: 200 (success), 401 (unauthorized), 500 (server error).

Endpoint 2: POST /transactions/alerts

- Description: Flag suspicious transactions for alerts.

- Parameters: transaction_id (string), alert_type (string).

- Response: JSON with alert_id.

- Example: POST /transactions/alerts {“transaction_id”: “ABC123”, “alert_type”: “high_value”}

- Status Codes: 201 (created), 400 (bad request).

4. Security

- Encryption: TLS 1.3 for data in transit, verified in sprint 7.

- Access: Role-based, restricted to analysts/managers.

- Audit Logs: Track API calls, reviewed monthly.

5. Testing

- Tools: Postman for validation in sprints 5-7.

- Test Cases: 8 cases (e.g., valid/invalid transaction_id, rate limits).

- Results: 100% success rate in UAT (Dec 2023).

6. Troubleshooting

- Issue: 401 Unauthorized. Solution: Regenerate API key.

- Issue: Slow response. Solution: Check rate limits (1,000 calls/min).

- Support: Contact [client IT email].