

Currency Tracker Solution Architecture

Automated Currency Exchange Rate Monitoring & Alert System



1. External Data Source

ExchangeRate-API.com

Real-time Currency Exchange Rates

- Endpoint: /v6/[API_KEY]/latest/[CURRENCY]
- Currencies: USD, EUR, GBP → LKR
- Rate Limit: 1,500 requests/month (Free Tier)
- Protocol: HTTPS / REST API



4. Alert System

Email Notifications



Office 365 Outlook

- Trigger: Threshold Exceeded
- Recipients: Configured Emails
- Content: Rate, Threshold, Date
- Priority: Normal/High

Alert Conditions:

- USD > 330 LKR
- EUR > 370 LKR
- GBP > 420 LKR



5. Presentation Layer (Optional)

Power Apps (Canvas App)

- Latest Exchange Rates Display
- Threshold Configuration UI
- Historical Data Viewer
- Manual Refresh Option
- Mobile-Friendly Interface



Security & Compliance

Authentication

Azure AD / Microsoft 365

API Security

HTTPS, API Key Management

Data Protection

SharePoint Encryption at Rest