

## Professional Currency Tracker (2025 Edition)

A sophisticated Python-based terminal dashboard for real-time global currency monitoring. Built with a modular class structure, this tool leverages the **ExchangeRate-API** to provide accurate financial conversions for the world's most influential currencies.

### 🌟 Key Enhancements in this Version

- **Object-Oriented Design:** Encapsulated logic within the CurrencyTracker class for better state management.
- **Enhanced UI:** Uses high-quality box-drawing characters for a professional dashboard aesthetic.
- **Continuous Monitoring:** An interactive loop allows for multiple conversions without restarting the application.
- **Robust Error Handling:** Specific handling for network timeouts, API-specific errors (like invalid keys), and malformed user inputs.

### Getting Started

#### 1. Requirements

- **Python 3.8+**
- **Requests Library:**
- `pip install requests`

#### 2. API Configuration

1. Obtain a free API key from [ExchangeRate-API](#).
2. Open main.py and update the configuration block:
3. `API_KEY = "your_actual_key_here"`

#### 3. Execution

Run the script to launch the dashboard:

```
python main.py
```

### Feature Breakdown

#### The Live Market Board

The tracker monitors a curated list of "Global Powerhouse" currencies relevant to the 2025 market:

- **G7 Currencies:** USD, EUR, JPY, GBP, CAD, CHF, AUD
- **Regional Leaders:** INR (India), CNY (China), HKD (Hong Kong), SGD (Singapore)

#### Interactive Workflow

1. **System Benchmark:** On launch, it automatically displays a 10,000 INR conversion table to verify connectivity.
2. **Custom Base:** Change your base currency by typing its 3-letter ISO code.
3. **Dynamic Calculation:** Enter any numerical amount to see the instant value across the entire board.

4. **Graceful Exit:** Simply press Enter at the base currency prompt to close the session.

#### **Error Guardrails**

- **Validation:** Automatically checks if currency codes are exactly 3 letters and uppercase.
- **Fallbacks:** If a user enters an invalid amount (e.g., text instead of numbers), the system defaults to 1.00 to prevent crashing.
- **Connectivity:** Implements a 10-second timeout for API requests to ensure the terminal doesn't hang on poor connections.

#### **License**

This utility is intended for informational and educational purposes. Always cross-reference terminal data with official banking platforms before executing high-value financial transactions.