

PKR Currency Converter - Readme

📌 Overview

This **PKR Currency Converter** is a **Visual Basic (VB.NET) Windows Forms** application that converts **Pakistani Rupees (PKR)** to **all major world currencies** using real-time exchange rates from an API or locally stored rates.

🚀 Features

- ✓ **Convert PKR to 160+ Currencies** (USD, EUR, GBP, JPY, etc.)
 - ✓ **Real-time Exchange Rates** (via API) or **Offline Mode** (cached rates)
 - ✓ **Simple & Intuitive UI** with dropdown currency selection
 - ✓ **Auto-Fetch Latest Rates** on startup (configurable)
 - ✓ **Error Handling** for invalid inputs & API failures
-

📁 Project Structure

```
PKR_Currency_Converter/
├── 📁 Data/                                # Local rate storage
│   └── ExchangeRates.json                # Cached rates (if offline)
│
├── 📁 Models/                              # Data classes
│   └── CurrencyRate.vb                  # Currency code/rate model
│
├── 📁 Services/                            # Business logic
│   └── CurrencyService.vb              # Handles API/local conversions
│
├── 📁 Utilities/                          # Helpers
│   └── ApiHelper.vb                   # HTTP requests
│
└── 📄 MainForm.vb                       # Main UI form
```

```
| 📄 App.config          # API key & settings
| 📄 README.txt          # This file
```

⚙️ Setup Instructions

1. Prerequisites

- **Visual Studio 2019/2022** (with .NET Framework 4.8)
- **NuGet Packages:**
 - `Newtonsoft.Json` (for API responses)
 - (Optional) `EntityFramework` (if using a local DB)

2. API Key Setup

1. Get a **free API key** from exchangerate-api.com.
2. Open `App.config` and replace:
xml

Run

```
<add key="ApiKey" value="YOUR_API_KEY_HERE"/>
```

3. Build & Run

1. Open `PKR_Currency_Converter.sln` in Visual Studio.
 2. Press **F5** to compile and run.
-

🔧 How It Works

API Mode (Default)

1. On startup, the app fetches rates from:

```
https://v6.exchangerate-api.com/v6/{API_KEY}/latest/PKR
```

2. Rates are cached in `Data/ExchangeRates.json` for offline use.

Offline Mode

- If the API fails, the app uses the **last cached rates**.
 - To manually update rates, click "**Refresh Rates**" in the UI.
-

Customization

Add/Remove Currencies

1. Edit `CurrencyService.vb` to modify supported currencies:

vb

```
Public SupportedCurrencies As New List(Of String) From {  
    "USD", "EUR", "GBP", "JPY", "AED"  
}
```

Change Base Currency

- Modify `App.config`:

xml

Run

```
<add key="BaseCurrency" value="PKR"/>
```

! Troubleshooting

Issue	Solution
"API Error"	Check internet & API key in <code>App.config</code>
"Invalid Amount"	Ensure only numbers are entered
Rates not updating	Manually delete <code>Data/ExchangeRates.json</code>

License

MIT License - Free for personal/commercial use.

Contact

For questions/bugs, email: sardaralikhamosh@example.com

Happy Converting!

Developed with VB.NET  by Sardar Ali Khamosh