

Final Submission Document

Project Title:

Currency Converter using Real-Time API

AIM:

To develop a Python script that converts an amount from one currency to another using real-time exchange rates through a public API.

OBJECTIVES:

- * Understand how to fetch and handle data from a public API.
- * Learn how to process JSON responses.
- * Implement basic user interaction via terminal input.
- * Perform currency conversion with real-time rates.
- * Display the converted amount with proper formatting.

TECHNOLOGY USED:

Programming Language: Python 3.x

Libraries: requests

API Service: ExchangeRate-API (<https://www.exchangerate-api.com>)

Platform: Console / Terminal

CODE IMPLEMENTATION:

```
import requests

def convert_currency(amount, from_currency, to_currency, api_key):
    url = f"https://v6.exchangerate-api.com/v6/{api_key}/latest/{from_currency.upper()}"
    try:
        response = requests.get(url)
        data = response.json()
        if response.status_code != 200 or data["result"] != "success":
            print("Error fetching exchange rates.")
            return
        rate = data["conversion_rates"].get(to_currency.upper())
        if rate is None:
            print("Invalid target currency code.")
            return
        converted_amount = amount * rate
        print(f"\nConverted Amount: {converted_amount:.2f} {to_currency.upper()}")
    except Exception as e:
        print("An error occurred:", e)
```

```
def main():
    print("Currency Converter")
    try:
        amount = float(input("Enter amount: "))
        from_currency = input("Convert from (e.g., USD): ").strip()
        to_currency = input("Convert to (e.g., INR): ").strip()
        api_key = input("Enter your ExchangeRate-API key: ").strip()
        convert_currency(amount, from_currency, to_currency, api_key)
    except ValueError:
        print("Please enter a valid amount.")

if __name__ == "__main__":
    main()
```

SAMPLE OUTPUT:

```
Currency Converter
Enter amount: 100
Convert from (e.g., USD): USD
Convert to (e.g., INR): INR
Enter your ExchangeRate-API key: YOUR_API_KEY

Converted Amount: 8325.00 INR
```

GitHub Repository:

[Paste your GitHub repository public link here after uploading your `.py` file]

Submission:

Submit your GitHub repo link here:

Google Form - <https://forms.gle/tNFMkX5wt343vpCo7>