Currency Converter using API - Python Project

Project Description:

This Python script converts an amount from one currency to another using real-time exchange rates from an API.

Objectives:

- Learn how to fetch data from an API.

- Process JSON responses.

- Perform currency conversion.

Expected Output:

- Take user input (amount, source currency, target currency).

- Fetch the latest exchange rate.

- Convert the amount and display the result.

Steps to Complete:

- Sign up for a free API like ExchangeRate-API or exchangerate.host.

- Use the 'requests' library to fetch exchange rates.

- Extract and process JSON data.

- Implement user input to accept currency codes.

- Print the converted amount.

Python Code:

```python
import requests

def convert_currency(amount, from_currency, to_currency):
    url = f"https://api.exchangerate.host/convert?from={from_currency}&to={to_currency}&amount={amount}"
    response = requests.get(url)
    if response.status_code != 200:
        print("Error fetching data from API")
        return
    data = response.json()
    if data['info'] and data['result']:
        print(f"\n{amount} {from_currency} = {data['result']} {to_currency}")
    else:
        print("Conversion failed. Check currency codes.")
```

```
# --- Main Script ---
print("Welcome to Currency Converter")
try:
    amount = float(input("Enter amount: "))
    from_currency = input("Convert from (e.g., USD): ").upper()
    to_currency = input("Convert to (e.g., INR): ").upper()
    convert_currency(amount, from_currency, to_currency)
except ValueError:
    print("Please enter a valid number.")
```

Sample Output:

```
Welcome to Currency Converter

Enter amount: 100

Convert from (e.g., USD): USD

Convert to (e.g., INR): INR


100 USD = 8343.60 INR
```