**LEVEL – 3**

**Build a small program that converts one currency to another based on current exchange rates (either hard- coded or fetched from an API).**

import requests

# Function to get exchange rates from an API

def get\_exchange\_rates(api\_key, base\_currency='USD'):

url = f"https://v6.exchangerate-api.com/v6/{api\_key}/latest/{base\_currency}"

response = requests.get(url)

if response.status\_code == 200:

return response.json().get('conversion\_rates', {})

else:

print("Error fetching exchange rates.")

return {}

def convert\_currency(amount, from\_currency, to\_currency, exchange\_rates):

if from\_currency not in exchange\_rates or to\_currency not in exchange\_rates:

print("Invalid currency code.")

return None

# Convert to USD first, then to the target currency

amount\_in\_usd = amount / exchange\_rates[from\_currency]

converted\_amount = amount\_in\_usd \* exchange\_rates[to\_currency]

return converted\_amount

def main():

# Replace with your actual API key from https://www.exchangerate-api.com/

API\_KEY = "YOUR\_API\_KEY\_HERE"

print("Welcome to the Currency Converter!")

amount = float(input("Enter the amount you want to convert: "))

from\_currency = input("Enter the currency you want to convert from (e.g. USD, EUR, GBP): ").upper()

to\_currency = input("Enter the currency you want to convert to (e.g. USD, EUR, GBP): ").upper()

# Fetch exchange rates from the API

exchange\_rates = get\_exchange\_rates(API\_KEY)

if exchange\_rates:

converted\_amount = convert\_currency(amount, from\_currency, to\_currency, exchange\_rates)

if converted\_amount is not None:

print(f"{amount} {from\_currency} is equal to {converted\_amount:.2f} {to\_currency}")

else:

print("Conversion failed due to invalid currency code.")

else:

print("Could not fetch exchange rates.")

if \_\_name\_\_ == "\_\_main\_\_":

main()