**COGNORISE INFOTECH**

**TASK 3**

**CURRENCY CONVERTER:**

Build a currency converter web app that allows users to convert between different currencies.

Fetch real-time exchange rates from a public API and perform currency conversion

based on user input.

Use HTML, CSS, JavaScript, and fetch API for fetching exchange rates and

performing calculations

**CODE:**

**Html:**

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8">**

**<meta name="viewport" content="width=device-width, initial-scale=1.0">**

**<title>Currency Converter</title>**

**<link rel="stylesheet" href="styles.css">**

**</head>**

**<body>**

**<div class="container">**

**<h1>Currency Converter</h1>**

**<form id="converter">**

**<div class="input-group">**

**<label for="amount">Amount:</label>**

**<input type="number" id="amount" required>**

**</div>**

**<div class="input-group">**

**<label for="fromCurrency">From:</label>**

**<select id="fromCurrency" required>**

**<!-- Options will be populated dynamically -->**

**</select>**

**</div>**

**<div class="input-group">**

**<label for="toCurrency">To:</label>**

**<select id="toCurrency" required>**

**<!-- Options will be populated dynamically -->**

**</select>**

**</div>**

**<button type="submit">Convert</button>**

**</form>**

**<div id="result"></div>**

**</div>**

**<script src="script.js"></script>**

**</body>**

**</html>**

**Css:**

**body {**

**font-family: Arial, sans-serif;**

**background-color: #f4f4f4;**

**display: flex;**

**justify-content: center;**

**align-items: center;**

**height: 100vh;**

**margin: 0;**

**}**

**.container {**

**background-color: #fff;**

**padding: 20px;**

**border-radius: 8px;**

**box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);**

**width: 300px;**

**}**

**h1 {**

**text-align: center;**

**margin-bottom: 20px;**

**}**

**.input-group {**

**margin-bottom: 15px;**

**}**

**.input-group label {**

**display: block;**

**margin-bottom: 5px;**

**}**

**.input-group input,**

**.input-group select {**

**width: 100%;**

**padding: 8px;**

**box-sizing: border-box;**

**}**

**button {**

**width: 100%;**

**padding: 10px;**

**background-color: #28a745;**

**color: #fff;**

**border: none;**

**border-radius: 4px;**

**cursor: pointer;**

**}**

**button:hover {**

**background-color: #218838;**

**}**

**#result {**

**margin-top: 20px;**

**text-align: center;**

**font-size: 1.2em;**

**}**

**JavaScript:**

**document.addEventListener('DOMContentLoaded', () => {**

**const apiURL = 'https://api.exchangerate-api.com/v4/latest/USD';**

**const amountInput = document.getElementById('amount');**

**const fromCurrency = document.getElementById('fromCurrency');**

**const toCurrency = document.getElementById('toCurrency');**

**const resultDiv = document.getElementById('result');**

**// Fetch exchange rates and populate currency options**

**fetch(apiURL)**

**.then(response => response.json())**

**.then(data => {**

**const currencies = Object.keys(data.rates);**

**currencies.forEach(currency => {**

**const optionFrom = document.createElement('option');**

**optionFrom.value = currency;**

**optionFrom.textContent = currency;**

**fromCurrency.appendChild(optionFrom);**

**const optionTo = document.createElement('option');**

**optionTo.value = currency;**

**optionTo.textContent = currency;**

**toCurrency.appendChild(optionTo);**

**});**

**})**

**.catch(error => console.error('Error fetching exchange rates:', error));**

**// Handle form submission**

**document.getElementById('converter').addEventListener('submit', event => {**

**event.preventDefault();**

**const amount = amountInput.value;**

**const from = fromCurrency.value;**

**const to = toCurrency.value;**

**if (from === to) {**

**resultDiv.textContent = 'Please choose different currencies.';**

**return;**

**}**

**fetch(${apiURL}?base=${from})**

**.then(response => response.json())**

**.then(data => {**

**const rate = data.rates[to];**

**const convertedAmount = (amount \* rate).toFixed(2);**

**resultDiv.textContent = ${amount} ${from} = ${convertedAmount} ${to};**

**})**

**.catch(error => console.error('Error fetching conversion rate:', error));**

**});**

**});**