Assignment

Q. Explain with suitable example How to create a currency converter by consuming API.

Ans.

Code:-

HTML CODE:-

```
<!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="currency.css">

</head>

<body>

  <div class="container">

    <div class="head">

      <h1 class="">CURRENCY CONVERTER</h1>

    </div>


    <div class="Amt-1">

      <label for="oamount">Amount To Convert</label>

      <input type="text" class="searchBox" placeholder="0.00" id="oamount">

    </div>
```

```html
<div class="mid-wrap">

  <div>

    <span class="">From</span>

    <select class="from" id="sel1">

      <option value="">Select One ...</option>

      <option value="USD">USD</option>

      <option value="AED">AED</option>

      <option value="ARS">ARS</option>

      <option value="AUD">AUD</option>

      <option value="BGN">BGN</option>

      <option value="BRL">BRL</option>

      <option value="BSD">BSD</option>

      <option value="CAD">CAD</option>

      <option value="CHF">CHF</option>

      <option value="CLP">CLP</option>

      <option value="CNY">CNY</option>

      <option value="COP">COP</option>

      <option value="CZK">CZK</option>

      <option value="DKK">DKK</option>

      <option value="DOP">DOP</option>

      <option value="EGP">EGP</option>

      <option value="EUR">EUR</option>
```

```
<option value="FJD">FJD</option>

<option value="GBP">GBP</option>

<option value="GTQ">GTQ</option>

<option value="HKD">HKD</option>

<option value="HRK">HRK</option>

<option value="HUF">HUF</option>

<option value="IDR">IDR</option>

<option value="ILS">ILS</option>

<option value="INR">INR</option>

<option value="ISK">ISK</option>

<option value="JPY">JPY</option>

<option value="KRW">KRW</option>

<option value="KZT">KZT</option>

<option value="MVR">MVR</option>

<option value="MXN">MXN</option>

<option value="MYR">MYR</option>

<option value="NOK">NOK</option>

<option value="NZD">NZD</option>

<option value="PAB">PAB</option>

<option value="PEN">PEN</option>

<option value="PHP">PHP</option>

<option value="PKR">PKR</option>

<option value="PLN">PLN</option>

<option value="PYG">PYG</option>
```

```html
                    <option value="RON">RON</option>

                    <option value="RUB">RUB</option>

                    <option value="SAR">SAR</option>

                    <option value="SEK">SEK</option>

                    <option value="SGD">SGD</option>

                    <option value="THB">THB</option>

                    <option value="TRY">TRY</option>

                    <option value="TWD">TWD</option>

                    <option value="UAH">UAH</option>

                    <option value="UYU">UYU</option>

                    <option value="ZAR">ZAR</option>

                </select>

        </div>

        <div>

                <span class="">To</span>

                <select class="to" id="sel2">

                    <option value="">Select One ...</option>

                    <option value="USD">USD</option>

                    <option value="AED">AED</option>

                    <option value="ARS">ARS</option>

                    <option value="AUD">AUD</option>

                    <option value="BGN">BGN</option>

                    <option value="BRL">BRL</option>
```

```html
<option value="BSD">BSD</option>
<option value="CAD">CAD</option>
<option value="CHF">CHF</option>
<option value="CLP">CLP</option>
<option value="CNY">CNY</option>
<option value="COP">COP</option>
<option value="CZK">CZK</option>
<option value="DKK">DKK</option>
<option value="DOP">DOP</option>
<option value="EGP">EGP</option>
<option value="EUR">EUR</option>
<option value="FJD">FJD</option>
<option value="GBP">GBP</option>
<option value="GTQ">GTQ</option>
<option value="HKD">HKD</option>
<option value="HRK">HRK</option>
<option value="HUF">HUF</option>
<option value="IDR">IDR</option>
<option value="ILS">ILS</option>
<option value="INR">INR</option>
<option value="ISK">ISK</option>
<option value="JPY">JPY</option>
<option value="KRW">KRW</option>
<option value="KZT">KZT</option>
```

```html
            <option value="MVR">MVR</option>

            <option value="MXN">MXN</option>

            <option value="MYR">MYR</option>

            <option value="NOK">NOK</option>

            <option value="NZD">NZD</option>

            <option value="PAB">PAB</option>

            <option value="PEN">PEN</option>

            <option value="PHP">PHP</option>

            <option value="PKR">PKR</option>

            <option value="PLN">PLN</option>

            <option value="PYG">PYG</option>

            <option value="RON">RON</option>

            <option value="RUB">RUB</option>

            <option value="SAR">SAR</option>

            <option value="SEK">SEK</option>

            <option value="SGD">SGD</option>

            <option value="THB">THB</option>

            <option value="TRY">TRY</option>

            <option value="TWD">TWD</option>

            <option value="UAH">UAH</option>

            <option value="UYU">UYU</option>

            <option value="ZAR">ZAR</option>

        </select>

    </div>
```

```html
        <div class="ans-1">

            <button class="convert" type="submit">Convert </button>

            <button class="rest-1" onclick="clearVal()">Reset</button>

        </div>


        <div id="finalAmount" class="ans-2">

            <h2> Converted Amount:

                <span class="finalValue"></span>

            </h2>

        </div>

      </div>

    </div>


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

</body>

</html>
```

CSS CODE:-

```css
*{

    margin: 0;

    padding: 0;

    box-sizing: border-box;

}
```

```css
body{

    justify-content: center;

    align-items: center;

    display: flex;

    background: url(red.jpg) no-repeat;

    background-size: cover;

    min-height: 100vh;

    box-shadow: red 40px;

}

.container{

    border: 1px solid black;

    border-radius: 40px;

    height: 500px;

    width: 600px;

    background: transparent;

    background: black;

    box-shadow: 0px 0px 30px red;

    padding: 40px;

    color: red;

}


.head{

    font-size: 20px;

    border-bottom: 1px solid red;
```

```css
        text-shadow: 2px 2px red;

    }


    .Amt-1{

        margin-top: 10px;

        font-size: 18px;

    }

    .searchBox{

        background: transparent;

        height: 30px;

        width: 200px;

        border: 1px solid red;

        border-radius: 8px;

        margin: 20px;

        color: wheat;

        padding: 20px;

        font-size: 18px;

    }


    .mid-wrap{

        padding-top: 10px;

        font-size: 20px;

    }

    .from{
```

```css
    background: transparent;

    color: red;

    margin: 20px;

    border-radius: 4px;

    border: 1px solid red;

}


.to{

    background: transparent;

    color: red;

    margin: 20px;

    border-radius: 4px;

    border: 1px solid red;

}



.ans-1{

    padding-top: 20px;

}
.convert{

    margin: 10px;

    background: transparent;

    color: white;

    height: 40px;
```

```css
    width: 100px;

    border: 1px solid red;

    border-radius: 8px;

}


.convert:hover{

    background-color: red;

}


.rest-1{

    margin: 10px;

    background: transparent;

    color: white;

    height: 40px;

    width: 100px;

    border: 1px solid red;

    border-radius: 8px;

}


.rest-1:hover{

    background-color: red;

}


.ans-2{
```

```css
    padding-top: 40px;

}

.finalValue{

    color: white;

}
```

JAVASCRIPT CODE:-

```javascript
const api = "https://api.exchangerate-api.com/v4/latest/USD";


var search = document.querySelector(".searchBox");

var fromCurrency = document.querySelector(".from");

var toCurrency = document.querySelector(".to");

var convert = document.querySelector(".convert");

var finalValue = document.querySelector(".finalValue");

var finalAmount = document.getElementById("finalAmount");


var resultFrom;

var resultTo;

var searchValue;


fromCurrency.addEventListener('change' , (event) => {

    resultFrom = `${event.target.value}`;

});


toCurrency.addEventListener('change' , (event) => {
```

```javascript
    resultTo = `${event.target.value}`;

});


search.addEventListener('input' , updateValue);


function updateValue(e){

    searchValue = e.target.value;

}
convert.addEventListener('click' , getResults);


//fuction getResults
function getResults() {

    fetch(`https://api.exchangerate-api.com/v4/latest/${resultFrom}`)

        .then(currenc => {

            return currenc.json();

        }).then(displayResult);

}


//display results after conversion
function displayResult(currency) {

    let toRate = currency.rates[resultTo];


    finalValue.innerHTML = (toRate * searchValue).toFixed(2);

    // document.write( (toRate * searchValue).tofixed(2));
```

```
    finalAmount.style.display = "block";

}


//when user click on reset button

function clearVal() {

    window.location.reload();

    document.getElementsByClassName("finalValue").innerHTML = "";

};
```

OUTPUT:-