Simple Prime number encryption example:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Prime Number Encryption/Decryption</title>

<style>

body {

font-family: Arial, sans-serif;

margin: 20px;

}

.container {

max-width: 400px;

margin: 0 auto;

}

textarea, input {

width: 100%;

padding: 10px;

margin: 10px 0;

border: 1px solid #ccc;

border-radius: 5px;

}

button {

padding: 10px 20px;

background-color: #007bff;

color: white;

border: none;

border-radius: 5px;

cursor: pointer;

}

button:hover {

background-color: #0056b3;

}

</style>

</head>

<body>

<div class="container">

<h1>Prime Number Encryption/Decryption</h1>

<textarea id="inputText" placeholder="Enter your text here"></textarea>

<input type="number" id="primeKey" placeholder="Enter a prime number key" min="2">

<button onclick="encrypt()">Encrypt</button>

<button onclick="decrypt()">Decrypt</button>

<textarea id="outputText" placeholder="Result will appear here" readonly></textarea>

</div>

<script>

// Function to check if a number is prime

function isPrime(num) {

if (num < 2) return false;

for (let i = 2, sqrt = Math.sqrt(num); i <= sqrt; i++) {

if (num % i === 0) return false;

}

return true;

}

// Function to encrypt the text

function encrypt() {

const inputText = document.getElementById('inputText').value;

const primeKey = parseInt(document.getElementById('primeKey').value);

if (!isPrime(primeKey)) {

alert('Please enter a valid prime number key.');

return;

}

let encryptedText = '';

for (let i = 0; i < inputText.length; i++) {

const charCode = inputText.charCodeAt(i) + primeKey;

encryptedText += String.fromCharCode(charCode);

}

document.getElementById('outputText').value = encryptedText;

}

// Function to decrypt the text

function decrypt() {

const encryptedText = document.getElementById('outputText').value;

const primeKey = parseInt(document.getElementById('primeKey').value);

if (!isPrime(primeKey)) {

alert('Please enter a valid prime number key.');

return;

}

let decryptedText = '';

for (let i = 0; i < encryptedText.length; i++) {

const charCode = encryptedText.charCodeAt(i) - primeKey;

decryptedText += String.fromCharCode(charCode);

}

document.getElementById('outputText').value = decryptedText;

}

</script>

</body>

</html>