

# Encryption and Decryption

**Encryption** is the process by which a readable message is converted to an unreadable form to prevent unauthorized parties from reading it. **Decryption** is the process of converting an encrypted message back to its original (readable) format. The original message is called the **plaintext message**. The encrypted message is called the **ciphertext message**.

Digital encryption algorithms work by manipulating the digital content of a plaintext message mathematically, using an encryption algorithm and a digital key to produce a ciphertext version of the message. The sender and recipient can communicate securely if the sender and recipient are the only ones who know the key.

## Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Text Encryption and Decryption</title>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/crypto-js/4.0.0/crypto-
js.min.js"></script>
</head>
<body>
  <h1>Text Encryption and Decryption</h1>
  <textarea id="inputText" rows="4" cols="50" placeholder="Enter text to encrypt
or decrypt"></textarea><br><br>
  <button onclick="encryptDecrypt()">Encrypt/Decrypt</button><br><br>
  <textarea id="outputText" rows="4" cols="50" placeholder="Encrypted or
Decrypted text"></textarea><br><br>
  <script>
    function encryptDecrypt() {
      var inputText = document.getElementById("inputText").value;
      var key = "your_secret_key";
      var encrypted = CryptoJS.AES.encrypt(inputText, key).toString();
      var decrypted = CryptoJS.AES.decrypt(encrypted,
key).toString(CryptoJS.enc.Utf8);
      document.getElementById("outputText").value = "Encrypted: " + encrypted +
"\n\nDecrypted: " + decrypted;
    }
  </script>
</body>
</html>
```

## Output:

