

CNS-LAB3

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E18CSE169

EB03

Question 1: (Language: JAVASCRIPT, Server : TOMCAT v9)

```
<html>
<head>
<title>Vigenere Cypher</title>
<h1> Vigenere Cypher </h1>
</head>
<body>
<p> key is Bennett </p>

<script>
function encryption(){
var P1 = window.prompt("Enter plain text for encryption");
let K="Bennett";
var A="abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ ";
var out1 = "";

for (let i = 0; i < P1.length; i++)
{
    out1 +=
A.charAt((A.indexOf(P1.charAt(i))+A.indexOf(K.charAt(i%K.length)))%A.length);
}
    alert(out1);
}

</script>

<script>
function decryption() {
var P2 = window.prompt("Enter plain text for decryption");
let K='Bennett';
var A="abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ ";
var out2= "";
for (var i = 0;i < P2.length;i++)
{
    out2 += A.charAt(((A.indexOf(P2.charAt(i))+A.length)-
A.indexOf(K.charAt(i%K.length)))%A.length);
}

    alert(out2);
}

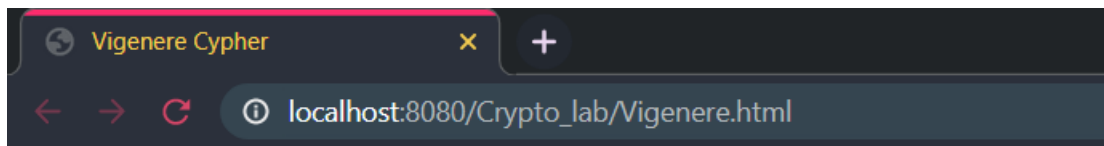
</script>
<button onclick="encryption()">Encryption</button>

<button onclick="decryption()">Decryption</button>

</body>
</html>
```

Output

1 Index page

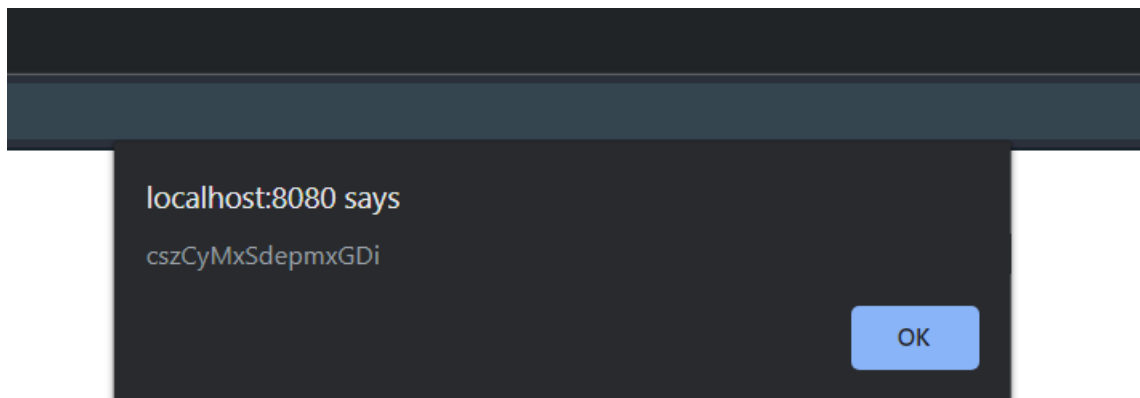
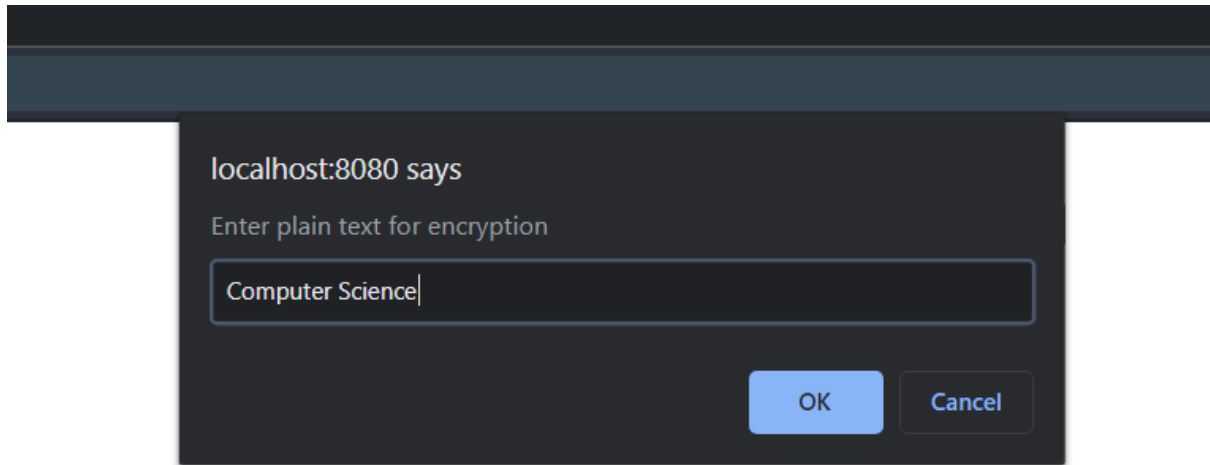


Vigenere Cypher

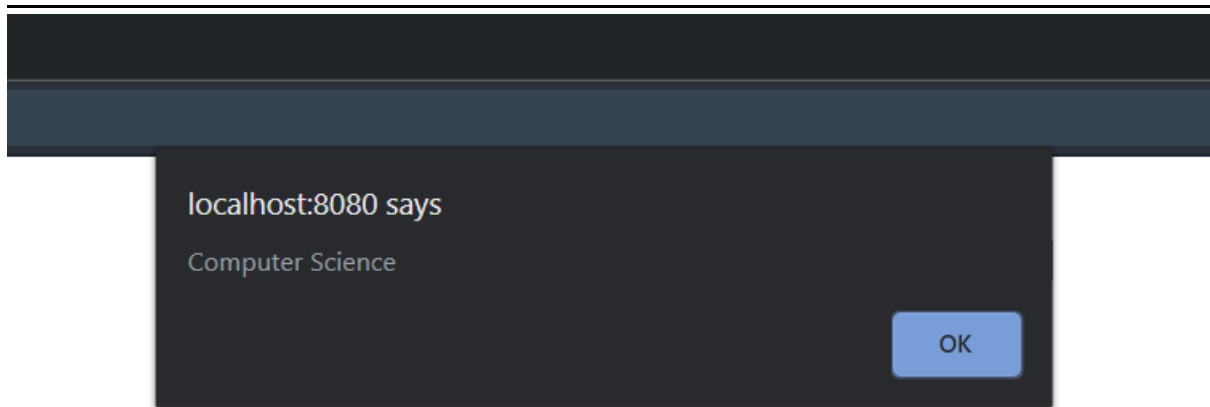
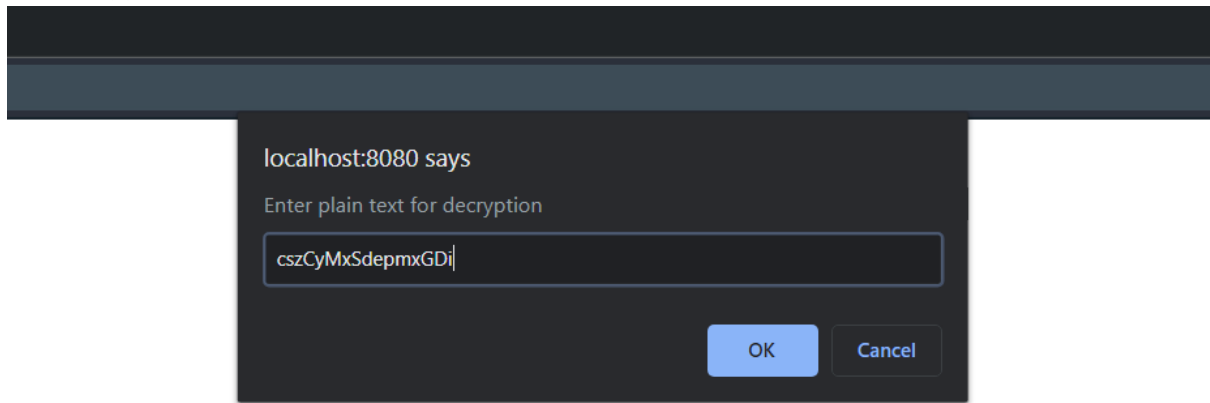
key is Bennett

Encryption Decryption

2 encryption



3 Decryption



Question 2

CODE: (Language: Python3)

```
import random
```

```
class Vernam:
```

```
    def encryption():
```

```
        key=""
```

```
        encrypt_str=input("Enter binary string to encrypt: ")
```

```
        A=[int(i) for i in list(encrypt_str)]
```

```
        e = [0 if random.random() > 0.5 else 1 for i in range(len(A))]
```

```
        key = key.join([str(i) for i in e])
```

```
        print(f'Key: {key}')
```

```
        result=[A[i]^e[i] for i in range(len(A))]
```

```
        output= "".join([str(i) for i in result])
```

```
        print(f'Encrypted Text: {output}')
```

```
    def decryption():
```

```
        decrypt_str=input("Enter binary string to decrypt: ")
```

```
        k= input("Enter binary Kwy for decryption: " )
```

```
        D=[int(i) for i in list(decrypt_str)]
```

```
        K=[int(i) for i in list(k)]
```

```
        res=[D[i]^K[i] for i in range(len(D))]
```

```
        out="".join([str(i) for i in res])
```

```
        print(f'Decrypted Text: {out}')
```

```
encryption()
```

```
decryption()
```

OUTPUT:

```
def decryption():
```

```
Enter binary string to encrypt: 10011101010101111100001
Key: 11110110100100000000111
Encrypted Text: 01101011110001111100110
Enter binary string to decrypt: 01101011110001111100110
Enter binary Kwy for decryption: 11110110100100000000111
Decrypted Text: 10011101010101111100001
```

```
]:
```