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Github Link: <https://github.com/adarshguptacse18/Network-Security>

Screenshots:

Encryption:

Assignment-0

Enryption Successful

Plain text

i am adarsh gupta

Encrypted Text

r zn zwzihs tfkgz

Instructions

- If you write in 1st box, then the encrypted text will be shown in the second box
- If you write in 2nd box, then the plain text text will be shown in the first box
- Algorithm: $\text{plainChar} + \text{encryptChar} = 25$ (0 - based indexing)

Decryption:

Assignment-0

Decryption Successful

Plain text

i am adarsh gupta

Encrypted Text

r zn zwzihs tfkgz

Instructions

- If you write in 1st box, then the encrypted text will be shown in the second box
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- Algorithm: $\text{plainChar} + \text{encryptChar} = 25$ (0 - based indexing)

Code:

```
function isLower(c) {
    return (c >= 'a' && c <= 'z');
}

function isUpper(c) {
    return (c >= 'A' && c <= 'Z');
}

// This functions a character x such that (x + c) == 25 (0 based indexing)
function calculateComplement(c) {
    let base;
    if(isUpper(c)) {           //lowercase
        base = 65;
    } else if(isLower(c)) {    //uppercase
        base = 97;
    }
    else return c;             //returns the same if
the character is not a english alphabet

    const resCode = 25 - (c.charCodeAt(0) - base) + base; // apply our logic
and add base value to the resulting value

    return String.fromCharCode(resCode);                 // returns the
character at that ascii value
}

// this function returns applies the logic to whole code
const encodeDecode = (str) => [...str].map(calculateComplement).join('');
```