# Network Security (Assignment 0)

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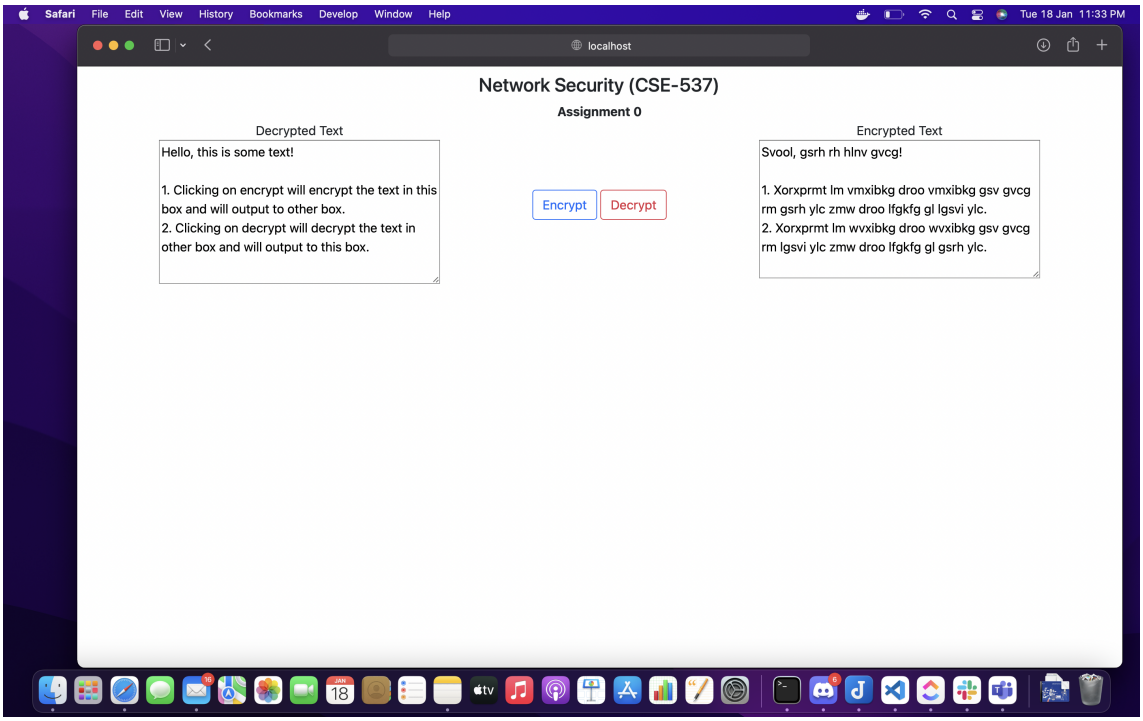
## Screenshot




## Code

```
class AtBashCipher {
    cipherMap = {};

    buildCipherMapForRange(startChar, endChar) {
        const startCode = startChar.charCodeAt(0);
        const endCode = endChar.charCodeAt(0);
        for (let i = 0; i < (endCode-startCode+1); i++) {
            this.cipherMap[String.fromCharCode(startCode + i)] =
String.fromCharCode(endCode - i);
        }
    }

    buildCipherMap() {
        this.buildCipherMapForRange('a', 'z');
        this.buildCipherMapForRange('A', 'Z');
    }

    applyCipher(text) {
        let newText = "";
```

```
        for (const c of text) {
            newText += this.cipherMap[c] === undefined ? c : this.cipherMap[c];
        }
        return newText;
    }
}

const decrypted_text_id = "decrypted_text";
const encrypted_text_id = "encrypted_text";
const cipher = new AtBashCipher();
cipher.buildCipherMap();

function performOperation(operation) {
    if (operation === 'encrypt') {
        const text = document.getElementById(decrypted_text_id).value;
        document.getElementById(encrypted_text_id).value = cipher.applyCipher(text);
    } else {
        const text = document.getElementById(encrypted_text_id).value;
        document.getElementById(decrypted_text_id).value = cipher.applyCipher(text);
    }
}
```

This is the javascript code that runs when user is using the webpage. When user clicks on `Encrypt`, `performOperation` function is called with `encrypt` argument and similar thing happens when user clicks `Decrypt`.

The cipher implementation is present in `AtBashCipher` class.

## GitHub Repo

GitHub Repository Link - https://github.com/nishantwrp/CSE-537-Network-Security/tree/main/encipher-decipher