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CB.SC.U4CYS23036

Assignment - 2

Qn1,

```
const fs = require('fs');
const filePath = __dirname + '/file.txt';

fs.readFile(filePath, function(err, data) {
  if (err) {
    console.error('error while reading file:', err);
    return;
  }
  const words = data.toString().split(' ');
  const freq = {};
  for (let i = 0; i < words.length; i++) {
    const word = words[i].toLowerCase();
    if (word !== '') {
      if (freq[word] === undefined) {
        freq[word] = 1;
      } else {
        freq[word] = freq[word] + 1;
      }
    }
  }
  console.log('Unique words and frequencies:');
  for (let count in freq) {
    console.log(count + ' : ' + freq[count]);
  }
});
```

Output:

```
• ~/Praneesh/Academics  ? main  ? > node "/home/crimson/Praneesh/Academics/Sem5/Secure Coding/Assignment-2/qn1.js"
unique words and frequencies:
cybersecurity : 3
pentesting : 3
anime : 2
onepiece : 2
github : 3
javascript : 3
obsidian : 1
firefox : 2
malware : 3
firewall : 2
arch : 2
hyprland : 2
framework : 1
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```

File.txt content

```
cybersecurity pentesting anime onepiece github javascript obsidian
firefox malware firewall arch hyprland javascript malware hyprland
cybersecurity arch github pentesting github firefox firewall pentesting
framework malware anime javascript onepiece cybersecurity
```

Qn2,

```
const fs = require('fs');
const fp = __dirname + '/file.txt';
fs.readFile(fp, function(e, d) {
    if(e) {
        console.log('err', e);
        return;
    }
    const a = d.toString().split(' ');
    let b = [];
    let x = 0;
    while(x<20) {
        b[x]=0;
        x++;
    }
    let y = 0;
```

```

while(y<a.length){
    let z = a[y].toLowerCase();
    if(z!=' '){
        let i = 1;
        while(i<=3){
            let s = 0;
            let j = 0;
            while(j<z.length){
                s = s + z.charCodeAt(j);
                j++;
            }
            let h = (i + s)%20;
            b[h]=1;
            i++;
        }
    }
    y++;
}
console.log(b);
});

```

```

● ~/Praneesh/Academics  ? main  ? > node
[
  1, 1, 1, 1, 1, 1, 1,
  1, 1, 1, 1, 1, 1, 0,
  0, 1, 1, 1, 1, 0
]
◆ ~/Praneesh/Academics  ? main  ? >

```

Qn3,

```

const fs = require('fs');
const filePath = __dirname + '/file.txt';
let arr = [];
let i = 0;

```

```
while(i < 100) {  
    arr[i] = 0;  
    i++;  
}  
let data = fs.readFileSync(filePath);  
let words = data.split(' ');  
  
for(let k = 0; k < words.length; k++) {  
    let word = words[k];
```