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CB.SC.U4CYS23036

Qn 1,

```
const readline = require("readline-sync");

let users = {
   "luffy":"gear5",
   "zoro":"enma",
   "praneesh":"Conqueror101",
   "sayanthan":"IronHeart",
   "sahil":"b2Bomber"
}
let maxAttempts = 3;
let attempts = 0;
let auth = false;

while(attempts<maxAttempts && !auth){
   let inputUser = readline.question("Enter Username: ");
   let inputPass = readline.question("Enter Password: ");

   if (users[inputUser] == inputPass){
       console.log("Authentication successful");
       auth = true;
   }
   else {
       attempts ++;
       if (attempts < maxAttempts){
           console.error("Authentication failed. Please try
again.");

       }
   }
```

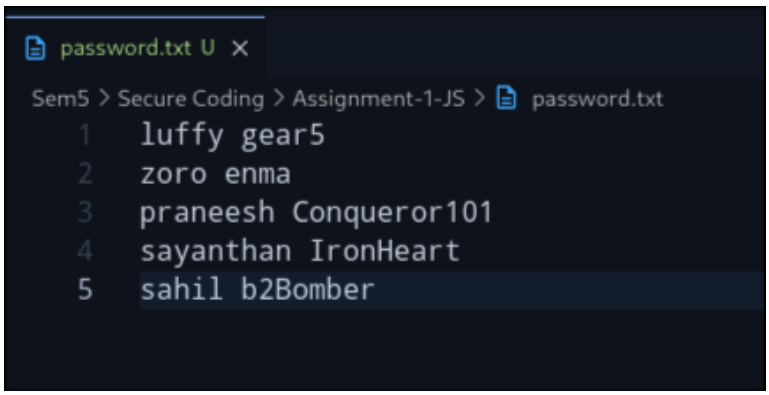
```
}

if (!auth && attempts >= maxAttempts){
   console.error("Limit Exceeded");
}
```

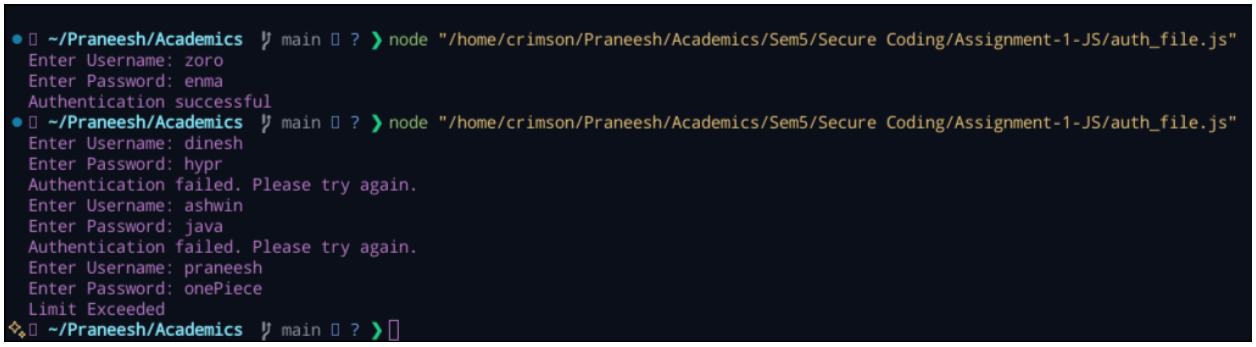
```
~/Praneesh/Academics  main ? ❯ node "/home/
Enter Username: luffy
Enter Password: gear5
Authentication successful
~/Praneesh/Academics  main ? ❯ node "/home/
Enter Username: sahil
Enter Password: nuclear
Authentication failed. Please try again.
Enter Username: ashwin
Enter Password: rockstar123
Authentication failed. Please try again.
Enter Username: sayanthan
Enter Password: ironman
Limit Exceeded
~/Praneesh/Academics  main ? ❯
```

Qn2,

```
const fs = require("fs");
const readline = require("readline-sync");
const filePath = __dirname + '/password.txt';

let data =
fs.readFileSync(filePath).toString().trim().split("\n");
let users = {};

for (let i=0; i<data.length; i++){
   let parts = data[i].split(" ");
   users[parts[0]]= parts[i];
}

let maxAttempts = 3;
```

```
let attempts = 0;
let auth = false;

while(attempts<maxAttempts && !auth){
   let inputUser = readline.question("Enter Username: ");
   let inputPass = readline.question("Enter Password: ");

   if (users[inputUser] == inputPass){
       console.log("Authentication successful");
       auth = true;
   }
   else {
       attempts ++;
       if (attempts < maxAttempts){
           console.error("Authentication failed. Please try
again.");

       }
   }

}

if (!auth && attempts >= maxAttempts){
   console.error("Limit Exceeded");
}
```





Qn3,

```
const fs = require("fs");
const crypto = require("crypto");
const readline = require("readline-sync");

const filePath = __dirname + "/hashed_password.txt";

function hashPwd(password) {
 return
crypto.createHash("sha256").update(password).digest("hex");
}

let data =
fs.readFileSync(filePath).toString().trim().split("\n");
let users = {};

for (let i = 0; i < data.length; i++) {
 let parts = data[i].split(" ");
 let username = parts[0];
 let hash = parts[1];
 users[username] = hash;
}

let maxAttempts = 3;
let attempts = 0;
let auth = false;
```

```
while(attempts<maxAttempts && !auth){
   let inputUser = readline.question("Enter Username: ");
   let inputPass = readline.question("Enter Password: ");

   let inputHash = hashPwd(inputPass);


 if (users[inputUser] === inputHash) {
       console.log("Authentication successful");
       auth = true;
   }
   else {
       attempts ++;
       if (attempts < maxAttempts){
           console.error("Authentication failed. Please try
again.");

       }
   }

}

if (!auth && attempts >= maxAttempts){
   console.error("Limit Exceeded");
}
```

hashed_password.txt U

Sem5 > Secure Coding > Assignment-1-JS > hashed_password.txt

```
luffy 68293c803068be189c7027ec48680d7e90ed4abf9647c535805424564912582d
zoro f80eb8656ae19cfbd7dfc6044c44d3e0201835b919cf676a8283d5ab7bfb7d28
praneesh fbed169e644100a3cba3f2711d819b57622514aa6e65bb12e79e51a564207cee
sayanthan 1f344841b5d211891eeb1425fee98d465a4edb0f21633b9b970e05e2f1956245
sahil 659debb8d533fcb4fa8aaccca4fcc3c4be4cb4815ebcca997512326465d41a05
```

```
~/Praneesh/Academics  main ? ❯ node "/home/crimson/Praneesh/Academics/Sem5/Secure Coding/Assignment-1-JS/auth_hash.js"
Enter Username: sahil
Enter Password: b2Bomber
Authentication successful
~/Praneesh/Academics  main ? ❯ node "/home/crimson/Praneesh/Academics/Sem5/Secure Coding/Assignment-1-JS/auth_hash.js"
Enter Username: adithya
Enter Password: allaboveone
Authentication failed. Please try again.
Enter Username: pikachu
Enter Password: thunder
Authentication failed. Please try again.
Enter Username: tsar
Enter Password: russian_winter
Limit Exceeded
~/Praneesh/Academics  main ? ❯
```