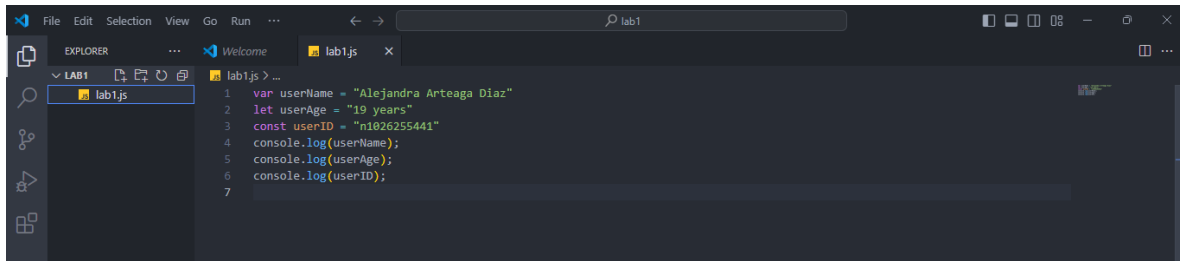
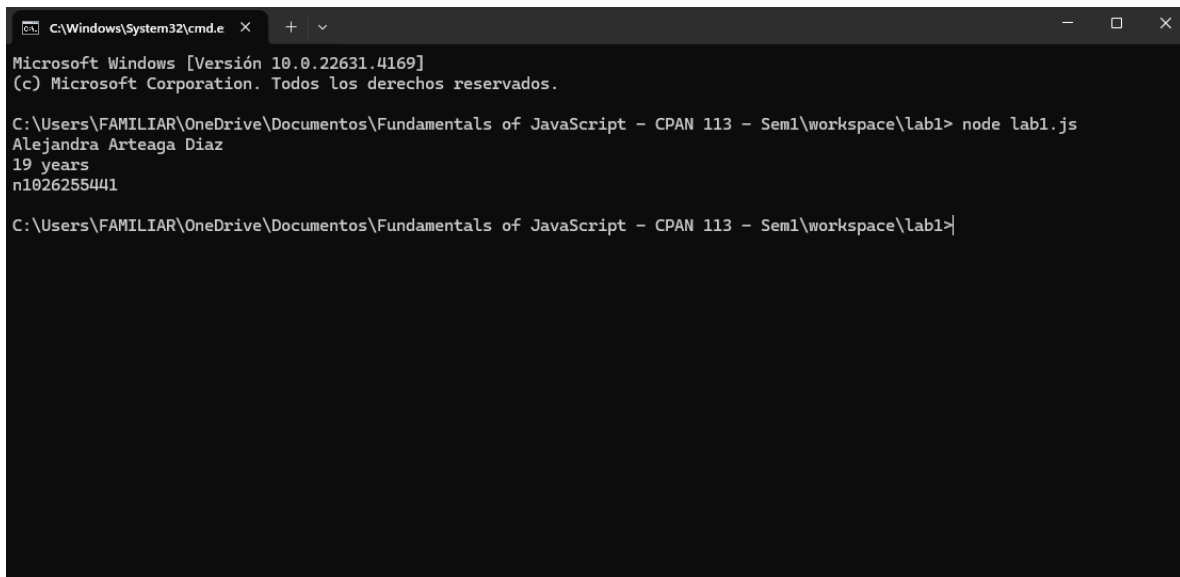


## LAB 1: VARIABLES AND DATA TYPES

### TASK 1 DECLARING VARIABLES.



```
1 var userName = "Alejandra Arteaga Diaz"
2 let userAge = "19 years"
3 const userID = "n1026255441"
4 console.log(userName);
5 console.log(userAge);
6 console.log(userID);
7
```



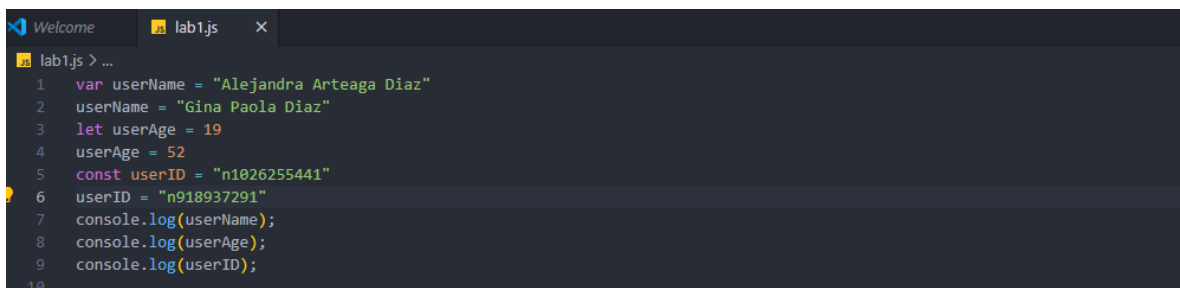
```
C:\Windows\System32\cmd.exe
Microsoft Windows [Versión 10.0.22631.4169]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Alejandra Arteaga Diaz
19 years
n1026255441

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1>
```

Teacher I removed the 'years' in the userAge. I realized about it a few minutes later.

### TASK 2 UPDATING VARIABLES



```
1 var userName = "Alejandra Arteaga Diaz"
2 userName = "Gina Paola Diaz"
3 let userAge = 19
4 userAge = 52
5 const userID = "n1026255441"
6 userID = "n918937291"
7 console.log(userName);
8 console.log(userAge);
9 console.log(userID);
10
```

```
C:\Windows\System32\cmd.exe X + v
Microsoft Windows [Versión 10.0.22631.4169]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Alejandra Arteaga Diaz
19 years
n1026255441

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1\lab1.js:6
userID = "N5263403732"
^
TypeError: Assignment to constant variable.
    at Object.<anonymous> (C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1\lab1.js:6:8)
    at Module._compile (node:internal/modules/cjs/loader:1469:14)
    at Module._extensions..js (node:internal/modules/cjs/loader:1548:10)
    at Module.load (node:internal/modules/cjs/loader:1288:32)
    at Module._load (node:internal/modules/cjs/loader:1104:12)
    at Function.executeUserEntryPoint [as runMain] (node:internal/modules/run_main:174:12)
    at node:internal/main/run_main_module:28:49

Node.js v20.17.0

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1>
```

The command prompt displays an error because we are changing the constant variable and it is a variable that can not be changed.

```
C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Gina Paola Diaz
52
n1026255441
```

If we keep the userID constant, the system will show us the username and userAge information updated due to they are variables (changing information).

### TASK 3 WORKING WITH DIFFERENT DATA TYPES

```
10 let score = 95.5;
11 console.log(score);
12 let courseName = "Fundamentals of JavaScript";
13 console.log(courseName);
14 let isEnrolled = true;
15 console.log(isEnrolled);
16 let grades = [90, 95, 88, 92];
17 console.log(grades[0]);
18 console.log(grades);
19 let student = {
20   name: "Alejandra Arteaga Diaz",
21   age: 19,
22   course: "CPAN 113"
23 };
24 console.log(student.name);
25 console.log(student.age);
26 console.log(student.course);
27
```

```
C:\Windows\System32\cmd.exe X + v
Microsoft Windows [Versión 10.0.22631.4169]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Gina Paola Diaz
52
n1026255441
95.5
Fundamentals of JavaScript
true
90
[ 90, 95, 88, 92 ]
Alejandra Arteaga Diaz
19
CPAN 113
```

#### TASK 4 ARITHMETIC OPERATIONS

```
27
28 console.log(userAge + score);
29 console.log(score - userAge);
30 console.log(userAge * 2);
31 console.log (score / userAge);
32

Microsoft Windows [Versión 10.0.22631.4169]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Gina Paola Diaz
52
n1026255441
95.5
Fundamentals of JavaScript
true
90
[ 90, 95, 88, 92 ]
Alejandra Arteaga Diaz
19
CPAN 113
147.5
43.5
104
1.8365384615384615
```

#### TASK 5 COMPARISON OPERATIONS

```
32
33 let anotherAge = 48
34 console.log(userAge == anotherAge);
35 console.log(userAge === anotherAge);
36 let anotherScore = 89.7
37 console.log(score < anotherScore);
38 console.log(score >= anotherScore);
39 console.log(isEnrolled);
40
```

```

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Gina Paola Diaz
52
n1026255441
95.5
Fundamentals of JavaScript
true
90
[ 90, 95, 88, 92 ]
Alejandra Arteaga Diaz
19
CPAN 113
147.5
43.5
104
1.8365384615384615
false
false
false
true
true

```

## TASK 6 CONDITIONAL STATEMENTS

```

40
41 if (userAge > 18){
42   console.log("greater than 18")
43 } else {console.log("less than 18")}
44
45 switch (courseName){
46   case "Math":
47     console.log("You selected math course");
48     break;
49   case "Fundamentals of JavaScript":
50     console.log("You selected Fundamentals of JavaScript course");
51     break;
52   case "Problem Solving":
53     console.log("You selected Problem Solving program");
54     break;
55   default:
56     console.log("This is not a valid option");
57 }

```

```

C:\Users\FAMILIAR\OneDrive\Documentos\Fundamentals of JavaScript - CPAN 113 - Sem1\workspace\lab1> node lab1.js
Gina Paola Diaz
52
n1026255441
95.5
Fundamentals of JavaScript
true
90
[ 90, 95, 88, 92 ]
Alejandra Arteaga Diaz
19
CPAN 113
147.5
43.5
104
1.8365384615384615
false
false
false
true
true
greater than 18
You selected Fundamentals of JavaScript course

```

```

greater than 18
This is not a valid option

```

If we select a program that is not listed.