

Ejercicio. La búsqueda de código en internet es habitual entre programadores, dada la amplitud de un lenguaje de programación. En este ejercicio vamos a buscar en internet documentación de javascript relativa a cadenas.

Busca para cada una de las siguientes funciones, que hacen y cómo funcionan. Pon un ejemplo para cada una.

1.Split()

Con este método podemos transformar un String en un Array pasándole por parámetro el delimitador que queremos que los separe.



The screenshot shows an IDE with a project structure on the left and a code editor in the center. The project structure includes a folder named 'EntornosCliente' containing a file 'UD2.js'. The code editor shows the following JavaScript code:

```
1 //Ejemplos de metodos en JavaScript
2 //Split()
3 let texto:string = "Angela,Maria,Ana,Karen";
4 let nombre:string[] = texto.split( separator: ",");
5 console.log(nombre);
6
```

Below the code editor, the 'Run' tab is active, showing the command executed: `/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js`. The output in the console is:

```
[ 'Angela', 'Maria', 'Ana', 'Karen' ]
```

A red arrow points from the text 'El string texto pasa a ser el array que se muestra en la consola inferior' to the output array in the console.

2.ToLowerCase()

Con este método se convierten todos los caracteres de un String a minúsculas.



The screenshot shows an IDE with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project structure with a file named `UD2.js` selected. The code editor displays the following JavaScript code:

```
1 //Ejemplos de metodos en JavaScript
2 //Split()
3 let texto :string = "Angela,Maria,Ana,Karen";
4 let nombre :string[] = texto.split( separator: ",");
5 //console.log(nombre);
6 //toLowerCase()
7 let minuscula :string =texto.toLowerCase();
8 console.log(minuscula);
```

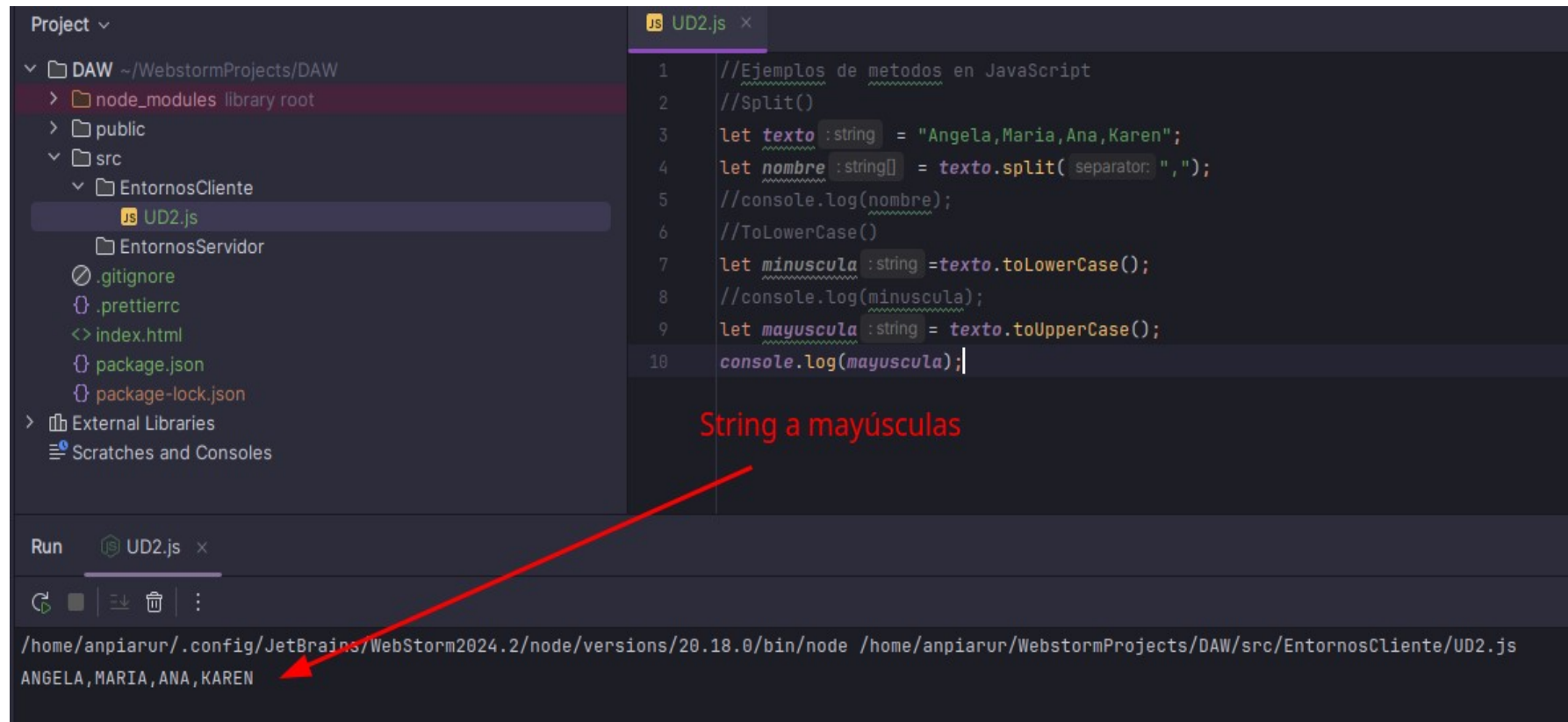
Below the code editor, there is a red text annotation: "El string pasa a minúsculas". A red arrow points from this text to the output in the terminal.

The terminal shows the command executed and its output:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js
angela,maria,ana,karen
```

2.ToUpperCase()

Con este método se convierten todos los caracteres de un String a mayúsculas.



The screenshot shows an IDE with a project structure on the left and a code editor on the right. The project structure includes a folder named 'EntornosCliente' containing a file 'UD2.js'. The code editor displays the following JavaScript code:

```
1 //Ejemplos de metodos en JavaScript
2 //Split()
3 let texto:string = "Angela,Maria,Ana,Karen";
4 let nombre:string[] = texto.split( separator: ",");
5 //console.log(nombre);
6 //toLowerCase()
7 let minuscula:string =texto.toLowerCase();
8 //console.log(minuscula);
9 let mayuscula:string = texto.toUpperCase();
10 console.log(mayuscula);
```

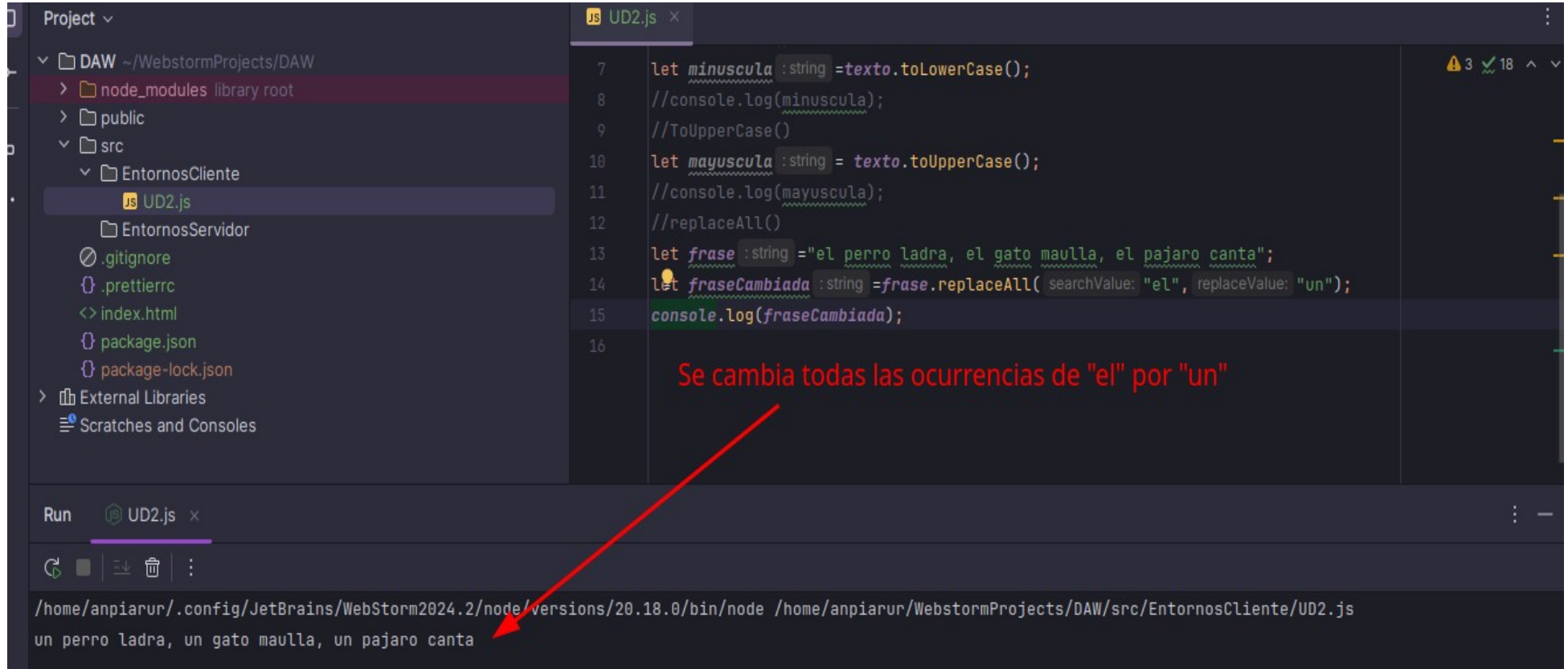
Below the code editor, the 'Run' tab shows the output of the script:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js
ANGELA,MARIA,ANA,KAREN
```

A red arrow points from the text 'String a mayúsculas' to the output 'ANGELA,MARIA,ANA,KAREN' in the console.

4.replaceAll()

Cambia todas las ocurrencias de un valor especifico en un String.



5.replace()

Reemplaza solo la primera ocurrencia que encuentre en el String.

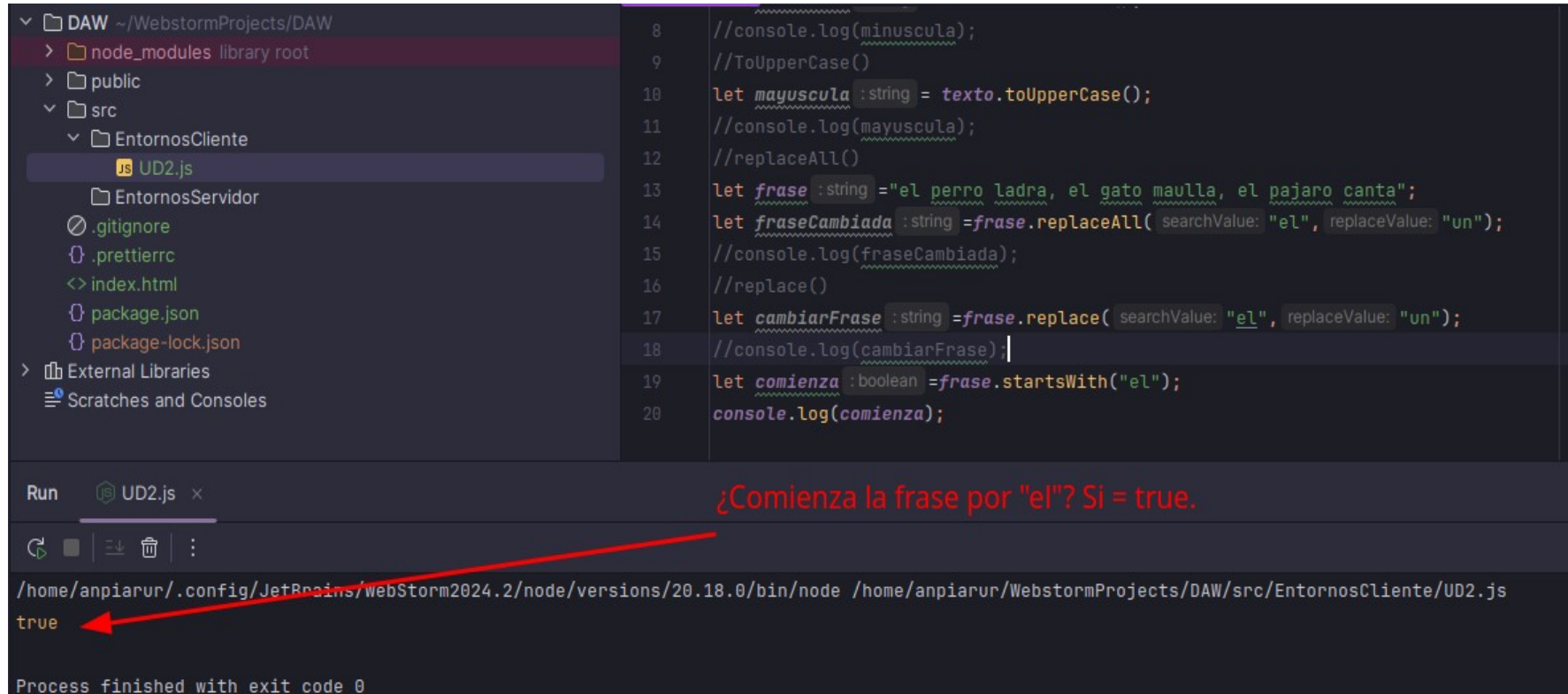
```
7 let minuscula :string =texto.toLowerCase();
8 //console.log(minuscula);
9 //ToUpperCase()
10 let mayuscula :string = texto.toUpperCase();
11 //console.log(mayuscula);
12 //replaceAll()
13 let frase :string ="el perro ladra, el gato maulla, el pajaro canta";
14 let fraseCambiada :string =frase.replaceAll( searchValue: "el", replaceValue: "un");
15 //console.log(fraseCambiada);
16 //replace()
17 let cambiarFrase :string =frase.replace( searchValue: "el", replaceValue: "un");
18 console.log(cambiarFrase);
```

Solo cambia el primer "el" que encuentra por "un".
Queda el resto sin reemplazar.

/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js
un perro ladra, el gato maulla, el pajaro canta

6. startsWith()

Verifica si un String comienza con un valor especificado.



The screenshot shows an IDE with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project structure with folders like 'node_modules', 'public', 'src', and 'EntornosServidor'. The code editor displays JavaScript code that uses `toUpperCase()`, `replaceAll()`, and `replace()` methods, and then checks if a string starts with 'el' using `startsWith()`. The terminal shows the command to run the file and the output `true`, which is highlighted by a red arrow. A red text annotation above the arrow asks '¿Comienza la frase por "el"? Si = true.'

```
8 //console.log(minuscula);
9 //ToUpperCase()
10 let mayuscula :string = texto.toUpperCase();
11 //console.log(mayuscula);
12 //replaceAll()
13 let frase :string ="el perro ladra, el gato maulla, el pajaro canta";
14 let fraseCambiada :string =frase.replaceAll( searchValue: "el", replaceValue: "un");
15 //console.log(fraseCambiada);
16 //replace()
17 let cambiarFrase :string =frase.replace( searchValue: "el", replaceValue: "un");
18 //console.log(cambiarFrase);
19 let comienza :boolean =frase.startsWith("el");
20 console.log(comienza);
```

Run UD2.js x

¿Comienza la frase por "el"? Si = true.

/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js

true

Process finished with exit code 0

7.endsWith()

Verifica si un String termina con un valor especificado.



The screenshot shows an IDE with a file explorer on the left, a code editor in the center, and a run console at the bottom. The file explorer shows a project named 'DAW' with a file 'UD2.js' selected. The code editor displays the following JavaScript code:

```
13 let frase :string ="el perro ladra, el gato maulla, el pajaro canta";
14 let fraseCambiada :string =frase.replaceAll( searchValue: "eL", replaceValue: "un");
15 //console.log(fraseCambiada);
16 //replace()
17 let cambiarFrase :string =frase.replace( searchValue: "eL", replaceValue: "un");
18 //console.log(cambiarFrase);
19 //starWith()
20 let comienza :boolean =frase.startsWith("eL");
21 //console.log(comienza);
22 //endsWith()
23 let termina :boolean =frase.endsWith(".");
24 console.log(termina);
```

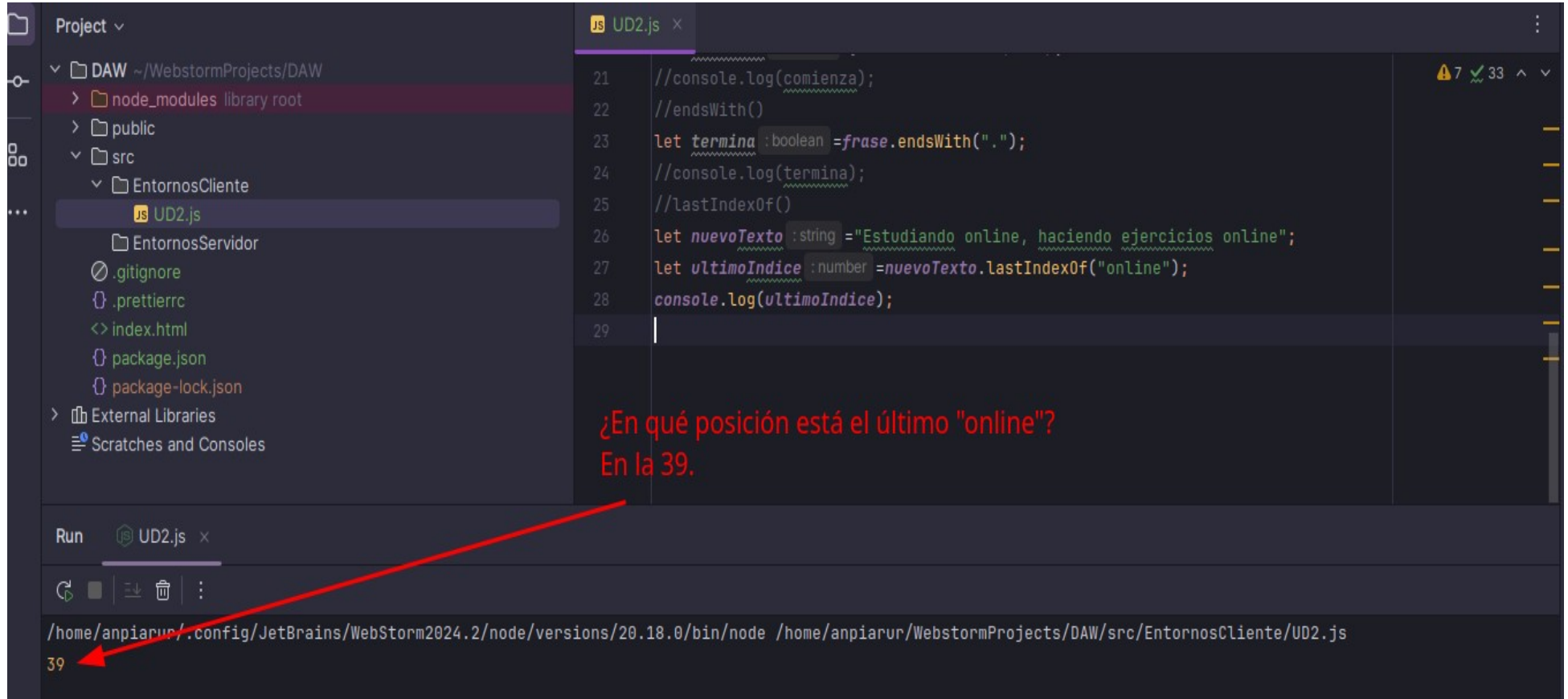
The run console at the bottom shows the command: `/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js`. The output is `false`. A red arrow points from the text '¿Termina la frase con un punto? No = false.' to the output 'false'.

¿Termina la frase con un punto? No = false.

false

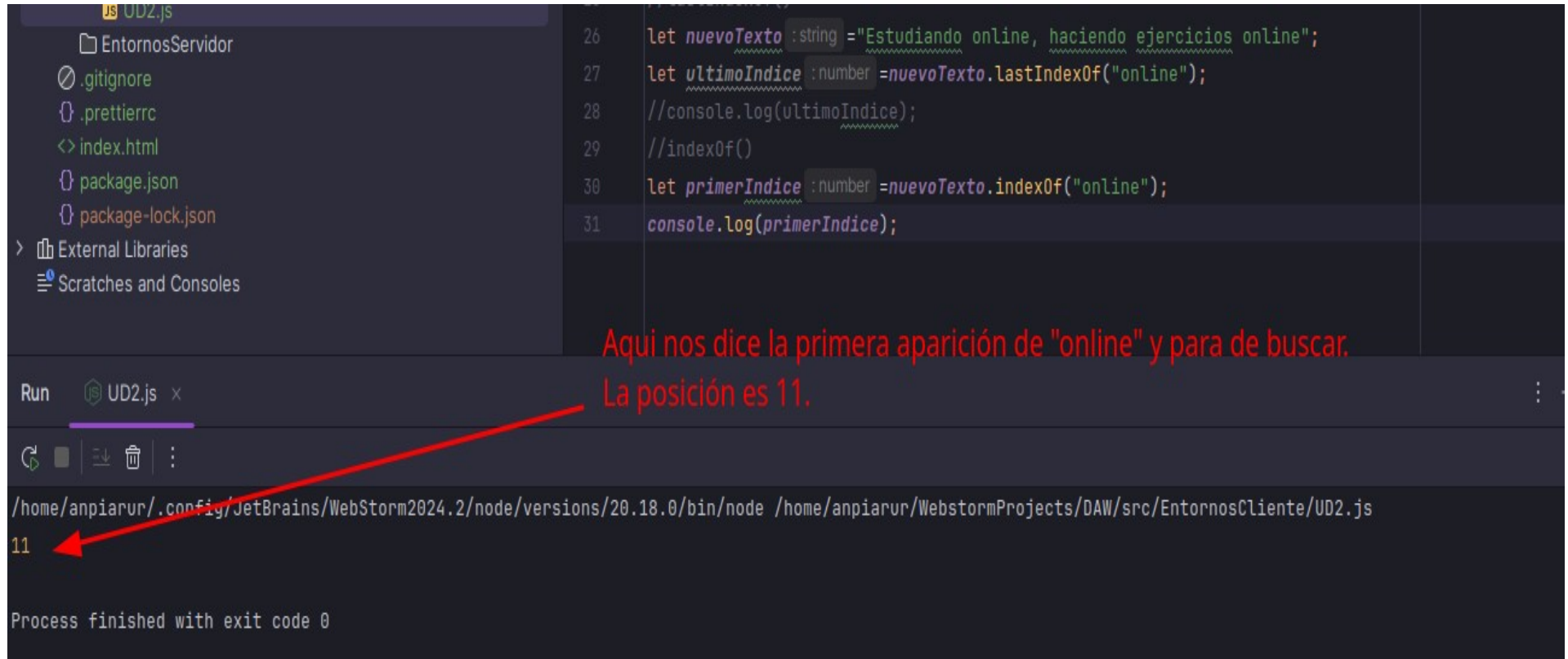
8. lastIndexOf()

Devuelve el índice de la última aparición de un valor en un String.



9. indexOf()

Devuelve el índice de la primera aparición de un valor en un String, da igual si aparecen mas veces.



The screenshot shows a code editor with a file named `UD2.js` containing the following JavaScript code:

```
26 let nuevoTexto :string ="Estudiando online, haciendo ejercicios online";
27 let ultimoIndice :number =nuevoTexto.lastIndexOf("online");
28 //console.log(ultimoIndice);
29 //indexOf()
30 let primerIndice :number =nuevoTexto.indexOf("online");
31 console.log(primerIndice);
```

Below the code editor, the Run and Debug console is visible. It shows the command executed:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js
```

The output of the command is `11`, which is highlighted in yellow. A red arrow points from the text "La posición es 11." to this output. Below the output, it says "Process finished with exit code 0".

Aquí nos dice la primera aparición de "online" y para de buscar.
La posición es 11.

10. substring()

Extrae una parte de un String entre dos índices que especificamos.

The screenshot shows a code editor with the following JavaScript code in `UD2.js`:

```
23 let termina :boolean =frase.endsWith(".");
24 //console.log(termina);
25 //lastIndexOf()
26 let nuevoTexto :string ="Estudiando online, haciendo ejercicios online";
27 let ultimoIndice :number =nuevoTexto.lastIndexOf("online");
28 //console.log(ultimoIndice);
29 //indexOf()
30 let primerIndice :number =nuevoTexto.indexOf("online");
31 //console.log(primerIndice);
32 //substring()
33 let dividiendoFrase :string =frase.substring(0,8);
34 console.log(dividiendoFrase);
```

Below the code, there is a red arrow pointing from the text "Desde el 0 hasta el 8 , que corresponde con 'el perro'" to the output "el perro" in the console.

Run UD2.js x

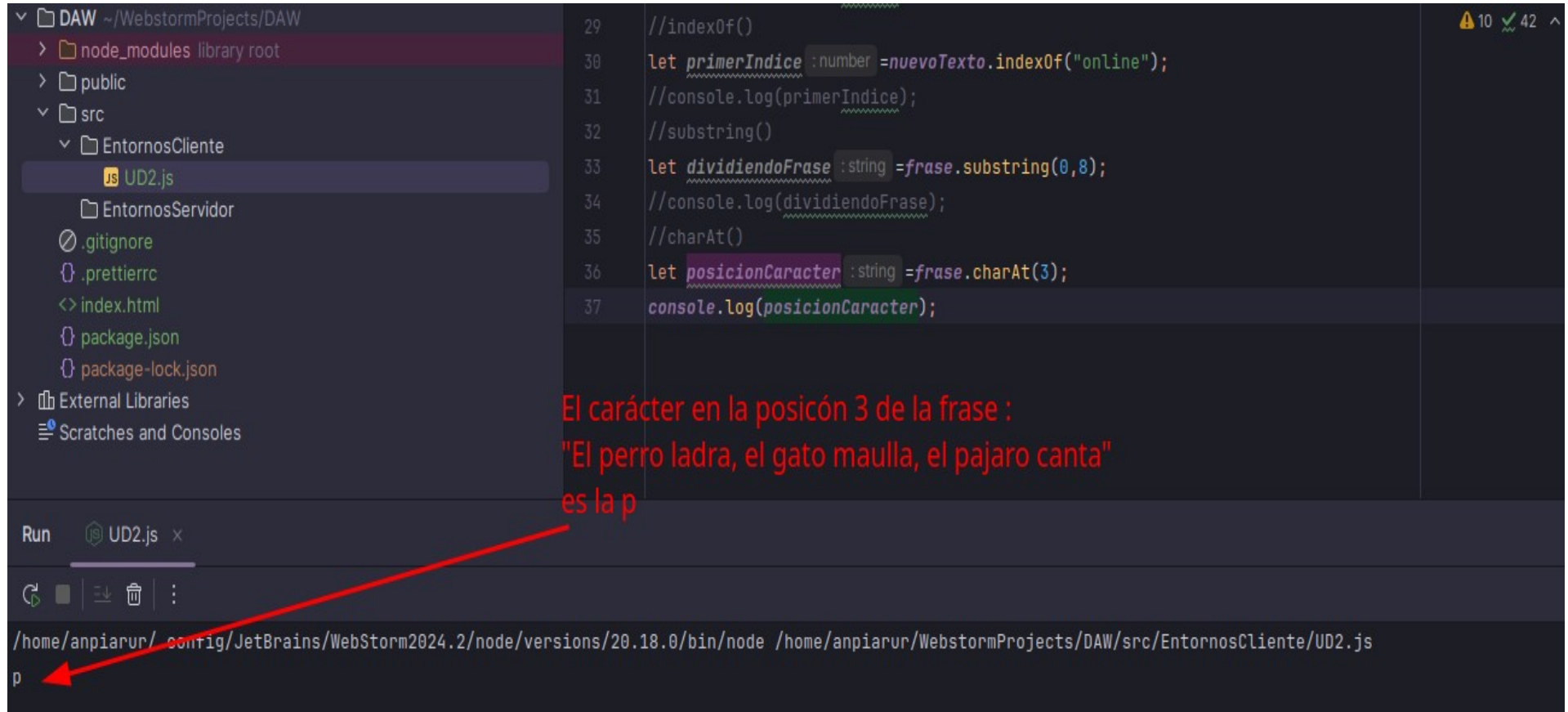
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js

el perro

Separa la frase : "el perro ladra, el gato maulla, el pajaro canta"
Desde el 0 hasta el 8 , que corresponde con "el perro"

11. charAt()

Devuelve el carácter en la posición especificada de un String.



The screenshot shows an IDE with a project structure on the left and a code editor in the center. The project structure includes a folder named 'EntornosCliente' containing a file 'UD2.js'. The code editor displays the following JavaScript code:

```
29 //indexOf()  
30 let primerIndice :number =nuevoTexto.indexOf("online");  
31 //console.log(primerIndice);  
32 //substring()  
33 let dividiendoFrase :string =frase.substring(0,8);  
34 //console.log(dividiendoFrase);  
35 //charAt()  
36 let posicionCaracter :string =frase.charAt(3);  
37 console.log(posicionCaracter);
```

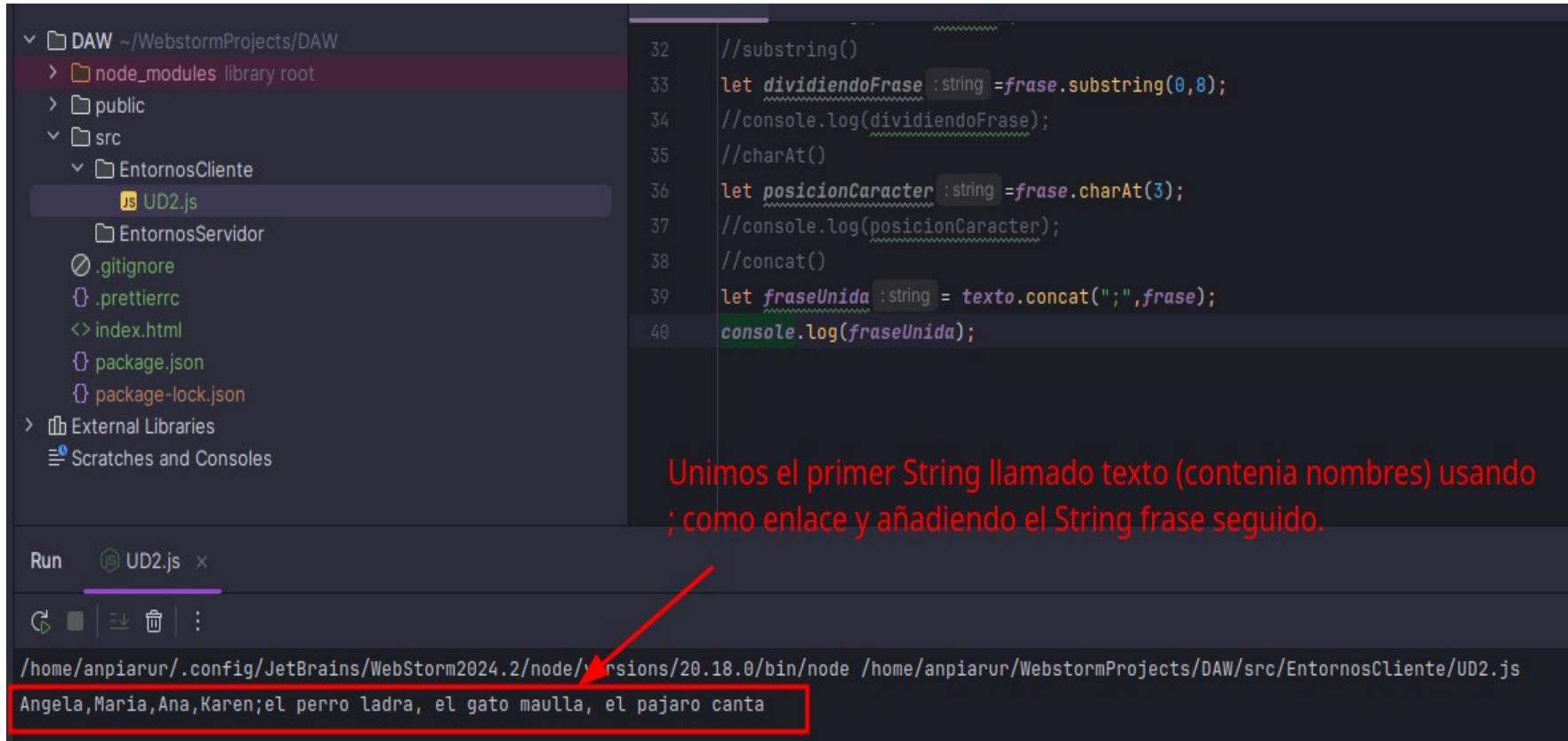
Below the code editor, the 'Run' tab is active, showing the execution output for 'UD2.js'. The output is:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js  
p
```

A red arrow points from the text 'El carácter en la posición 3 de la frase : "El perro ladra, el gato maulla, el pajar cant" es la p' to the output 'p'.

12. concat()

Junta dos o más String.



The screenshot shows a code editor with a file explorer on the left and a console at the bottom. The file explorer shows a project structure with a file named `UD2.js` selected. The code editor displays the following JavaScript code:

```
32 //substring()
33 let dividiendoFrase :string =frase.substring(0,8);
34 //console.log(dividiendoFrase);
35 //charAt()
36 let posicionCaracter :string =frase.charAt(3);
37 //console.log(posicionCaracter);
38 //concat()
39 let fraseUnida :string = texto.concat(";",frase);
40 console.log(fraseUnida);
```

A red arrow points from the `concat()` function in the code to the console output. The console shows the command to run `UD2.js` and the resulting output:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/UD2.js
Angela,Maria,Ana,Karen;el perro ladra, el gato maulla, el pajaros canta
```

The output string is highlighted with a red box.

13.length
Devuelve la longitud de un String.

The screenshot shows an IDE with a project structure on the left and a code editor on the right. The project structure includes a folder 'EntornosCliente' containing a file 'UD2.js'. The code editor shows the following JavaScript code:

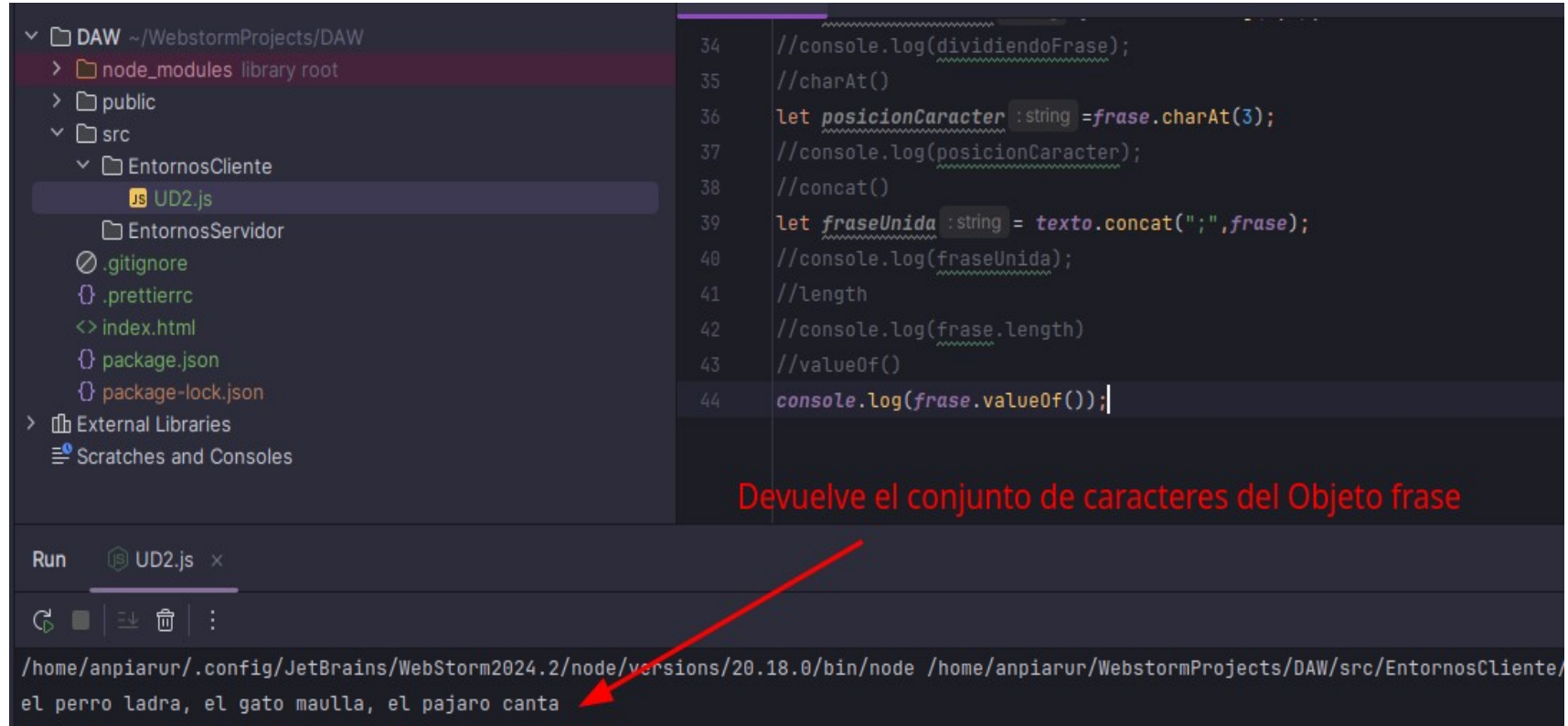
```
34 //console.log(dividiendoFrase);
35 //charAt()
36 let posicionCaracter :string =frase.charAt(3);
37 //console.log(posicionCaracter);
38 //concat()
39 let fraseUnida :string = texto.concat(";",frase);
40 //console.log(fraseUnida);
41 //length
42 console.log(frase.length);
```

Below the code editor, there is a red text annotation: "¿Longitud de la frase?" with the number "47" below it. A red arrow points from this annotation to the output "47" in the console. The console output shows the command path and the result:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosClie
47
```


14. valueOf()

Devuelve el valor primitivo de un objeto de String.



The screenshot shows an IDE with a file explorer on the left, a code editor in the center, and a console at the bottom. The file explorer shows a project structure with a file named `UD2.js` selected. The code editor displays the following JavaScript code:

```
34 //console.log(dividiendoFrase);
35 //charAt()
36 let posicionCaracter :string =frase.charAt(3);
37 //console.log(posicionCaracter);
38 //concat()
39 let fraseUnida :string = texto.concat(";",frase);
40 //console.log(fraseUnida);
41 //length
42 //console.log(frase.length)
43 //valueOf()
44 console.log(frase.valueOf());
```

Below the code editor, the console output shows the result of the `console.log` statement:

```
/home/anpiarur/.config/JetBrains/WebStorm2024.2/node/versions/20.18.0/bin/node /home/anpiarur/WebstormProjects/DAW/src/EntornosCliente/
el perro ladra, el gato maulla, el pajaro canta
```

A red arrow points from the `console.log(frase.valueOf());` line in the code editor to the console output, indicating that the output is the primitive value of the `frase` object.

Devuelve el conjunto de caracteres del Objeto frase