Slice method

1.**i/p:** var text='JavaScript is awesome';

o/p: "JavaScript"

```
//Ans:
 var text='JavaScript is awesome';

 console.log(text.slice(0,10))  //output-- "Javascript"
(or)using split also
 console.log(text.split(" ")[0])  //output-- "Javascript"
```

Explanation:

var text = "Javascript is awesome";

Here we are declaring the variable with a string containing sentence in single string as "Javascript is awesome"

console.log(text.slice(0, 10)); // output: "Javascript"

Here the `slice` method is used to extract the required portion of the string. It mainly takes two arguments: the starting index (0) and the ending index (10) or single argument that is the starting index which logs the characters from the given index number. So here it extracts characters from index 0 up to, but it will not include index 10. And gives the output as "Javascript"

2..**i/p:** var sentence='I Love Learning Javascript';

o/p: "Learning"

```
//Ans:
 var sentence='I Love Learning Javascript';

 console.log(sentence.slice(7,15))  //output-- "Learning"

 //using split
 console.log(sentence.split(" ")[2])  //output-- "Learning"
```

Explanation:

var sentence = "I Love Learning JavaScript";

Here we are declaring the variable with a string containing sentence in single string as "I Love Learning JavaScript"

console.log(sentence.slice(7, 15)); // output: "Learning"

Here the `slice` method is used to extract the required portion of the string. It mainly takes two arguments: the starting index (7) and the ending index (15) or single argument that is the starting index which logs the characters from the given index number. So here it extracts characters from index 7 up to, but it will not include index 17. And gives the output as "Learning"

3. Using negative index values

i/p: var text='Frontend Development';

o/p: "Development"

```
//Ans:
 var text='Frontend Development';

 console.log(text.slice(-11))  //output -- Development
//  using split
 console.log(text.split(" ")[1]) //output -- Development
```

Explanation:

var text = "Frontend Development";

Here we are declaring the variable with a string containing sentence "Frontend Development"

console.log(text.slice(-11)); // output: "Development"

`slice` method is used to extract the required portion of the string, the `slice` method can take a negative index, which counts from the end of the string. Here, `-11` means to start slicing from the 11th character from the end. So we get the output as "Development".

join method

1.i/p: var fruits=['Apple','Banana','Orange'];

o/p: "Apple, Banana, Orange"

```
//Ans:
 var fruits=['Apple','Banana','Orange'];

 console.log(fruits.join(", "))  //ouput---"Apple, Banana, Orange"
```

Explanation:

var arr = ['Apple', 'Banana', 'Orange'];

Here we are declaring the variable with an array containing three strings

console.log(arr.join("-")); // output: "Apple-Banana-Orange"

Here the `join` method combines all elements of the array into a single string,where each element separated by the specified separator, here we using hyphen to separate the string to get the output as –"Apple-Banana-Orange"

2.i/p: var numbers=[1,2,3,4,5];

o/p: "1-2-3-4-5"

```
//Ans:
 var numbers=[1,2,3,4,5];

 console.log(numbers.join("-")) //output---" 1-2-3-4-5"
```

Explanation:

var numbers=[1,2,3,4,5];

Here we are declaring the variable with an array containing 5 numbers

console.log(numbers.join("-")); //output-- "1-2-3-4-5"

Here the `join` method combines all elements of the array into a single string,where each element separated by the specified separator, here we using hyphen to separate the string to get the output as –"1-2-3-4-5"

3. i/p: var chars='H','e','l','l','o'd;

o/p: "Hello"

```
//Ans:
 var chars= ['H','e','l','l','o'];

 console.log(chars.join(""))
```

Explanation:

var chars = ['H', 'e', 'l', 'l', 'o'];

Here we are declaring the variable with an array containing the individual characters of the word "Hello".

console.log(chars.join("")); // output: "Hello"

Here the `join` method combines all elements of the array into a single string.

Since we're passing an empty string (`""`) as the separator, the characters are concatenated without any spaces or additional characters in between. And we get the output as — "Hello"

Split method

1. i/p: var date='2024-10-21';

o/p: ['2024', '10', '21']

```
//Ans:
 var date='2024-10-21';
 console.log(date.split("-")) //output---[ '2024', '10', '21' ]
```

Explanation:

var date = "2024-10-21";

Here we are declaring the variable with a string containing the date in the format "**YYYY-MM-DD**" as **"2024-10-21".**

console.log(date.split("-")); // output: ['2024', '10', '21']

Here the **`split`** method divides the string into an array of substrings based on the specified separator, where as in this case we have used hyphen (`"-"`) as there the numbers are divided by hyphen in the input **"2024-10-21"** so we have used hyphen (`"-"`) and we get output as **['2024', '10', '21'].**

2.i/p: var text='I Love JavaScript programming';

o/p: ['I', 'Love']

```
//Ans:
 var text='I Love JavaScript programming';
 console.log(text.split(" ",2))                  //output--- [ 'I', 'Love' ]
//or
 console.log(text.split(" ").splice(0,2))         //output--- [ 'I', 'Love' ]
//or
 var x = text.split(" ");
 var y = [x[0], x[1]];

 console.log(y)                                  //output--- [ 'I', 'Love' ]
```

Explanation:

var text = "I Love JavaScript programming";

Here we are declaring the variable with a string containing sentence "Frontend Development"

var x = text.split(" ");

Here the `split` method divides the string into an array of words using space (" ") as the separator. The result that stored in `x` will be: ['I', 'Love', 'JavaScript', 'programming']

var y = x.slice(0, 2);

Here the `slice` method extracts elements from the array starting from index 0 up to, but not including, index 2. This means it will get the first two elements as ['I', 'Love']

console.log(y); // output: ['I', 'Love']

And when log y the value which the y variable stored (**['I', 'Love']**) will give the output.

3. i/p: var ur l= "https://www.example.com/path/page.html";

o/p:['https:', '', 'www.example.com', 'path', 'page.html']

```
//Ans:
 var url="https://www.example.com/path/page.html";

 console.log(url.split("/"))
 //output---[ 'https:', '', 'www.example.com', 'path', 'page.html' ]
```

Explanation:

var url = "https://www.example.com/path/page.html";

Here we are declaring the variable with a string containing URL: "https://www.example.com/path/page.html"

console.log(url.split("/"));

// output: ['https:', '', 'www.example.com', 'path', 'page.html']

Here the `split` method divides the string into an array of substrings based on the specified separator, whereas in this case we have used forward slash (" / ") as the words or text in the url are divided by forward slash. So by using this separator we get the output as ['https:', '', 'www.example.com', 'path', 'page.html']