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Async-Await

Javascript

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JS
Async-Await

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•JavaScript is everywhere. Millions of webpages are built on JS.

•A few examples will help you understand the JavaScript Async await Keywords in this post.

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Async-Await

We use the async keyword with a function to represent that the function is an asynchronous function. The async function returns a promise.

The syntax of async function is:

```
async function name(parameter1, parameter2, ...paramaterN) {
// statements
}
```

Here,

name - name of the function.

parameters - parameters that are passed to the function.

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Async Function

```
// async function example

async function f() {
  console.log('Async function.');
  return Promise.resolve(1);
}

f();
```

Output

```
Async function.
```

In the above program, the async keyword is used before the function to represent that the function is asynchronous.

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Async Function

**Since this function returns a promise,
We can also use the chaining method 'then()' like this:**

```
async function f() {
  console.log('Async function.');
  return Promise.resolve(1);
}

f().then(function(result) {
  console.log(result)
});
```

Output

```
Async function
1
```

In the above program, the f() function is resolved and the then() method gets executed.

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JavaScript await Keyword

The await keyword is used inside the async function to wait for the asynchronous operation.

The syntax to use await is:

```
let result = await promise;
```

The use of await pauses the async function until the promise returns a result (resolve or reject) value.
For example,

```
// a promise
let promise = new Promise(function (resolve, reject) {
   setTimeout(function () {
   resolve('Promise resolved')}, 4000);
});

// async function
async function asyncFunc() {

   // wait until the promise resolves
   let result = await promise;

   console.log(result);
   console.log('hello');
}

// calling the async function
asyncFunc();
```

Output

```
Promise resolved
hello
```

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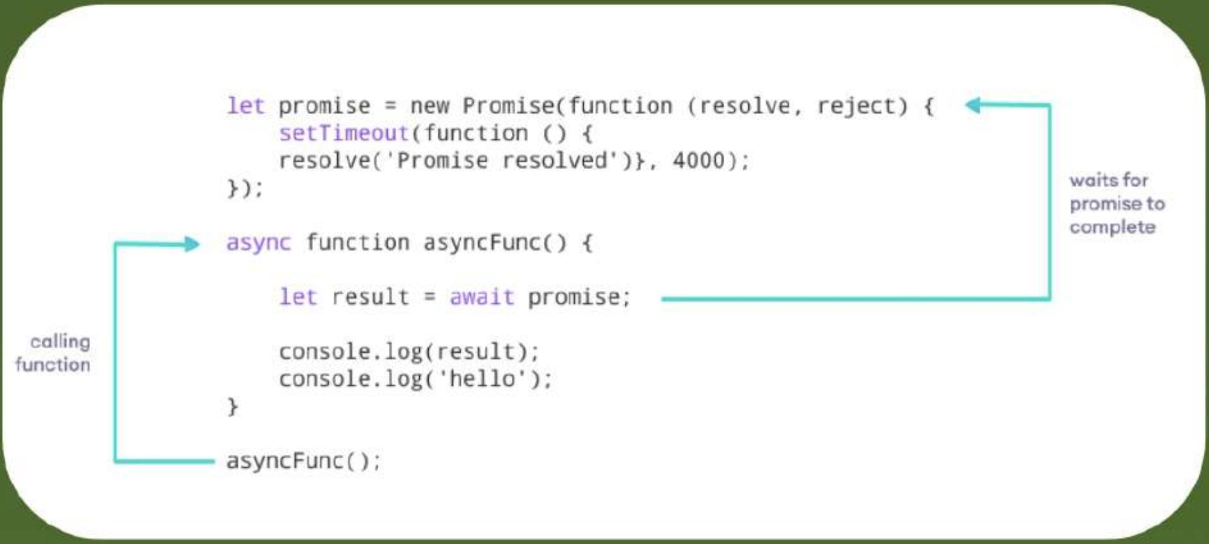
Explanation :

• In the above program, a Promise object is created and it gets resolved after 4000 milliseconds.

•Here, the asyncFunc() function is written using the async function.

• Hence, hello is displayed only after promise value is available to the result variable.

•The await keyword waits for the promise to be complete.



```
let promise = new Promise(function (resolve, reject) {
    setTimeout(function () {
    resolve('Promise resolved')}, 4000);
});

async function asyncFunc() {

    let result = await promise;

    console.log(result);
    console.log('hello');
}

asyncFunc();
```

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Benefits of Using async Function

- The code is more readable than using a callback or a promise.
- Error handling is simpler.
- Debugging is easier.

Note:

These two keywords async/await were introduced in the newer version of JavaScript (ES8). Some older browsers may not support the use of async/await.

Thank you!

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