

Frontend Developer

JS

Async/Await

In Javascript

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SWIPE-->

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Async

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

syntax

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

Here,

name - name of the function

parameters - parameters that are passed to the function

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Example:

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```
// async function example

const getData = async() => {
  var data = "Hello World";
  return data;
}

getData().then(data => console.log(data));
//Hello World
```

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Await Keyword

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

syntax

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

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

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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();
```

Error Handling

While using the async function, you write the code in a synchronous manner. And you can also use the `catch()` method to catch the error. For example,

```
asyncFunc().catch(  
  // catch error and do something  
)
```

The other way you can handle an error is by using `try/catch` block. For example,

Example:

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

// async function
async function asyncFunc() {
  try {
    // wait until the promise resolves
    let result = await promise;

    console.log(result);
  }
  catch(error) {
    console.log(error);
  }
}

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


Benefits of Using async Function

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