

6

ASYNC & AWAIT

JS

WHAT TO EXPECT



- 1 Introduction
- 2 Understanding Promises
- 3 Async & Await
- 4 Everything Together
- 5 Error Handling
- 6 Summary

Asynchronous functions



Understanding Promises

- Promises are objects representing the eventual completion or failure of an asynchronous operation.
- They have states: pending, fulfilled, or rejected.



Understanding Promises

```
const myPromise = new Promise((resolve, reject) => {
  let condition;

  if(condition is met) {
    resolve('Promise is resolved successfully.');
  } else {
    reject('Promise is rejected');
  }
});
```

Async

- Async functions are declared using the `async` keyword before the function declaration.
- They allow us to write asynchronous code in a more synchronous style.
- Async functions always return a Promise.

Await

"The `await` keyword can only be used inside `async` functions."

"It pauses execution until the Promise is settled (resolved or rejected)."

Everything Together

```
async function asyncDemo() {  
  
  let promise = new Promise((resolve, reject) => {  
    setTimeout(() => resolve("done!"), 1000)  
  });  
  
  let result = await promise; // wait until the promise resolves (*)  
  
  return result // "done!"  
}
```

```
assignedVal = await asyncDemo()
```

Error Handling with Async & Await

- Error handling in async functions is done using try-catch blocks.
- You can use try to wrap the code that might throw an error, and catch to handle the error.
- Async functions automatically reject the Promise if an error occurs.

Error Handling with Async & Await

```
async function noUrl() {  
  
  try {  
    let response = await fetch('http://no-such-url');  
  } catch(err) {  
    return err; // TypeError: failed to fetch  
  }  
}
```

```
let result = await noUrl()
```

Summary

- Async and Await are features in JavaScript that simplify asynchronous code.
- Async functions allow us to write asynchronous code in a synchronous style.
- Await pauses execution until the Promise is settled.
- Error handling in async functions is done using try-catch blocks.



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See you in Next Video

