Promise and Async-Await in JS

Spoken Tutorial Project
https://spoken-tutorial.org
National Mission on Education through ICT
https://sakshat.ac.in

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Learning Objectives

▶ **Promise**

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▶ **Chaining in Promises**

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▶ **Async-Await**

System Specifications

This tutorial is recorded using:

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- **Ubuntu Linux OS version 18.04**

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- ▶ **Visual Studio Code version 1.45.0 (code editor)**

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- ▶ **Ubuntu Linux OS version 18.04**
- ▶ **Visual Studio Code version 1.45.0 (code editor)**
- ▶ **Firefox Web Browser**

Prerequisites

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► **You should be familiar with writing and executing** JS **files**

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▶ **If not, please go through the prerequisite tutorials on https://spoken-tutorial.org**

Code Files

► **The files used in this tutorial are available in the** `Code files` **link on this tutorial page**

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▶ **Make a copy and then use them for practicing**

Promise

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▶ **Represents the eventual completion (or failure) of an** `asynchronous operation` **and its resulting value**

Promise

A `Promise` **is always in one of these states:**

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▶ `pending`: **is the initial state, neither fulfilled nor rejected**

Promise

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  - **So, `.then()` gets executed**

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  ▶ **So,** `.then()` **gets executed**

▶ `rejected`: **indicates that the operation failed**

Promise

- `fulfilled`: **indicates that the operation was completed successfully**
  - **So,** `.then()` **gets executed**
- `rejected`: **indicates that the operation failed**
  - **So,** `.catch()` **gets executed**

Promise

▶ `pending`: **is the initial state, neither fulfilled nor rejected**

▶ `fulfilled`: **indicates that the operation was completed successfully**

▶ `rejected`: **indicates that the operation failed**

Async - Await

```
async keyword:
```

Async - Await

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- **instructs the interpreter that there's an** `asynchronous call` **happening inside the** `function`

`async keyword:`

- **instructs the interpreter that there's an** `asynchronous call` **happening inside the** `function`

- `async` **function always returns a** `Promise`

Async - Await

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▶ **tells the** interpreter **to wait for the** function **to return**

Async - Await

await keyword:

- **tells the** interpreter **to wait for the** function **to return**
- **Only after that the next instruction will be executed**

Summary

In this tutorial, we have learnt:

- ▶ **Promise**
- ▶ **Chaining in Promises**
- ▶ **Async-Await**

- **Open the file** `assignment.js` **which you have created earlier**
- **Clear the existing code**
- **Create a** `promise p`
- **And resolve the** `promise` **after 2 seconds**

Assignment

- Log, 'Promise is resolved!' **after the** promise **resolves**
- **Else,** log Error!
- **Open the file** MyPage.html **in a web browser**
- **Observe the output in the browser's console**

About Spoken Tutorial project

▶ **Watch the video available at
  https://spoken-tutorial.org
  /What_is_a_Spoken_Tutorial**

▶ **It summarises the Spoken Tutorial project**

▶ **If you do not have good bandwidth, you can
  download and watch it**

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▶ **Conducts workshops using spoken tutorials**

▶ **Gives certificates to those who pass an online test**

▶ **For more details, please write to contact@spoken-tutorial.org**

Answers for THIS Spoken Tutorial

- **Questions in THIS Spoken Tutorial?**
- **Visit https://forums.spoken-tutorial.org**
- **Choose the minute and second where you have the question**
- **Explain your question briefly**
- **The Spoken Tutorial project will ensure an answer**
- **You will have to register to ask questions**

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Thank you

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