

State the different features of Javascript? Explain any two in details.

Key features of java script:

Lightweight and Interpreted Language

Dynamic Typing

Object-Oriented Programming Support

Event-Driven Programming

Prototypal Inheritance

First-Class Functions

Asynchronous Programming with Promises and Async/Await

Client-Side Validation

Cross-Platform Compatibility

Async Programming:

Single threaded supports async operations using features like callback, promises and async/await

Promises: A promise represents a value that may be available now, in the future, or never. It allows you to attach callbacks for success (resolve) or failure (reject) conditions, which can help manage asynchronous operations cleanly.

Async/Await: This is a more modern approach to handle asynchronous code. async functions return promises, and await allows you to write asynchronous code as if it were synchronous, improving readability.

Prototypal Inheritance:

JavaScript uses prototypal inheritance, meaning objects can inherit properties and methods from other objects. Every JavaScript object has a prototype from which it can inherit methods, and it can serve as a prototype for other objects.

Explain with syntax the different types of comments supported in JS.

Single-Line Comments

Single-line comments are used for brief explanations or when commenting out a single line of code. They are created using two forward slashes (//). Everything following // on that line is treated as a comment.

Syntax:

```
// This is a single-line comment
```

```
let x = 5; // You can also place comments after code
```

Multi-Line Comments

Multi-line comments are used when you need to comment out multiple lines of code or add longer explanations. They start with /* and end with */. Everything between these symbols is treated as a comment.

Syntax:

```
/*
```

```
This is a multi-line comment.
```

```
It can span across multiple lines.
```

```
*/
```