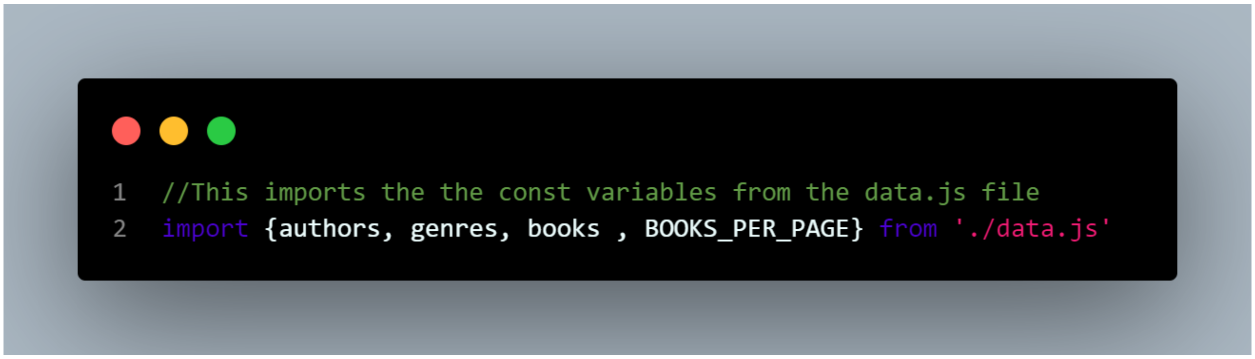
DWA_03.4 Knowledge Check_DWA3.1

1. Please show how you applied a Markdown File to a piece of your code.



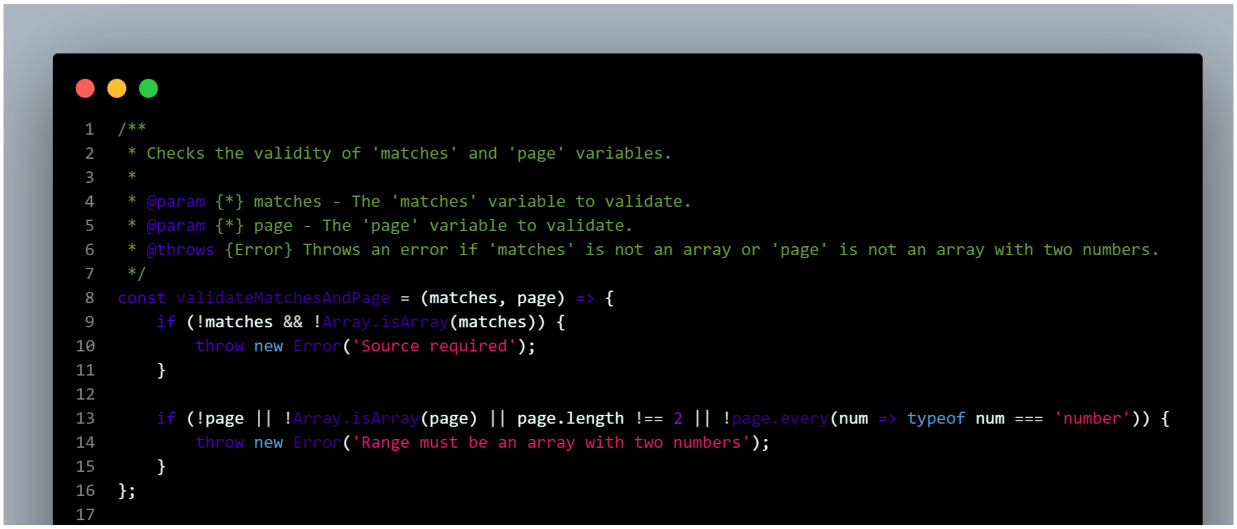
```
//This imports the the const variables from the data.js file
import {authors, genres, books , BOOKS_PER_PAGE} from './data.js'
```

~~~
## Importing Data

This code imports constants and variables from the data.js file to work with. It includes authors, genres, books, and the number of books per page.

```javascript
import { authors, genres, books, BOOKS_PER_PAGE } from './data.js'
~~~

2. Please show how you applied JS Doc Comments to a piece of your code.



```javascript
/**
 * Checks the validity of 'matches' and 'page' variables.
 *
 * @param {*} matches - The 'matches' variable to validate.
 * @param {*} page - The 'page' variable to validate.
 * @throws {Error} Throws an error if 'matches' is not an array or 'page' is not an array with two numbers.
 */
const validateMatchesAndPage = (matches, page) => {
    if (!matches && !Array.isArray(matches)) {
        throw new Error('Source required');
    }

    if (!page || !Array.isArray(page) || page.length !== 2 || !page.every(num => typeof num === 'number')) {
        throw new Error('Range must be an array with two numbers');
    }
};

```

I've added a JSDoc comment block to the validateMatchesAndPage function.
The @param tags describe the parameters matches and page.
The @throws tag specifies that an error will be thrown if the conditions are not met.

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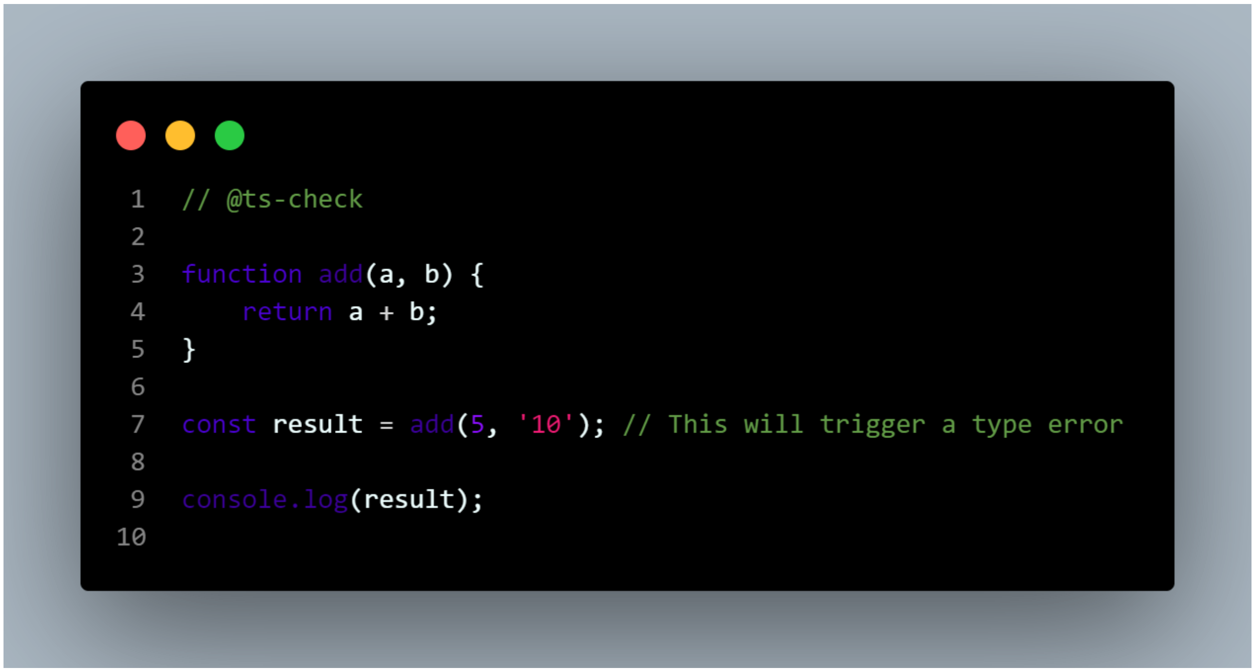
3. Please show how you applied the @ts-check annotation to a piece of your code.

I added the // @ts-check directive at the beginning of the file to enable TypeScript type checking. It will help me catch type-related errors during development.
When i added the // @ts-check to my javascript file form my IWA19 it threw multiple errors in the code so instead made an example of how i could use it , this example shows how im attempting to add a number and a string in the add(5, '10') call, which would cause a type error.



```javascript
// @ts-check

function add(a, b) {
    return a + b;
}

const result = add(5, '10'); // This will trigger a type error

console.log(result);

```

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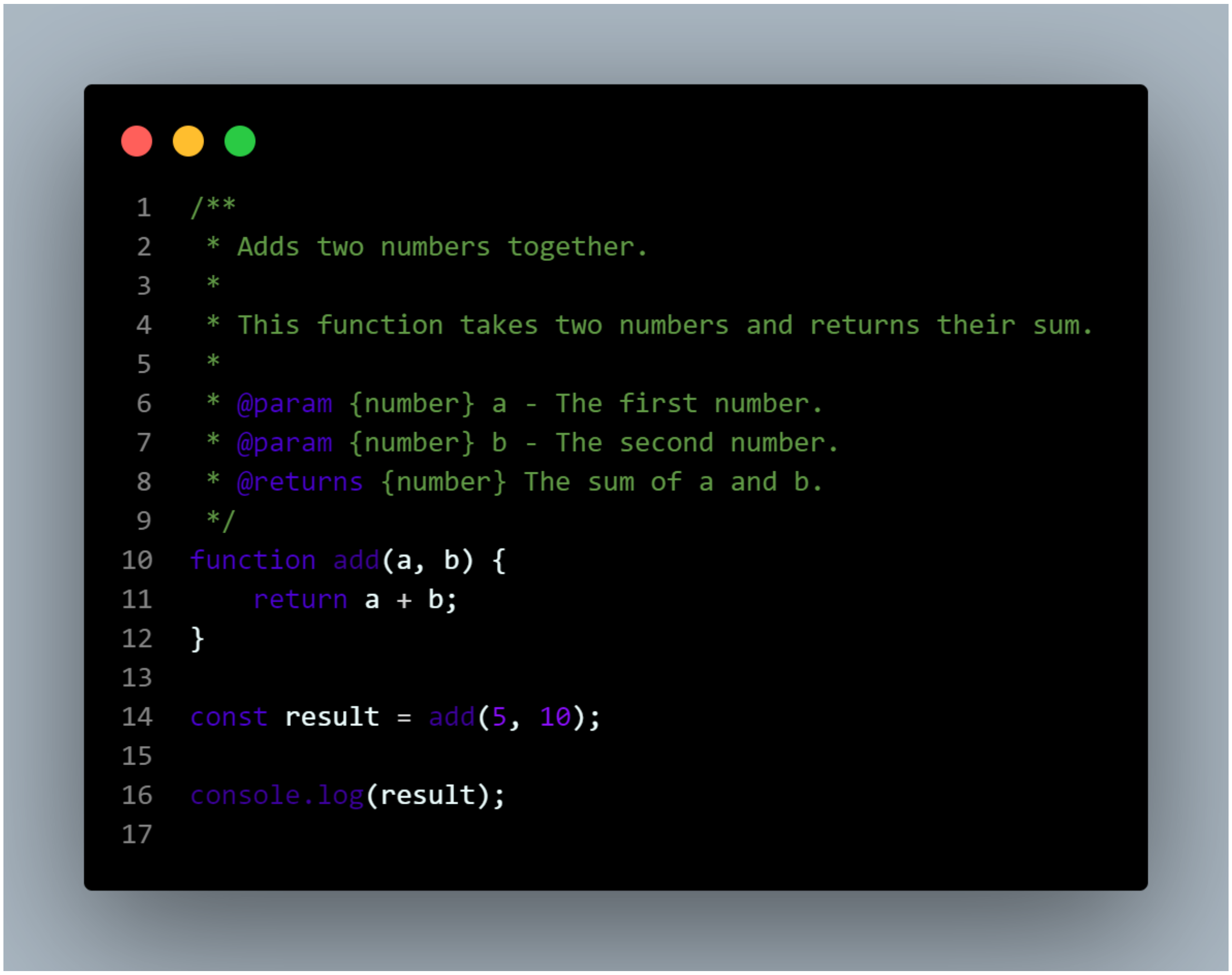
4. As a BONUS, please show how you applied any other concept covered in the 'Documentation' module.

In this example i applied proper JsDoc to a function



```javascript
/**
 * Adds two numbers together.
 *
 * This function takes two numbers and returns their sum.
 *
 * @param {number} a - The first number.
 * @param {number} b - The second number.
 * @returns {number} The sum of a and b.
 */
function add(a, b) {
    return a + b;
}

const result = add(5, 10);

console.log(result);
```