DWA_03.4 Knowledge Check_DWA3.1

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

```
# calculateArea Function
This function calculates the area of a rectangle based on the provided
width and height.
## Parameters
 `width` (number): The width of the rectangle.
 `height` (number, optional): The height of the rectangle. If not
provided, the function assumes the rectangle is a square.
## Returns
  `area` (number): The calculated area of the rectangle.
## Usage
```javascript
const width = 5;
const height = 10;
const area = calculateArea(width, height);
console.log(area); // Output: 50
const squareWidth = 7;
const squareArea = calculateArea(squareWidth);
console.log(squareArea); // Output: 49
```

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

```
/**
 * Calculates the sum of two numbers.
 *
 * @param {number} a - The first number.
 * @param {number} b - The second number.
 * @returns {number} The sum of the two numbers.
 */
function calculateSum(a, b) {
 return a + b;
}
```

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

```
// @ts-check

// (C) ACME Inc. 2010

// This is the date that a user created their account const date = '10/07/2014';

// Log the date to the console console.log(date);
```

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

This is a code where I applied JSDoc optional parameters.

```
/**
 * Calculates the area of a rectangle.
 *
 * @param {number} width - The width of the rectangle.
 * @param {number} [height] - The height of the rectangle (optional).
 * @returns {number} The calculated area of the rectangle.
 */
function calculateArea(width, height) {
 if (height === undefined) {
 // Handle the case when height is not provided
 return width * width;
 }
 return width * height;
}
```