1. Explain the difference between getElementById, getElementsByClassName and getElementsByTagName.

1. getElementById()

- **Purpose**: This method is used to select a single element by its unique ID attribute.
- **Return Value**: It returns the first element with the specified ID. If no element is found, it returns null.
- **Use Case**: When you want to select a single element using its unique id.

let element = document.getElementById('myId');

console.log(element);

2. getElementsByClassName()

- **Purpose**: This method is used to select elements by their class name.
- **Return Value**: It returns a live HTMLCollection of all elements with the specified class. If no elements are found, it returns an empty HTMLCollection.
- **Use Case**: When you want to select multiple elements with the same class.

let elements = document.getElementsByClassName('myClass');

console.log(elements);

3. getElementsByTagName()

- **Purpose**: This method is used to select **elements** by their **tag name** (e.g., div, p, span).

- **Return Value**: It returns a **live HTMLCollection** of all elements with the specified tag name. If no elements are found, it returns an empty HTMLCollection.
- **Use Case**: When you want to select all elements of a specific type (e.g., all <p> or all <div> tags).

```
let elements = document.getElementsByTagName('p');

console.log(elements);
```