**WEEK-7 REACT HO-9**

**1. Features of ES6**

* let and const for block-scoped variables.
* Arrow functions () => {}.
* Classes and Inheritance.
* Template literals: `Hello ${name}`
* Destructuring: const [a, b] = arr
* Spread/Rest operators: ...arr
* Default parameters: function(a=10) {}
* Modules (import / export)
* Promises
* Map & Set objects

**2. let in JavaScript**

* Block-scoped
* Not hoisted like var
* Cannot be redeclared in the same scope

**3. Difference Between var and let**

| **Feature** | **var** | **let** |
| --- | --- | --- |
| Scope | Function scoped | Block scoped |
| Hoisting | Yes | No (temporal dead zone) |
| Redeclaration | Allowed | Not allowed in same block |

**4. const in JavaScript**

* Block-scoped like let
* Must be assigned a value at declaration
* Cannot be reassigned (but objects/arrays inside can be mutated)

**5. ES6 Class Fundamentals**

class Player {

constructor(name, score) {

this.name = name;

this.score = score;

}

display() {

return `${this.name} scored ${this.score}`;

}

}

**6. ES6 Class Inheritance**

class Batsman extends Player {

constructor(name, score, strikeRate) {

super(name, score);

this.strikeRate = strikeRate;

}

}

**7. Arrow Functions**

* Shorthand for anonymous functions

const greet = name => `Hello ${name}`;

* Lexical this binding

**8. Set() and Map()**

* Set stores unique values
* Map stores key-value pairs

const mySet = new Set([1, 2, 2, 3]); // {1, 2, 3}

const myMap = new Map();

myMap.set('a', 100);

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