

## Report Day: 5.2

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### Task:

#### Introduction:

In JavaScript, **objects** are a fundamental building block used to store collections of data and more complex entities. Objects are key to writing organized, flexible, and scalable code. They allow developers to group related data and functions into one structure.

#### Objects:

An **object** is a collection of **key-value pairs** (also called **properties**). Each property consists of a key (also called a name) and a value.

```
1  let person = {  
2    name: "Ayesha",  
3    age: 21,  
4    isStudent: true  
5  };  
6
```

#### Accessing Object Properties

You can access object properties in two main ways:

##### 1. Dot Notation:

```
console.log(person.name); // Output: Ayesha
```

## 2. Bracket Notation:

```
1 console.log(person["age"]); // Output: 21
2
```

### Updating and Adding Properties:

person.age = 23;

### Deleting Properties:

```
delete person.isStudent;
```

### Object Methods:

An **object method** is a function stored as a property in an object. Methods define behavior for the object.

### JavaScript Objects are Mutable:

Objects are mutable: They are addressed by reference, not by value.

```
let person = {
  name: "Ayesha",
  greet: function() {
    return "Hello, " + this.name;
  }
};

console.log(person.greet()); // Output: Hello, Ayesha
```



### Conclusion:

JavaScript objects are powerful structures that allow you to store and manage data efficiently. Combined with object methods, they help represent both **data** and **behavior** in a clean, structured way. Mastery of objects is essential for writing effective, modern JavaScript code, especially in web applications and frameworks.