Question 1: What is an object in JavaScript? How are objects different from arrays?

Answer:
An object is a **collection of data in key–value pairs**.
It stores information in a structured way.

Example of an object:

let student = {

   name: "Anshu",

   age: 20,

   isStudent: true

};

Here,

- name = key
- "Anshu" = value

Example:

- Array → like a list
- Object → like a dictionary or details form

Question 2: Explain how to access and update object properties using dot notation and bracket notation.

Objects have **two ways** to read or change values:

1. **Dot Notation**

Access:

console.log(student.name);

Update:

student.age = 21;

2. Bracket Notation

Access:

```
console.log(student["name"]);
```

Update:

```
student["age"] = 22;
```

Why bracket notation is useful?

It is helpful when the key is stored in a variable or has spaces.

Example:

```
let key = "name";

console.log(student[key]);  // works
```