**Objects and its internal representation in JavaScript**

* Objects are data types in JavaScript. They are used to represent real-world entities, such as users, products, and orders.
* Objects are created using the {} curly braces. Inside the curly braces, you can specify the properties of the object. Properties are key-value pairs, where the key is a string and the value can be any JavaScript data type.

Example:-

const person = {

name: "bhuvan",

age: 23,

occupation: "full stack developer"

};

This object has three properties: name, age, and occupation. The name property has the value " bhuvan", the age property has the value 23, and the occupation property has the value "full stack developer".

Objects can also contain nested objects, you can create an object that contains other objects.

const product = {

name: "jeans",

price: 10,

category: {

name: "Clothing",

subcategories: ["Men's", "Women's", "Children's"]

}

};

This object has three properties: name, price, and category. The category property is another object, which contains the name and subcategories of the product category.

**Internal representation of objects in JavaScript:-**

* JavaScript objects function as hash tables.
* They store key-value pairs.
* Object creation results in the creation of a hash table in memory.
* The hash table stores the object's properties.
* When accessing a property, the engine searches the hash table using the key to retrieve the associated value.

const name = person.name;

The JavaScript engine will look up the name key in the hash table for the person object and return the value "bhuvan".

**Conclusion: -**

Objects are a powerful data type in JavaScript. They allow you to represent complex data in a structured and efficient way. Understanding the internal representation of objects in JavaScript can help you to write more efficient and effective code.