Javascript Objects

Javascript objects can be defined in the form of key-value pairs. Objects are a composite data-type. Javascript objects are similar to real life objects which have different attributes and properties. Objects can be defined as an unordered collection of data of different data-types and functions. The keys in objects point to data or functions which are called as properties and methods of an object.

```javascript
const object = {
    key1: "value1",
    key2: [1, 2, 3],
    key3: () => {
        console.log("I am a method")
    }
}
```

(A javascript object)

Properties:

Properties of an object are basically like javascript variables but they are attached to the object. Characteristics of an object are defined by the properties of the object. We can access the properties of an object in 3 ways. They are

1. object.key1;

2. object["key2'];

3. var key = "key3";

    Object[key];

We can define a new property by assigning an value to it. Eg: we can create a new object called dog and assign properties like legs, sound and food.
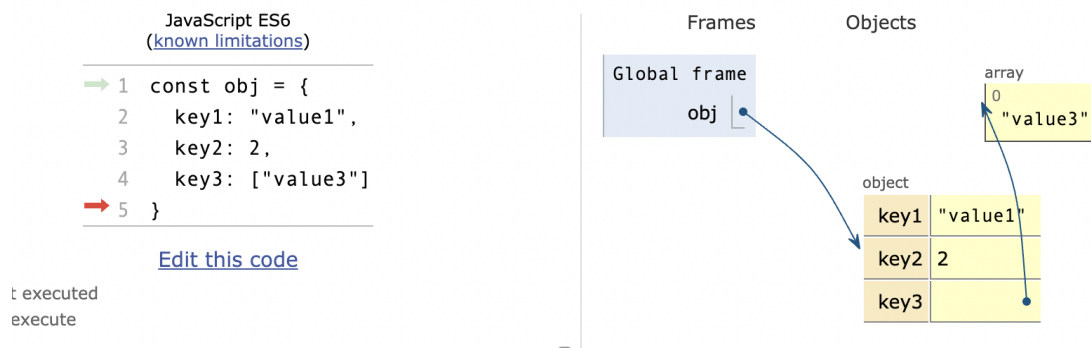
```javascript
const dog = {};
dog.legs = 4;
dog["sound"] = "bark";
dog.food = "dog food";
```

Methods:

Any function associated with an object is known as a method. Methods can also be defined in the same way properties are assigned but for the value instead of having a data it will have a function.

```
1   const dog = {
2       run: () => {
3           console.log("run");
4       }
5   };
```

Internal representation of Objects:

The above image shows the internal representation of an object. Objects are represented very similar to an array but instead of having a index to point the value we have keys that points the data.