

```
1 console.clear();
2
3 // 'userDetails' is an object that stores information about a user such as name, age and designation.
4
5 let userDetails = {
6
7   name: "Ajay Suneja",
8
9   age: 30,
10
11   designation: "Software Engineer"
12 };
13
14 // 'printDetails' is a normal function (not inside an object). It takes two parameters: 'state' and 'country'.
15
16 // Inside the function, 'this' refers to the object that will be defined later using call/apply/bind.
17
18 let printDetails = function (state, country) {
19
20   console.log(this.name + " " + state + " " + country);
21 };
22
23 // Another object similar to 'userDetails' but with different values.
24
25 let userDetails2 = {
26
27   name: "Anshika Gupta",
28
29   age: 25,
30
31   designation: "Software Engineer"
32 };
33
34 // .call() is used to invoke a function immediately. First argument → the object to be used as 'this'. Remaining arguments →
35 // passed normally to the function.
36
37 // Here, 'this' = userDetails, state = "Delhi" and country = "India"
```

```
38 printDetails.call(userDetails, "Delhi", "India"); // Output: Ajay Suneja Delhi India
39
40 // Same function, but now 'this' refers to userDetails2.
41
42 printDetails.call(userDetails2, "Delhi", "India"); // Output: Anshika Gupta Delhi India
43
44 // .apply() is similar to .call(). Difference: parameters are passed as an ARRAY.
45
46 // Here, 'this' = userDetails2, state = "Uttar Pradesh" and country = "India"
47
48 printDetails.apply(userDetails2, ["Uttar Pradesh", "India"]); // Output: Anshika Gupta Uttar Pradesh India
49
50 // .bind() DOES NOT execute the function immediately. It returns a NEW function with 'this' permanently set.
51
52 // Here, 'this' will always point to userDetails2. Also "Uttar Pradesh" and "India" are pre-set arguments. The returned function
53 // is stored in 'printDetails2'.
54
55 let printDetails2 = printDetails.bind(userDetails2, "Uttar Pradesh", "India");
56
57 // The bound function is called here. Now it executes with the saved context and arguments.
58
59 printDetails2(); // Output: Anshika Gupta Uttar Pradesh India
```