

## Lab

1. Try arrow function with given Arr =[20,7,8,10,89,100,45,17]
  - a. With Array.filter() function, to return the odd numbers from an array.
  - b. With array.foreach() to print the even values.
  - c. With array.sort() to print sorted arr asc and des.
2. **(self Search)** Try for...in, for...of and .foreach() with an array.
  - a. What're the differences between for...in, for...of and .foreach().
3. Create function to do operations like (+,-,\*,/) on its params
  - A- Using eval
  - B- Using rest operator
4. Create an arrow function that returns an object representing a rectangle with properties for its width and height, and a method to calculate its area.
5. Create a predefined list of objects representing students, each with a name and grade. Then, use an arrow function to find and log the names of students who passed (grade >= 50).

```
const students = [  
  { name: 'John', grade: 45 },  
  { name: 'Jane', grade: 85 },  
  { name: 'Dave', grade: 52 },  
  { name: 'Sara', grade: 60 } ];
```

6. Use object destructuring to extract properties from an object into individual variables.
7. Create a simple factory function that generates objects representing cars.

### Instructions:

1. Define a factory function createCar that takes make, model, and year as parameters.
2. Return an object with those properties and a method to display the car's details.
3. Create multiple car objects using this factory function and log their details.

8. Create a factory function to represent different geometric shapes.

**Instructions:**

1. Define a factory function `createShape` that takes `type` and dimensions (`width`, `height`, or `radius`).
2. Include a method to calculate the area based on the shape type.
3. Create instances for different shapes and log their properties and areas.