

JAVASCRIPT



How to Group Array of Elements

@SHAKTHI N R





```
// group in js
```

```
const foodItems = [  
  { id: 1, food: "🥦", type: "Veg" },  
  { id: 2, food: "🍗", type: "Non-Veg" },  
  { id: 3, food: "🥕", type: "Veg" },  
  { id: 4, food: "🥩", type: "Non-Veg" },  
  { id: 5, food: "🍎", type: "Veg" },  
]
```

```
const groupedByType = foodItems.group(elm => elm.type)
```

```
console.log("Results ", groupedByType, groupedByType.Veg)
```

```
/* Grouped by type
```

```
{  
  Veg: [  
    { id: 1, food: "🥦", type: "Veg" },  
    { id: 3, food: "🥕", type: "Veg" },  
    { id: 5, food: "🍎", type: "Veg" },  
  ],  
  Non-Veg: [  
    { id: 2, food: "🍗", type: "Non-Veg" },  
    { id: 4, food: "🥩", type: "Non-Veg" }  
  ]  
}
```

```
groupedByType.Veg -> To access the Veg object
```

```
*/
```


● ● ●
// Conditional grouping in js

```
const foodItems = [  
  { id: 1, food: "🥦", type: "Veg" },  
  { id: 2, food: "🍗", type: "Non-Veg" },  
  { id: 3, food: "🥕", type: "Veg" },  
  { id: 4, food: "🍖", type: "Non-Veg" },  
  { id: 5, food: "🍎", type: "Veg" },  
]
```

// If food is veg then take it for dinner else lunch

```
const groupedBy = foodItems.group(elm => elm.type === "Veg" ? "Dinner" : "Lunch")
```

```
console.log("Results ", groupedBy)
```

```
/* Conditional grouping  
{  
  Dinner: [  
    { id: 1, food: "🥦", type: "Veg" },  
    { id: 3, food: "🥕", type: "Veg" },  
    { id: 5, food: "🍎", type: "Veg" },  
  ],  
  Lunch: [  
    { id: 2, food: "🍗", type: "Non-Veg" },  
    { id: 4, food: "🍖", type: "Non-Veg" }  
  ]  
}  
*/
```

● ● ●
`// groupToMap in js`

```
const foodItems = [  
  { id: 1, food: "🥦", type: "Veg" },  
  { id: 2, food: "🍗", type: "Non-Veg" },  
  { id: 3, food: "🥕", type: "Veg" },  
  { id: 4, food: "🍖", type: "Non-Veg" },  
  { id: 5, food: "🍎", type: "Veg" },  
]
```

```
const groupedByType = foodItems.groupToMap(elm => elm.type)
```

```
console.log("Results ", groupedByType, groupedByType.get("Veg"))
```

```
/* Grouped by type -> but in Map Prototype
```

```
Map {  
  "Veg" => [  
    { id: 1, food: "🥦", type: "Veg" },  
    { id: 3, food: "🥕", type: "Veg" },  
    { id: 5, food: "🍎", type: "Veg" },  
  ],  
  "Non-Veg" => [  
    { id: 2, food: "🍗", type: "Non-Veg" },  
    { id: 4, food: "🍖", type: "Non-Veg" }  
  ]  
}
```

```
groupedByType.Veg -> To access the Veg object  
*/
```




```
// Grouping in js ES5
```

```
const foodItems = [  
  { id: 1, food: "🥦", type: "Veg" },  
  { id: 2, food: "🍗", type: "Non-Veg" },  
  { id: 3, food: "🥕", type: "Veg" },  
  { id: 4, food: "🍖", type: "Non-Veg" },  
  { id: 5, food: "🍎", type: "Veg" },  
]
```

```
function groupBy(arrOfObj, idToGroup) {  
  return arrOfObj.reduce((acc, curr) => {  
    const type = curr[idToGroup]  
  
    if (acc[type] === undefined) acc[type] = [curr]  
    else acc[type].push(curr)  
  
    return acc  
  }, {})  
}
```

```
const groupedByType = groupBy(foodItems, "type")
```

```
console.log("Results: ", groupedByType, groupedByType.Veg)
```

```
/* Grouping – ES5 reduce method
```

```
{  
  Veg: [  
    { id: 1, food: "🥦", type: "Veg" },  
    { id: 3, food: "🥕", type: "Veg" },  
    { id: 5, food: "🍎", type: "Veg" },  
  ],  
  Non-Veg: [  
    { id: 2, food: "🍗", type: "Non-Veg" },  
    { id: 4, food: "🍖", type: "Non-Veg" }  
  ]  
}
```

```
groupedByType.Veg -> To access the Veg object  
*/
```