

# Exercise Objects

## Exercises

### Exercises: Level 1

1. Create an empty object called dog
2. Print the the dog object on the console
3. Add name, legs, color, age and bark properties for the dog object. The bark property is a method which return *woof woof*
4. Get name, legs, color, age and bark value from the dog object
5. Set new properties the dog object: breed, getDogInfo

### Exercises: Level 2

1. Find the person who has many skills in the users object.
2. Count logged in users,count users having greater than equal to 50 points from the following object.

```
const users = {
  Alex: {
    email: 'alex@alex.com',
    skills: ['HTML', 'CSS', 'JavaScript'],
    age: 20,
    isLoggedIn: false,
    points: 30
  },
  Asab: {
    email: 'asab@asab.com',
    skills: ['HTML', 'CSS', 'JavaScript', 'Redux', 'MongoDB', 'Express', 'React', 'Node'],
    age: 25,
    isLoggedIn: false,
    points: 50
  },
  Brook: {
    email: 'daniel@daniel.com',
    skills: ['HTML', 'CSS', 'JavaScript', 'React', 'Redux'],
    age: 30,
    isLoggedIn: true,
    points: 50
  }
}
```

```

},
Daniel: {
  email: 'daniel@alex.com',
  skills: ['HTML', 'CSS', 'JavaScript', 'Python'],
  age: 20,
  isLoggedIn: false,
  points: 40
},
John: {
  email: 'john@john.com',
  skills: ['HTML', 'CSS', 'JavaScript', 'React', 'Redux', 'Node.js'],
  age: 20,
  isLoggedIn: true,
  points: 50
},
Thomas: {
  email: 'thomas@thomas.com',
  skills: ['HTML', 'CSS', 'JavaScript', 'React'],
  age: 20,
  isLoggedIn: false,
  points: 40
},
Paul: {
  email: 'paul@paul.com',
  skills: ['HTML', 'CSS', 'JavaScript', 'MongoDB', 'Express', 'React', 'Node'],
  age: 20,
  isLoggedIn: false,
  points: 40
}
}

```

1. Find people who are MERN stack developer from the users object
2. Set your name in the users object without modifying the original users object
3. Get all keys or properties of users object
4. Get all the values of users object
5. Use the countries object to print a country name, capital, populations and languages.

## Exercises: Level 3

1. Create an object literal called *personAccount*. It has *firstName*, *lastName*, *incomes*, *expenses* properties and it has *totalIncome*, *totalExpense*, *accountInfo*, *addIncome*, *addExpense* and *accountBalance* methods. Incomes is a set of incomes and its description and expenses is a set of incomes and its description.

2. \*\*\* Questions:2, 3 and 4 are based on the following two arrays:users and products ()

```
const users = [
  {
    _id: 'ab12ex',
    username: 'Alex',
    email: 'alex@alex.com',
    password: '123123',
    createdAt: '08/01/2020 9:00 AM',
    isLoggedIn: false
  },
  {
    _id: 'fg12cy',
    username: 'Asab',
    email: 'asab@asab.com',
    password: '123456',
    createdAt: '08/01/2020 9:30 AM',
    isLoggedIn: true
  },
  {
    _id: 'zwf8md',
    username: 'Brook',
    email: 'brook@brook.com',
    password: '123111',
    createdAt: '08/01/2020 9:45 AM',
    isLoggedIn: true
  },
  {
    _id: 'eefamr',
    username: 'Martha',
    email: 'martha@martha.com',
    password: '123222',
    createdAt: '08/01/2020 9:50 AM',
    isLoggedIn: false
  },
  {
    _id: 'ghderc',
    username: 'Thomas',
    email: 'thomas@thomas.com',
    password: '123333',
    createdAt: '08/01/2020 10:00 AM',
    isLoggedIn: false
  }
];

const products = [
  {
    _id: 'eedfcf',
    name: 'mobile phone',
    description: 'Huawei Honor',
    price: 200,
    ratings: [
      { userId: 'fg12cy', rate: 5 },
      { userId: 'zwf8md', rate: 4.5 }
    ]
  },
]
```

```

    likes: []
  },
  {
    _id: 'aegfal',
    name: 'Laptop',
    description: 'MacPro: System Darwin',
    price: 2500,
    ratings: [],
    likes: ['fg12cy']
  },
  {
    _id: 'hedfcg',
    name: 'TV',
    description: 'Smart TV:Procaster',
    price: 400,
    ratings: [{ userId: 'fg12cy', rate: 5 }],
    likes: ['fg12cy']
  }
]

```

Imagine you are getting the above users collection from a MongoDB database. a. Create a function called `signUp` which allows user to add to the collection. If user exists, inform the user that he has already an account. b. Create a function called `signIn` which allows user to sign in to the application

1. The products array has three elements and each of them has six properties.
  - a. Create a function called `rateProduct` which rates the product
  - b. Create a function called `averageRating` which calculate the average rating of a product
2. Create a function called `likeProduct`. This function will helps to like to the product if it is not liked and remove like if it was liked.