

ITP JS: Week 6

HW

1. Look at the following code:

```
var myObj = {
  type: 'ball',
  color: 'green',

  introduce: () => {
    setTimeout(() => {
      console.log(`The ${this.type} is of color ${this.color}`);
    }, 1000);
  },
};

myObj.introduce();
```

What would be the output of the above program? Is there any problem with the code? If so, why did it appear and how to fix it?

Try to answer the question without running code first.

2. Using JavaScript, build a HashMap data structure. A HashMap can store key-value pairs. It has operations like add(), get() and remove(). The add() and get() operation should be in O(1) time.

NOTE: You have to create a Class named HashMap which will handle all hashmap related functions. Use the latest ES6 Class syntax.

HINT: Javascript Objects can be used as key-value holders.

3. Use this as a reference of DOM Manipulation (watching all videos is **optional**, only pick those in which you're still confused): [DOM Manipulation by Net Ninja](#)

Based on your refreshed knowledge on DOM manipulation, create a registration form that takes your First Name, Last Name, Age, Gender (dropdown), Phone No, Present Address, Permanent Address. There will be a checkbox named "Present and Permanent Address same", if the user checks it, Permanent Address will be automatically filled with

the value of Present Address. Now, upon submitting the form, the following should be met:

- All fields except Phone No is **required**. Which means, if the user doesn't fill up the fields, a corresponding **error message** will be shown in **red** just after that field. If multiple fields are left blank, the same error message would be shown adjacent to the fields
- The Phone number should be valid and should not contain anything other than numbers. If it does, show the appropriate message showing the error (look for **isNaN** function)
- The Phone No should have an exact length of **11**. If it doesn't, then show the proper error message adjacent to the field.
- When the user corrects the errors and submits, the previous errors should be cleared (if any) and then would show an Alert saying "Submission Successful"

HINT: To hide/show the error messages, you have to use CSS property display. Setting display = None will hide the object and display = block will show the object.

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