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# Full Stack Web Development Program

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# Day 23 - Modernize JavaScript with ES6 Features



# Titles

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- Form Validation
- JavaScript ES6
- Difference between ES5 and ES6
- var vs let vs const
- Arrow Functions
- Template String
- Spread Operator
- Rest Operator
- Object Destructuring



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# Learning Objectives

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By the end of this module, you will be able to:

- Implement form validations on web pages
- Identify the difference between ES5 and ES6 and elaborate on ES6



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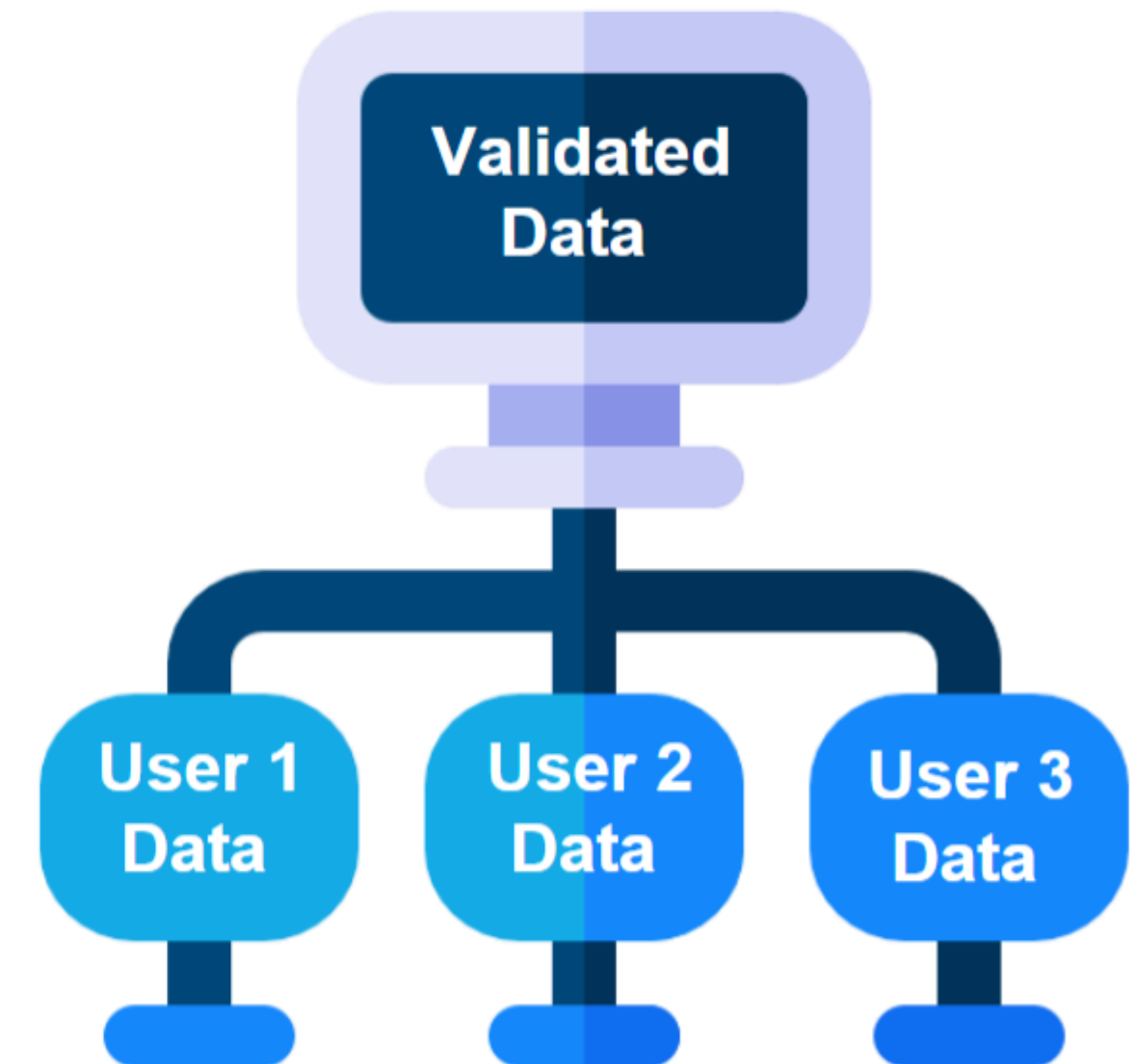
# Modernize JavaScript with ES6 Features

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# Form Validation

- Normally, Form validation occurs on the server side to verify the details given by the user.
- It is used to make sure that the entered data is correct and clean.
- It allows you to verify the data before submitting it to the server.
- Some of the commonly used validation tasks are:
  - To ensure all the required fields are filled.
  - To ensure that the user has entered a valid date
  - To ensure that the user has entered numbers in numeric fields.
  - To ensure that the user has entered a valid email.



# Form Validation (contd.)

- The attribute within HTML input tags enables us to carry out fundamental form validations.

```
<form>
  <label for="username">Username</label>
  <input type="text" id="username" required />
  <input type="submit" />
</form>
```

The **required** attribute of the HTML input tag makes the input field mandatory.

Username

Before clicking on the submit button

Username

! Please fill out this field.

After clicking on submit button without entering details of the user

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# Form Validation (contd.)

A screenshot of a 'Create an account' form. The form has a yellow background and a purple border. It contains four input fields: 'UserName', 'Email', 'password', and 'confirm password'. A purple 'Submit' button is at the bottom. The form is shown in its initial state before any validation.

Before clicking on submit button

A screenshot of the same 'Create an account' form after submission without entering details. The input fields are now outlined in red, and each has a green exclamation mark icon indicating an error. Below each field is an error message: 'username can not be empty', 'Email can not be empty', 'password can not be empty', and 'password mismatch'. The 'Submit' button is still visible at the bottom.

After clicking on submit button without entering details of the user

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# Example - I Form Validation

## Code:

```
<body>
  <div id="root">
    <form name="myForm" onsubmit="validate()" method="post"> Name: <input type="text"
name="name">
    <input type="submit" value="Submit">
    </form>
  </div>
  <script>
    function validate(){
      var x = document.forms["myForm"]["name"].value;
      if (x == ""){
        alert("Name Can't be Empty"); return false;
      }
      else {
        let value = "Form Submitted Successfully";
        document.getElementById("root").innerHTML = value;
      }
    }
  </script>
</body>
```

This function will make sure that the value of the field isn't empty.

# Example - I Output

Before clicking the Submit button

Food Delivery App

File | C:/Users/ILAAF%20NISAR/Downloa...

Name:  Submit

After clicking the Submit button

Food Delivery App

File | C:/Users/ILAAF%20NISAR/Downloa... Incognito

Name:

This page says  
Name Can't be Empty

OK

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# Example - 2 Form Validation

## Code:

```
<body>
  <div id="root">
    <form name="myForm" onsubmit="validate()" method="post">
      <b>Phone Number: </b><input type="text" name="ContactNumber">
      <input type="submit" value="Submit">
    </form>
  </div>
  <script>
    function validate(){
      var x = document.forms["myForm"]["ContactNumber"].value;
      if (isNaN(x) || x == "") {
        alert("Please enter number")
      }
      else {
        let value = "Submitted Successfully";
        document.getElementById("root").innerHTML = value;
      }
    }
  </script>
</body>
```

This function will make sure that the value of the field is number

# Example - 2 Output

Before clicking the Submit button

A screenshot of a web browser window titled "Food Delivery App". The address bar shows the file path "C:/Users/ILAAF%20NISAR/Downloa...". The page content displays a form with the label "Phone Number:" followed by a text input field containing the value "0123456789". To the right of the input field is a "Submit" button.

After clicking the Submit button

A screenshot of the same web browser window after the "Submit" button was clicked. The page content now displays the text "Successfully submitted" in a large, bold font.

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# Example - 3 Form Validation

## Code:

```
<body>
  <div id="root">
    <form name="myForm" onsubmit="validate()" method="post">
      <b>DOB: </b><input type="date" name="DOB">
      <input type="submit" value="Submit">
    </form>
  </div>
  <script>
    function validate(){
      var x = document.forms["myForm"]["DOB"].value;
      let DOB = new Date(x).getTime()
      let today = Date.now()
      let milli_diff = Math.abs(today - DOB)
      var age = (milli_diff / (1000 * 3600 * 24 * 365.25));
      if (age < 18) {
        alert("Sorry.. You should focus on your studies");
        return false;
      }
      var value = "Successfully Submitted"
      document.getElementById("root").innerHTML = value;
    }
  </script>
</body>
```

This function will make sure that the user is old enough to understand your product.



# Example - 3 Output

Before clicking the Submit button

A screenshot of a web browser window titled "Food Delivery App". The address bar shows the file path "C:/Users/ILAAF%20NISAR/Downloa...". The form contains a label "DOB:" followed by a text input field containing "18-08-2004" and a calendar icon. To the right of the input field is a "Submit" button.

After clicking the Submit button

A screenshot of the same web browser window after the "Submit" button was clicked. A modal dialog box is displayed in the center of the screen. The dialog has a title bar that says "This page says" and a message that reads "Sorry.. You should focus on your studies". There is a blue "OK" button at the bottom right of the dialog. The background form is partially visible behind the dialog.