

## Practical 1

1. Write a program to display "Hello World" using:

- console.log()
- document.write()
- alert()

```
from IPython.display import display, HTML, Javascript

# console.log()
display(Javascript('console.log("Hello World")'))

# document.write()
display(HTML("<h2>Hello World</h2>"))

# alert()
print("Hello World (alert simulated)")
```

**Hello World**  
Hello World (alert simulated)

2.Display the text in document.write using HTML formatting tags.

```
from IPython.display import HTML, display

display(HTML("""
<script>
// Create a div element
var div = document.createElement("div");

// Add formatted HTML content
div.innerHTML = `
<h2 style="color:blue;">Welcome </h2>
<b>College name:</b>Goverment Polytechnic Awasari <br>
<i>District:</i> Pune<br>
<u>Place:Awasari(kh)</u> <br>

`;

// Append to document body
document.body.appendChild(div);
</script>
"""))

```

## Welcome

**College name:**Goverment Polytechnic Awasari

*District:* Pune

Place:Awasari(kh)

## Practical 5

Develop New Employee registration form with different form controls and validate it with ng-show.

```
from IPython.display import HTML, display

display(HTML("""
<!DOCTYPE html>
<html ng-app="empApp">
<head>
<title>New Employee Registration</title>
<script
src="https://ajax.googleapis.com/ajax/libs/
angularjs/1.8.2/angular.min.js"></script>
<style>
body {
    font-family: Arial;
    background: #eef2f7;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
}
.box {
    width: 450px;
    background: white;
    padding: 25px;
    border-radius: 12px;
    box-shadow: 0 0 12px rgba(0,0,0,0.2);
}
h2 {
    text-align: center;
    margin-bottom: 20px;
}
.row {
    display: flex;
    flex-direction: column;
    margin-bottom: 12px;
}
label {
    font-weight: bold;
    margin-bottom: 4px;
}
input, select {
    padding: 7px;
    border-radius: 5px;
    border: 1px solid #aaa;
    font-size: 14px;
}
.radio-group {
    display: flex;
    gap: 15px;
    margin-top: 5px;
}
.error {
    color: red;
    font-size: 12px;
    margin-top: 3px;
}
.terms {
    display: flex;
    align-items: center;
    gap: 6px;
    margin-top: 5px;
}
button {
    width: 100%;
    background: #0d6efd;
    color: white;
    border: none;
    padding: 10px;
    font-size: 15px;
    border-radius: 6px;
    cursor: pointer;
    margin-top: 12px;
}
button:hover {
    background: #0b5ed7;
}
</style>
</head>
```

```

<body ng-controller="empCtrl">

<div class="box">
    <h2>Employee Registration</h2>

    <form name="empForm" novalidate>

        <div class="row">
            <label>Name</label>
            <input type="text" name="name" ng-model="emp.name" required>
            <span class="error" ng-show="empForm.name.$touched && empForm.name.$invalid">
                Name is required
            </span>
        </div>

        <div class="row">
            <label>Email</label>
            <input type="email" name="email" ng-model="emp.email" required>
            <span class="error" ng-show="empForm.email.$touched && empForm.email.$invalid">
                Valid email required
            </span>
        </div>

        <div class="row">
            <label>Password</label>
            <input type="password" name="pass" ng-model="emp.pass" ng-minlength="6" required>
            <span class="error" ng-show="empForm.pass.$touched && empForm.pass.$invalid">
                Minimum 6 characters required
            </span>
        </div>

        <div class="row">
            <label>Gender</label>
            <div class="radio-group">
                <label><input type="radio" ng-model="emp.gender" value="Male">
                    Male</label>
                <label><input type="radio" ng-model="emp.gender" value="Female">
                    Female</label>
            </div>
        </div>

        <div class="row">
            <label>Department</label>
            <select ng-model="emp.dept" required>
                <option value="">Select</option>
                <option>HR</option>
                <option>IT</option>
                <option>Finance</option>
                <option>Marketing</option>
            </select>
            <span class="error" ng-show="emp.dept==''">Department required</span>
        </div>

        <div class="row">
            <label>Date of Joining</label>
            <input type="date" ng-model="emp.doj" required>
        </div>

        <div class="row terms">
            <input type="checkbox" ng-model="emp.terms">
            <label>I agree to terms</label>
            <span class="error" ng-show="!emp.terms">Accept terms</span>
        </div>

        <button ng-disabled="empForm.$invalid || !emp.terms">Register</button>
    </form>
</div>

<script>
var app = angular.module("empApp", []);

app.controller("empCtrl", function($scope)
{
    $scope.emp = {};
});
</script>

```

```

        """"))
</body>
</html>

```

**Employee Registration**

**Name**  
shreya thombare  
Name is required

**Email**  
shreya@gmail.com  
Valid email required

**Password**  
\*\*\*\*  
Minimum 6 characters required

**Gender**  
 Male  Female

**Department**  
Select  
Department required

**Date of Joining**  
dd-mm-yyyy

I agree to terms

Accept terms

Register

Develop Student exam registration form and validate it with ng-controller directive

```

from IPython.display import HTML, display
display(HTML("""
<!DOCTYPE html>
<html ng-app="studApp">
<head>
    <title>Student Exam Registration</title>
    <script
        src="https://ajax.googleapis.com/ajax/libs/
        angularjs/1.8.2/angular.min.js"></script>
    <style>
        body {
            font-family: Arial;
            background: #eef2f7;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
        }
        .box {
            width: 450px;
            background: white;
            padding: 25px;
            border-radius: 12px;
            box-shadow: 0 0 12px rgba(0,0,0,0.2);
        }
        h2 {
            text-align: center;
            margin-bottom: 20px;
        }
        .row {
            display: flex;
            flex-direction: column;
            margin-bottom: 12px;
        }
        label {
            font-weight: bold;
            margin-bottom: 4px;
        }
        input, select {
            padding: 7px;
        }
    </style>

```

```

    border-radius: 5px;
    border: 1px solid #aaa;
    font-size: 14px;
}

.radio-group {
    display: flex;
    gap: 15px;
    margin-top: 5px;
}

.error {
    color: red;
    font-size: 12px;
    margin-top: 3px;
}

.terms {
    display: flex;
    align-items: center;
    gap: 6px;
}

button {
    width: 100%;
    background: #198754;
    color: white;
    border: none;
    padding: 9px;
    font-size: 15px;
    border-radius: 6px;
    cursor: pointer;
    margin-top: 10px;
}

button:hover {
    background: #146c43;
}

</style>
</head>

<body ng-controller="studCtrl">

<div class="box">
    <h2>Student Exam Registration</h2>
    <form novalidate>
        <div class="row">
            <label>Student Name</label>
            <input type="text" ng-model="stud.name">
            <span class="error" ng-show="submitted && !stud.name">Name is required</span>
        </div>
        <div class="row">
            <label>Roll Number</label>
            <input type="number" ng-model="stud.roll">
            <span class="error" ng-show="submitted && !stud.roll">Roll No is required</span>
        </div>
        <div class="row">
            <label>Email</label>
            <input type="email" ng-model="stud.email">
            <span class="error" ng-show="submitted && !stud.email">Email is required</span>
        </div>
        <div class="row">
            <label>Semester</label>
            <select ng-model="stud.sem">
                <option value="">Select</option>
                <option>1</option>
                <option>2</option>
                <option>3</option>
                <option>4</option>
                <option>5</option>
                <option>6</option>
            </select>
            <span class="error" ng-show="submitted && !stud.sem">Select semester</span>
        </div>
        <div class="row">
            <label>Gender</label>
            <div class="radio-group">

```

```

        <label><input type="radio" ng-
model="stud.gender" value="Male">
Male</label>
        <label><input type="radio" ng-
model="stud.gender" value="Female">
Female</label>
    </div>
    <span class="error" ng-
show="submitted && !stud.gender">Select
gender</span>
</div>

<div class="row terms">
    <input type="checkbox" ng-
model="stud.terms">
    <label>I agree to exam rules</label>
</div>
    <span class="error" ng-show="submitted
&& !stud.terms">Accept terms</span>

    <button ng-
click="submit()">Submit</button>
</form>
</div>

<script>
var app = angular.module("studApp", []);

```

```

app.controller("studCtrl", function($scope)
{
    $scope.stud = {};
    $scope.submitted = false;

    $scope.submit = function() {
        $scope.submitted = true;

        if ($scope.stud.name &&
            $scope.stud.roll &&
            $scope.stud.email &&
            $scope.stud.sem &&
            $scope.stud.gender &&
            $scope.stud.terms) {

            alert("Registration Successful!");
        }
    };
}
);

```

**Student Exam Registration**

**Student Name**  
shreya thombare  
Name is required

**Roll Number**  
36  
Roll No is required

**Email**  
Email is required

**Semester**  
6  
Select semester

**Gender**  
 Male  Female  
Select gender

I agree to exam rules

Accept terms

Submit

Develop a form with different controls and validate it onclick of submit button using ng click

```
from IPython.display import HTML, display

display(HTML("""
<!DOCTYPE html>
<html ng-app="myApp">
<head>
    <title>Form Validation using ng-
click</title>
    <script
        src="https://ajax.googleapis.com/ajax/libs/
angularjs/1.8.2/angular.min.js"></script>
    <style>
        body {
            font-family: Arial;
            background: #eef2f7;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
        }
        .box {
            width: 450px;
            background: white;
            padding: 25px;
            border-radius: 12px;
            box-shadow: 0 0 12px rgba(0,0,0,0.2);
        }
        h2 {
            text-align: center;
            margin-bottom: 20px;
        }
        .row {
            display: flex;
            flex-direction: column;
            margin-bottom: 12px;
        }
        label {
            font-weight: bold;
            margin-bottom: 4px;
        }
        input, select {
            padding: 7px;
            border-radius: 5px;
            border: 1px solid #aaa;
            font-size: 14px;
        }
        .radio-group {
            display: flex;
            gap: 15px;
            margin-top: 5px;
        }
        .terms {
            display: flex;
            align-items: center;
            gap: 6px;
            margin-top: 5px;
        }
        .error {
            color: red;
            font-size: 12px;
            margin-top: 3px;
        }
        button {
            width: 100%;
            background: #0d6efd;
            color: white;
            border: none;
            padding: 10px;
            font-size: 15px;
            border-radius: 6px;
            cursor: pointer;
            margin-top: 12px;
        }
        button:hover {
            background: #0b5ed7;
        }
    </style>
</head>
<body ng-controller="formCtrl">
```

```

<div class="box">
  <h2>Registration Form</h2>

  <form novalidate>

    <div class="row">
      <label>Name</label>
      <input type="text" ng-model="user.name">
      <span class="error" ng-show="submitted && !user.name">Name is required</span>
    </div>

    <div class="row">
      <label>Email</label>
      <input type="email" ng-model="user.email">
      <span class="error" ng-show="submitted && !user.email">Valid email required</span>
    </div>

    <div class="row">
      <label>Password</label>
      <input type="password" ng-model="user.pass">
      <span class="error" ng-show="submitted && !user.pass">Password required</span>
    </div>

    <div class="row">
      <label>Department</label>
      <select ng-model="user.dept">
        <option value="">Select</option>
        <option>IT</option>
        <option>HR</option>
        <option>Finance</option>
        <option>Marketing</option>
      </select>
      <span class="error" ng-show="submitted && !user.dept">Select department</span>
    </div>

    <div class="row">
      <label>Gender</label>
      <div class="radio-group">
        <label><input type="radio" ng-model="user.gender" value="Male"> Male</label>
        <label><input type="radio" ng-model="user.gender" value="Female"> Female</label>
      </div>
      <span class="error" ng-show="submitted && !user.gender">Select gender</span>
    </div>

    <div class="row terms">
      <input type="checkbox" ng-model="user.terms">
      <label>I agree to terms</label>
    </div>
    <span class="error" ng-show="submitted && !user.terms">Accept terms</span>

    <button ng-click="submitForm()">Submit</button>
  </form>
</div>

<script>
var app = angular.module("myApp", []);

app.controller("formCtrl", function($scope)
{
  $scope.user = {};
  $scope.submitted = false;

  $scope.submitForm = function() {
    $scope.submitted = true;

    if ($scope.user.name &&
        $scope.user.email &&
        $scope.user.pass &&
        $scope.user.dept &&
        $scope.user.gender &&
        $scope.user.terms) {
      alert("Form Submitted Successfully!");
    }
  }
});

```

```
        }  
    } ;  
  
});  
</script>  
  
</body>  
</html>  
""") )
```

### Registration Form

**Name**  
  
Name is required

**Email**  
  
Valid email required

**Password**  
  
Password required

**Department**  
▼  
Select department

**Gender**  
 Male    Female  
Select gender

I agree to terms

Accept terms

**Submit**

## Practical 6

Display Hello .Set the name as your name

```
from IPython.display import HTML, display

display(HTML("""
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
</head>

<body>

<div id="app" ng-controller="myCtrl">
<h2>Hello {{name}}</h2>
</div>

<script>
var app = angular.module("myApp", []);

app.controller("myCtrl", function($scope) {
  $scope.name = "Shreya";
});

// Manual bootstrap for Colab/Jupyter
angular.bootstrap(document.getElementById("app"), ['myApp']);
</script>

</body>
</html>
"""))
```

\*\*\*

Hello Shreya

Set the first name and last name in separate property and display full name.

```
from IPython.display import HTML, display
```

```
display(HTML("""
<!DOCTYPE html>
<html>
<head>
```

```

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
</head>

<body>

<div id="app" ng-controller="nameCtrl">
  <h2>First Name: {{fname}}</h2>
  <h2>Last Name: {{lname}}</h2>
  <h2>Full Name: {{fname + " " + lname}}</h2>
</div>

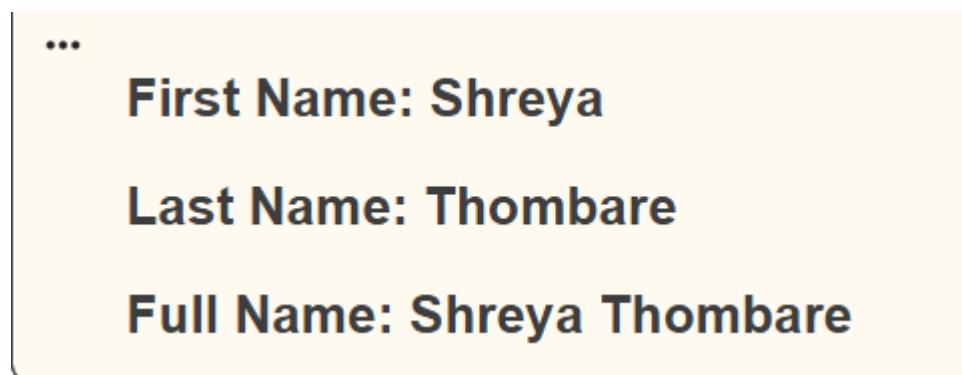
<script>
var app = angular.module("myApp", []);

app.controller("nameCtrl", function($scope) {
  $scope.fname = "Shreya";
  $scope.lname = "Thombare";
});

// Manual bootstrap for Google Colab
angular.bootstrap(document.getElementById("app"), ['myApp']);
</script>

</body>
</html>
""") )

```



## Practical 7

Accept name in text field in the form and display it.

```
from IPython.display import HTML, display

display(HTML("""
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
</head>

<body>

<div id="app" ng-controller="nameCtrl">

<h2>Enter Your Name:</h2>
<input type="text" ng-model="name" placeholder="Type your name">

<h2>Hello {{name}}</h2>

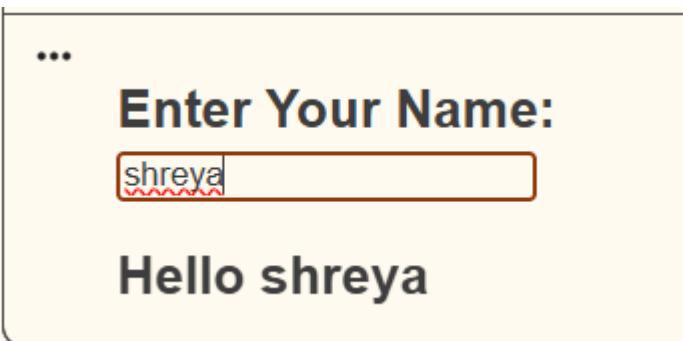
</div>

<script>
var app = angular.module("myApp", []);

app.controller("nameCtrl", function($scope) {
  $scope.name = "";
});

// Manual bootstrap for Google Colab
angular.bootstrap(document.getElementById("app"), ['myApp']);
</script>

</body>
</html>
"""))
```



Created a registration form. The user fills in the details and clicks on the submit button. On clicking on the submit button the details filled by the user are displayed

```
from IPython.display import HTML, display
display(HTML("""
<!DOCTYPE html>
<html>
<head>
<script
src="https://ajax.googleapis.com/ajax/libs/
angularjs/1.8.2/angular.min.js"></script>
<style>
body {
  font-family: Arial;
  background: #eef2f7;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
}
.container {
  width: 500px;
  background: white;
  padding: 25px;
  border-radius: 12px;
  box-shadow: 0 0 12px rgba(0,0,0,0.2);
}
h2 {
  text-align: center;
  margin-bottom: 15px;
}
.row {
  display: flex;
  flex-direction: column;
  margin-bottom: 12px;
}
label {
  font-weight: bold;
  margin-bottom: 4px;
}
input, select {
  padding: 7px;
}
button {
  border-radius: 5px;
  border: 1px solid #aaa;
}
.radio-group {
  display: flex;
  gap: 15px;
}
button {
  width: 100%;
  background: #0d6efd;
  color: white;
  border: none;
  padding: 10px;
  font-size: 15px;
  border-radius: 6px;
  cursor: pointer;
  margin-top: 10px;
}
.result {
  margin-top: 15px;
  background: #e9f7ef;
  padding: 12px;
  border-radius: 8px;
}
</style>
</head>
<body>
<div id="app" class="container" ng-
controller="regCtrl">
<h2>Registration Form</h2>
<form>
<div class="row">
<label>Name</label>
<input type="text" ng-
model="user.name">
</div>
<div class="row">
```

```

<label>Email</label>
<input type="email" ng-
model="user.email">
</div>

<div class="row">
<label>Gender</label>
<div class="radio-group">
<label><input type="radio" ng-
model="user.gender" value="Male">
Male</label>
<label><input type="radio" ng-
model="user.gender" value="Female">
Female</label>
</div>
</div>

<div class="row">
<label>Department</label>
<select ng-model="user.dept">
<option value="">Select</option>
<option>IT</option>
<option>HR</option>
<option>Finance</option>
<option>Marketing</option>
</select>
</div>

<button type="button" ng-
click="submit()">Submit</button>

</form>

<!-- Display Entered Data -->
<div class="result" ng-show="showData">
<h3>Entered Details:</h3>
<p><b>Name:</b> {{user.name}}</p>
<p><b>Email:</b> {{user.email}}</p>
<p><b>Gender:</b> {{user.gender}}</p>
<p><b>Department:</b> {{user.dept}}</p>
</div>

</div>

<script>
var app = angular.module("myApp", []);
app.controller("regCtrl", function($scope)
{
  $scope.user = {};
  $scope.showData = false;

  $scope.submit = function() {
    $scope.showData = true;
  };

  // Manual bootstrap for Google Colab
  angular.bootstrap(document.getElementById("app"), ['myApp']);
</script>

```

**Registration Form**

**Name**  
shreya thombare

**Email**  
shreya@gmail.com

**Gender**  
 Male  Female

**Department**  
Select

Submit

**Entered Details:**  
**Name:** shreya thombare  
**Email:** shreya@gmail.com  
**Gender:** Female  
**Department:**