Aayush Shah

19BCE245

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Practical 8

A.   Design a student registration form using AngularJS and apply number, uppercase, and lowercase filters to the appropriate fields.

<u>practical8.html</u>

```
1. <!DOCTYPE html>
2.
3. <!--Design a student registration form using AngularJS and
   apply number, uppercase, and lowercase filters to the
   appropriate fields.-->
4.
5. <html>
6.
7. <head>
8.    <meta charset="UTF-8">
9.    <title>Student Registration Form</title>
10.   <link rel="stylesheet" type="text/css" href="./
   8_style.css">
11.   <script src="https://ajax.googleapis.com/ajax/libs/
   angularjs/1.8.2/angular.min.js"></script>
12.   <script src="./8_script.js">//JAVASCRIPT for form
   validation :</script>
13.   <!--AngularJS library from CDN-->
14.</head>
15.
16.<body ng-app="mainApp" ng-controller="detailsOfStudent"
   bgcolor=#cadefc>
17.   <h1 style="white-space: nowrap;" align="center">
18.      <font color="#383e56">STUDENT REGISTRATION FORM</
   font>
```

```
19.   </h1>
20.   <br>
21.   <div id="container">
22.
23.       <div id="leftThing">
24.           <!-- INPUT -->
25.           <form id="registrationForm" method="post"
    onsubmit="return validateForm()">
26.
27.               <label> First name :    </
    label>
28.               <input type="text" name="firstname"
    size="15" placeholder="Aayush" maxlength="20"
    id="first_name"
29.                     ng-model="student.first_name" /> <br>
    <br>
30.               <label> Middle name : </label>
31.               <input type="text" name="middlename"
    size="15" placeholder="Umeshbhai" id="middle_name"
32.                     ng-model="student.middle_name" />
    <br> <br>
33.               <label> Last name :
        </label>
34.               <input type="text" name="lastname"
    size="15" placeholder="Shah" id="last_name"
35.                     ng-model="student.last_name" /> <br>
    <br>
36.               <label> Date of Birth :
          </label>
37.               <input type="date" name="lastname"
    size="15" ng-model="student.date_of_birth" /> <br> <br>
38.
39.               <label>
40.                   Gender :
41.               </label>
42.               <input type="radio" name="gender"
    value="Male" ng-model="student.gender" /> Male
43.               <input type="radio" name="gender"
    value="Female" ng-model="student.gender" /> Female
44.               <br>
45.
46.               <br>
47.               <label>
```

```html
48.                        Hobby :
49.                  </label>
50.                  <input type="checkbox" name="Hobby"
   value="Reading" checked ng-model="student.hobby.value1"
51.                      ng-true-value="'Reading'" ng-false-
   value="' '">Readinig
52.                  <input type="checkbox" name="Hobby"
   value="Dancing" ng-model="student.hobby.value2"
53.                      ng-true-value="'Dancing'" ng-false-
   value="' '">Dancing
54.                  <input type="checkbox" name="Hobby"
   value="Singing" ng-model="student.hobby.value3"
55.                      ng-true-value="'Singinig'" ng-false-
   value="' '">Singing
56.                  <br>
57.                  <br>
58.                  Course:
59.                  <select ng-model="student.course">
60.                      <!--        <select multiple>-->
61.                      <!--        include multiple for
   selecting multiple options -->
62.                      <option selected disabled>Select
   course</option>
63.                      <option value="Course">Course</
   option>
64.                      <option value="BCA">BCA</option>
65.                      <option value="BBA">BBA</option>
66.                      <option value="B.Tech">B.Tech</
   option>
67.                      <option value="MBA">MBA</option>
68.                      <option value="MCA">MCA</option>
69.                      <option value="M.Tech">M.Tech</
   option>
70.              </select>
71.                  <br>
72.                  <br>
73.
74.                  <label>Phone number : </label>
75.                  <input type="text" name="phone" size="10"
   placeholder="9898123123" ng-model="student.phone_number" />
76.                  <br> <br>
77.                  Address :
78.                  <br>
```

```html
79.                    <textarea cols="40" rows="5"
    value="address" placeholder="Enter your address here"
80.                         ng-model="student.address"></
    textarea>
81.                    <br> <br>
82.                    <label>Email: <label><br>
83.                         <input type="email" id="email"
    name="email" placeholder="19BCE245@nirmauni.ac.in"
84.                              ng-model="student.email" />
    <br>
85.                              <br>
86.                              Password: <br>
87.                              <input type="Password"
    name="pass" placeholder="Str0ngP@ss123" id="password"
88.                                   ng-
    model="student.password"> <br>
89.                              <br>
90.                              Re-type password: <br>
91.                              <input type="Password"
    name="repass" placeholder="Str0ngP@ss123" id="rePassword"
92.                                   ng-
    model="student.re_password"> <br> <br>
93.
94.            </form>
95.        </div>
96.
97.        <div id="rightThing">
98.            <!-- OUTPUT -->
99.            <form id="registrationForm" method="post"
    onsubmit="return validateForm()">
100.                   <label> First name :    </
    label>
101.                   <input type="text" name="firstname"
    size="15" maxlength="20" id="first_name"
    placeholder="Aayush"
102.                       value="{{student.first_name |
    capitalize}}" /> <br> <br>
103.                   <label> Middle name : </label>
104.                   <input type="text" name="middlename"
    size="15" placeholder="Umeshbhai" id="middle_name"
105.                       value="{{student.middle_name |
    capitalize}}" /> <br> <br>
```

```
106.                    <label> Last name :
        </label>
107.                    <input type="text" name="lastname"
    size="15" placeholder="Shah" id="last_name"
108.                        value="{{student.last_name |
    capitalize}}" /> <br> <br>
109.                    <label> Date of Birth :
          {{student.date_of_birth
    |
110.                        date:'dd-MM-yyyy'}}</label>
111.            <br>
112.
113.
114.            <br>
115.            <label>
116.                Gender :
117.            </label>
118.            {{student.gender}}
119.            <br>
120.
121.            <br>
122.            <label>
123.                Hobby :
124.            </label>
125.            {{student.hobby.value1}}
    {{student.hobby.value2}} {{student.hobby.value3}}
126.            <br>
127.            <br>
128.            Course:
129.                <!--         <select multiple>-->
130.                <!--         include multiple for
    selecting multiple options -->
131.                <input type="text"
    value="{{student.course}}" />
132.            <br>
133.            <br>
134.            <label>Phone number : </label>
135.            <input type="text" name="phone" size="10"
    maxlength="10" placeholder="9898123123"
136.                value="{{student.phone_number |
    limitTo:10 }}" /> <br> <br>
137.            Address :
138.            <br>
```

```html
139.                 <textarea cols="40" rows="5"
   value="address"
140.                      placeholder="Enter your address
   here">{{student.address | capitalize}}</textarea>
141.                 <br> <br>
142.                 <label>Email: <label><br>
143.                      <input type="text"
   placeholder="19BCE245@nirmauni.ac.in"
144.                           value="{{student.email |
   lowercase}}" /> <br>
145.                           <br>
146.                           Password: <br>
147.                           <input type="text" name="pass"
   placeholder="Str0ngP@ss123" id="password"
148.                                value="{{student.password |
   uppercase}}"> <br>
149.                           <br>
150.                           Re-type password: <br>
151.                           <input type="text" name="repass"
   placeholder="Str0ngP@ss123" id="rePassword"
152.
   value="{{student.re_password | uppercase}}"> <br> <br>
153.
154.           </form>
155.      </div>
156.
157. </div>
158. <br>
159. <pre><input type="Submit" value="Submit"
   form="registrationForm" class="button"  style="width:
   25%;margin-left:250px;"/> <input type="Reset"
   value="Reset" form="registrationForm" class="button"
   style="width: 25%;margin-left:210px;">    </pre>
160.
161.</body>
162.
163.</html>
```

8_style.css

```css
1. @import url('https://fonts.googleapis.com/css?
   family=Poppins:200,300,400,500,600,700,800,900&display=swap'
   );
2. *{
3.   font-family: 'Poppins',sans-serif;
4. }
5. form{
6.   background: #defcf9;  /* applying bgcolor */
7.   padding: 3em 4em 2em; /* applying padding : top,right-
   left,bottom */
8.   max-width: 400px;
9.   margin: 5px auto 0;
10.  box-shadow: 0 0 1em #845ec2;
11.  border-radius: 10px;
12.}
13..button {
14.  background-color: #bb8ae3;
15.  color: white; /* applying color */
16.  padding: 16px 20px; /* applying padding */
17.  margin: 8px 0;  /* applying margin */
18.  border: none;
19.  cursor: pointer;
20.  width: 50%;
21.  opacity: 0.8;
22.  border-radius: 5px;
23.}
24.input[type=text],input[type=password],input[type=email],
   select, textarea {
25.  width: 100%; /* applying full width */
26.  padding: 12px; /* applying padding */
27.  border: 1px solid #bb8ae3; /* border and its color */
28.  border-radius: 4px; /* Rounded borders */
29.  box-sizing: border-box; /* Make sure that padding and
   width stays in place */
30.  margin-top: 6px; /* Add a top margin */
31.  margin-bottom: 16px; /* Bottom margin */
32.  resize: vertical; /* Allow the user to vertically resize
   the textarea (not horizontally) */
33.}
34..button:hover {
```

```css
35.  opacity:1;
36.}
37.#container {
38.  height: 100%;
39.  width: 100%;
40.  display: flex;
41.}
42.#leftThing {
43.  width: 50%;
44.}
45.#rightThing {
46.  width: 50%;
47.}
```

8_script.js

```javascript
1. var mainApp = angular
2.     .module("mainApp", [])
3.     .controller('detailsOfStudent', function ($scope) {
4.         $scope.student = {
5.             first_name: "",
6.             middle_name: "",
7.             last_name: "",
8.             date_of_birth: "",
9.             course: "",
10.             gender: "",
11.             hobby: {
12.                 value1: "",
13.                 value2: "",
14.                 value3: ""
15.             },
16.             phone_number: "",
17.             address: "",
18.             email: "",
19.             password: "",
20.             re_password: "",
21.         };
22.     });
23.
24.mainApp.filter('capitalize', function () {
```

```
25.     return function (input) {
26.         return (angular.isString(input) && input.length >
   0) ? input.charAt(0).toUpperCase() +
   input.substr(1).toLowerCase() : input;
27.     }
28.});
29.
30.function validateForm() {
31.
32.     var firstName = document.getElementById("first_name");
33.     var lastName = document.getElementById("last_name");
34.     var email = document.getElementById("email");
35.     var password = document.getElementById("password");
36.     var rePassword = document.getElementById("rePassword");
37.     var checkName = /^[a-z]+$/i;
38.     var checkEmail = /[0-9]{2}[a-zA-Z]{3}[0-9]{3}
   @nirmauni.ac.in/;
39.     var checkPassword = /^(?=.\d)(?=.[a-z])(?=.*[A-Z]).
   {8,20}$/;
40.
41.     if (firstName.value.trim() == '' ||
   lastName.value.trim() == '') {
42.         alert("Please enter first name and last name :)");
43.         firstName.style.border = "solid 2px red";
44.         lastName.style.border = "solid 2px red";
45.         return false;
46.     }
47.     else if (!checkName.test(firstName.value) || !
   checkName.test(lastName.value)) {
48.         alert("Please enter name properly :)");
49.         firstName.style.border = "solid 2px red";
50.         lastName.style.border = "solid 2px red";
51.         return false;
52.     }
53.     else if (email.value == "" || !
   checkEmail.test(email.value)) {
54.         alert("Please enter valid email address [valid
   format is : DDCCCDD@nirmauni.ac.in]");
55.         email.style.border = "solid 2px red";
56.         return false;
57.     }
58.     else if (checkPassword.value.trim().length < 8) {
59.         alert("Password must contain 8 characters :)");
```
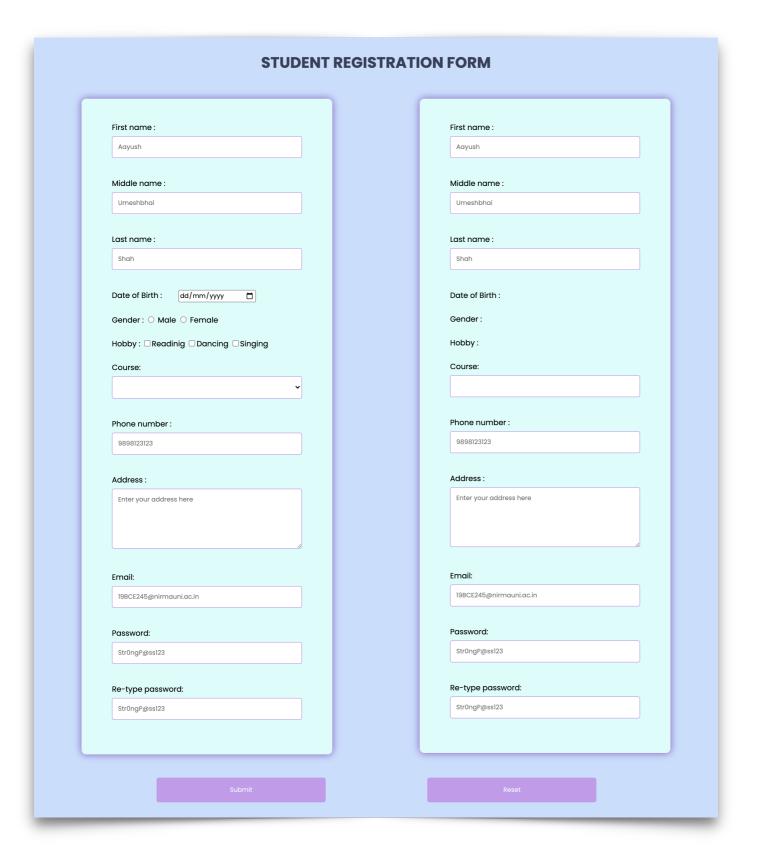
```
60.          password.style.border = "solid 2px red";
61.          return false;
62.      }
63.      else if (!checkPassword.test(Password.value)) {
64.          alert("Password must be a combination of uppercase
     letter, lowercase letter, and digits :)");
65.          password.style.border = "solid 2px red";
66.          return false;
67.      }
68.      else if (checkPassword.value != rePassword.value) {
69.          alert("Password doesn't match !");
70.          password.style.border = "solid 2px red";
71.          rePassword.style.border = "solid 2px red";
72.          return false;
73.      }
74.      else {
75.          return true;
76.      }
77.}
```

Output

In the output, We have to input left side. With the use of AngularJS filter concept, the proper output will be generated in right-side as we give input left side.

- Like, the first-name, middle-name and last-name fields will be *Capitalized*.

- The phone fields has number filter applied with limit of 10 digits so that if we give input digit greater than 10, it will remove all digits after 10th digit.

- Similarly the date field has date-filter applied, which will show the date which is selected by user in proper dd/mm/yyyy format.

- Also the courses field will show the chosen course by the user.

- The gender field will show the selected value of radio button.

- Hobby field will show the value of all the checkboxes which are selected by the user.

Before input :

STUDENT REGISTRATION FORM

First name :

Aayush

Middle name :

Umeshbhai

Last name :

Shah

Date of Birth :   dd/mm/yyyy

Gender : ○ Male ○ Female

Hobby : ☐ Readinig ☐ Dancing ☐ Singing

Course:

Phone number :

9898123123

Address :

Enter your address here

Email:

19BCE245@nirmauni.ac.in

Password:

Str0ngP@ss123

Re-type password:

Str0ngP@ss123

First name :

Aayush

Middle name :

Umeshbhai

Last name :

Shah

Date of Birth :

Gender :

Hobby :

Course:

Phone number :

9898123123

Address :

Enter your address here

Email:

19BCE245@nirmauni.ac.in

Password:

Str0ngP@ss123

Re-type password:

Str0ngP@ss123

Submit   Reset

After input :

STUDENT REGISTRATION FORM

Left form (input)	Right form (output)
First name : AAYUSH	First name : Aayush
Middle name : umeshbhai	Middle name : Umeshbhai
Last name : shAH	Last name : Shah
Date of Birth : 22/04/2021	Date of Birth : 22-04-2021
Gender : ● Male ○ Female	Gender : Male
Hobby : ☑Readinig ☐Dancing ☑Singing	Hobby : Reading Singinig
Course: B.Tech	Course: B.Tech
Phone number : 12345678901234	Phone number : 1234567890
Address : vadodara, gujarat	Address : Vadodara, gujarat
Email: 19BCE245@nirmaUNI.ac.in	Email: 19bce245@nirmauni.ac.in
Password:	Password: TYPED IN LOWERCASE
Re-type password:	Re-type password: CONVERTED IN UPPERCASE

Applied capitalize filter

Applied number filter

Applied lowercase filter

Applied uppercase filter

Submit   Reset

Conclusion

Here we have learned about Filter which is one of the useful concept of AngularJS and its application along with its option for various filters like lowercase, uppercase, number and I also crated custom *Capitalize* filter function.

• *AngularJS provides filters to transform data:*

   • **lowercase** *Format a string to lower case.*

   • **uppercase** *Format a string to upper case.*

   • **limitTo** *Limits an array/string, into a specified number of elements/characters.*

   • **number** *Format a number to a string.*

   • *date Format a date to a specified format.*

Filters can be added to expressions by using the pipe character **|**, followed by a filter.