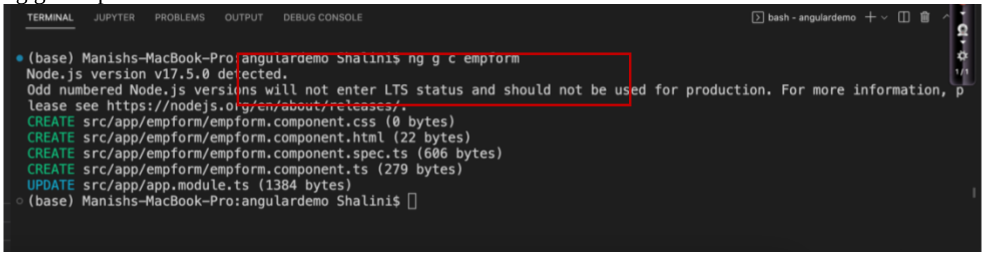
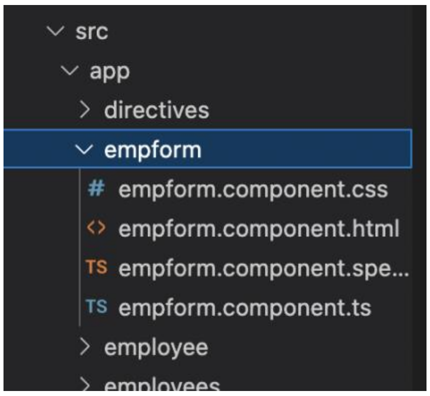
STEP 11: Template Driven Forms

1. Make sure to add FormsModule in app.module.ts file
2. Add empform component from within the angulardemo folder as follows:
   ng g c empform



```
(base) Manishs-MacBook-Pro:angulardemo Shalini$ ng g c empform
Node.js version v17.5.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, p
lease see https://nodejs.org/en/about/releases/.
CREATE src/app/empform/empform.component.css (0 bytes)
CREATE src/app/empform/empform.component.html (22 bytes)
CREATE src/app/empform/empform.component.spec.ts (606 bytes)
CREATE src/app/empform/empform.component.ts (279 bytes)
UPDATE src/app/app.module.ts (1384 bytes)
(base) Manishs-MacBook-Pro:angulardemo Shalini$
```



```
src
  app
    directives
    empform
      empform.component.css
      empform.component.html
      empform.component.spe...
      empform.component.ts
    employee
    employees
```

3. Add an employee property in employee.component.ts file:
   emp ={ename:’’}

4. Add the below code in employee.component.html file:
   <form>
           <input type="text" class="form-control" required/>
   </form>

5. Add the following on the form tag :

   When you imported the FormsModule in your component, Angular automatically created and attached an NgForm directive to the <form> tag in the template (because NgForm has the selector form that matches <form> elements).

   {{empform.value | json}}

   <form #empform ="ngForm">

   It prints nothing as angular ngForm does not tracks by default for all the controls.

6. To tell which controls to track add ngModel to all the controls:
   <input type="text" class="form-control" required **ngModel name=‘ename’**/>

   With ngModel name attribute is mandatory .

7. To see the state, angular tracks for, modify the input element as follows:

   REMOVE ngModel from above code and add below:
   <input type="text" class="form-control" required **[(ngModel)] = ’emp.ename’** name=‘ename ' **#ename** >

TODO: remove this: {{eid.className}}

8. Add custom CSS, to display for error messages:
   <input type="text" class="form-control **is-invalid** " required [(ngModel)] = ’emp.ename’ name=‘ename' #ename>

9. But red border should be applied conditionally only if control is invalid
   Use class binding of angular instead and remove **is-invalid** applied above
   The template reference variable (#name) is set to "ngModel" because that is the value of the NgModel.exportAs property. This property tells Angular how to link a reference variable to a directive.

```
<input type="text" class="form-control"
[class.is-invalid]="ename.invalid"
 required [(ngModel)] = 'emp.ename'  name='ename' #ename="ngModel">
```

   COMMENT {{ename.className}}

10. Now we don't want red border to be applied on page load without user interaction.
    So lets add the following as well :

```
[class.is-invalid]="ename.invalid && ename.touched"
```

11. Lets validate name with only alphabets

```
pattern="^[A-Za-z]+$"
```

    With the above code and [class.is-invalid] attribute it displays red border on the control.

12. Lets display error messages. Add the following in the div of name input element

```
<small class="text-danger" [class.d-none]="ename.valid || ename.untouched">
    Name required
</small>
```

    With class text-danger of bootstrap class, it displays error message in red.

    Now change the error message to display for required and pattern validation

```
 <small class="text-danger"
[class.d-none]="ename.valid || ename.untouched">

Name required and it should be only alphabets</small>
```

    Here it displays both the message for anything not valid.

13. Modify the above error messages for custom message:

```
<div *ngIf="ename.touched">
<div *ngIf="ename.errors && (ename.invalid)">
<small class="text-danger" *ngIf="ename.errors['required']">Name required</small>
<small class="text-danger" *ngIf="ename.errors['pattern']">
it can contain only alphabets and space</small>
</div>
</div>
```

14. Now comment all the above code and update the ts and html respectively:

```
      saveEmployee(emp:any)
 {
      console.log(emp.value)
  });

<div class="container">
    <h2>Add Employee</h2>
    <form #empform="ngForm" (submit)="saveEmployee(empform)">
      <div class="mb-3">
        <input type="text" class="form-control" [class.errborder]="eid.invalid && eid.touched" required
          placeholder="enter id" #eid="ngModel" ngModel name="eid" />
        <div *ngIf="eid.touched">
          <div *ngIf="eid.errors && (eid.invalid)">
            <small class="text-danger" *ngIf="eid.errors['required']">
              Id required </small>
          </div>
        </div>
      </div>
    <div class="mb-3">
        <input type="text" class="form-control" [class.is-invalid]="ename.invalid && ename.touched"
minlength="5"
            required placeholder="enter name" #ename="ngModel" ngModel name="ename" />
        <div *ngIf="ename.touched">
            <div *ngIf="ename.errors && (ename.invalid)">
                <small class="text-danger" *ngIf="ename.errors['required']">
                    ename required </small>
                <small class="text-danger" *ngIf="ename.errors['minlength']">
                    it should have minimin 5 characters</small>
            </div>
        </div>
    </div>
    <div class="mb-3">
        <input type="email" class="form-control" [class.is-invalid]="email.invalid && email.touched"
minlength="5"
            required placeholder="enter email" #email="ngModel" ngModel name="email" />
        <!-- <span>{{ename.className}}</span> -->
        <div *ngIf="email.touched">
            <div *ngIf="email.errors && (email.invalid)">
                <small class="text-danger" *ngIf="email.errors['required']">
                    email required </small>
            </div>
        </div>
    </div>
    <div class="mb-3">
        <input type="password" class="form-control" [class.is-invalid]="password.invalid && password.touched"
            minlength="5" required placeholder="enter password" #password="ngModel" ngModel
name="password" />
        <!-- <span>{{ename.className}}</span> -->
        <div *ngIf="password.touched">
            <div *ngIf="password.errors && (password.invalid)">
                <small class="text-danger" *ngIf="password.errors['required']">
                    password required </small>
            </div>
        </div>
    </div>
    <div class="mb-3">
        <input type="text" class="form-control" [class.is-invalid]="phone.invalid && phone.touched"
minlength="5"
            required placeholder="enter phone" #phone="ngModel" ngModel name="phone" />
        <!-- <span>{{ename.className}}</span> -->
        <div *ngIf="phone.touched">
            <div *ngIf="phone.errors && (phone.invalid)">
                <small class="text-danger" *ngIf="phone.errors['required']">
                    Phone required </small>
            </div>
        </div>
    </div>
    <div ngModelGroup="address">
        <div class="mb-3">
            <input type="text" class="form-control" placeholder="enter city" #city="ngModel" ngModel
name="city" />
        </div>
        <div class="mb-3">
            <input type="text" class="form-control" placeholder="enter country" required #country="ngModel"
ngModel
                name="country" />
            <div *ngIf="country.touched">
                <div *ngIf="country.errors && (country.invalid)">
                    <small class="text-danger" *ngIf="country.errors['required']">
                        Country required </small>
                </div>
            </div>
        </div>
        <div class="mb-3">
            <input type="text" class="form-control" placeholder="enter zipcode" #zipcode="ngModel" ngModel
```

```
                  name="zipcode" />
            </div>
        </div>
        <div class="mb-3">
            <button type="submit">Add Employee</button>
        </div>
    </form>
</div>
```

15. To add styles on textbox can add below in css file:

```
        .ng-valid[required], .ng-valid.required  {
            border-left: 5px solid #42A948;
          }
          .ng-invalid:not(form)  {
            border-left: 5px solid #a94442;
        }
```