Form validation steps:

1: open command prompt and make your project folder inside the prompt.

Exe- c:/users/dell/FirstAngularProject/formValidation>

2: npm install -g @angular/cli (for angular installation)

3: install bootstrap, and open server

4: inside app.component.html file create your login form

<div class="container">

  <div class="row">

    <div class="col-md-6 offset-md-3">

      <form [formGroup]="registerForm" (ngSubmit)="onSubmit()">

        <div class="form-group">

          <label for="firstname">First name: </label>

          <input formControlName="firstName" [ngClass]="{'is-invalid':submitted && registerForm.controls['firstName'].errors}" type="text" class="form-control">

          <div \*ngIf="submitted && registerForm.controls['firstName'].errors" class="text-danger">

            <div \*ngIf="submitted && registerForm.controls['firstName'].errors['required']">

                First name is required

            </div>

            <div \*ngIf="submitted && registerForm.controls['firstName'].errors['pattern']">

                Invalid First name

          </div>

          </div>

        </div>

        <div class="form-group">

          <label for="fistname">Last name: </label>

          <input formControlName="lastName" [ngClass]="{'is-invalid':submitted && registerForm.controls['lastName'].errors}" type="text" class="form-control">

          <div \*ngIf="submitted && registerForm.controls['lastName'].errors" class="text-danger">

            <div \*ngIf="submitted && registerForm.controls['lastName'].errors['required']">

                Last name is required

            </div>

            <div \*ngIf="submitted && registerForm.controls['lastName'].errors['pattern']">

                Invalid last name

            </div>

          </div>

        </div>

        <div class="form-group">

          <label for="firstname">Email address </label>

          <input formControlName="emailAddress" [ngClass]="{'is-invalid':submitted && registerForm.controls['emailAddress'].errors}" type="text" class="form-control">

          <div \*ngIf="submitted && registerForm.controls['emailAddress'].errors" class="text-danger">

            <div \*ngIf="submitted && registerForm.controls['emailAddress'].errors['required']">

                Email is required

            </div>

            <div \*ngIf="submitted && registerForm.controls['emailAddress'].errors['email']">

              Email invalid

            </div>

          </div>

        </div>

        <div class="form-group">

          <label for="firstname">Password: </label>

          <input formControlName="Password" [ngClass]="{'is-invalid':submitted && registerForm.controls['Password'].errors}" type="password" class="form-control">

          <div \*ngIf="submitted && registerForm.controls['Password'].errors" class="text-danger">

            <div \*ngIf="submitted && registerForm.controls['Password'].errors['required']">

                Password is required

            </div>

            <div \*ngIf="submitted && registerForm.controls['Password'].errors['minLength']">

              Minimum 8 characters

            </div>

            <label [ngClass]="registerForm.controls['password'].hasError('required') || registerForm.controls['password'].hasError('minlength')  ? 'text-danger' : 'text-success'">

              <i class="material-icons">

                {{ registerForm.controls['password'].hasError('required') ||

                registerForm.controls['password'].hasError('minlength') ? 'cancel' :

                'check\_circle' }}

              </i>

            Must be at least 8 characters!

          </label>

          </div>

        </div>

        <div class="form-group">

          <button class="btn btn-primary">

            Register

          </button>

        </div>

      </form>

    </div>

  </div>

</div>

<!-- .errors['minLength']  -->

5: inside app.component.ts file create your validation

import { Component } from '@angular/core';

import {FormBuilder,FormGroup,Validators} from '@angular/forms';

@Component({

  selector: 'app-root',

  templateUrl: './app.component.html',

  styleUrls: ['./app.component.css']

})

export class AppComponent {

  registerForm!:FormGroup

  title = 'formvalidation';

  submitted = false;

  constructor(private formBuilder:FormBuilder){}

  ngOnInit()

  {

    //validation

      this.registerForm = this.formBuilder.group({

      firstName:['',[Validators.required, Validators.maxLength(20),Validators.pattern("^[a-zA-Z]\*$")]],

      lastName:['',[Validators.required,Validators.pattern("^[a-zA-Z]\*$")]],

      emailAddress:['',[Validators.required, Validators.email]],

      Password:['',[Validators.required,  Validators.minLength(8)]]

    })

  }

  onSubmit(){

    this.submitted = true;

    if(this.registerForm.invalid){

      return

    }

    alert("success");

    if (this.registerForm.valid) {

      console.log(this.registerForm.value);

    }

  }

}