

```

import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';

import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { AddStudentComponent } from './components/add-student/add-student.component';
import { EditStudentComponent } from './components/edit-student/edit-student.component';
import { ListStudentComponent } from './components/list-student/list-student.component';
import { LoginStudentComponent } from './components/login-student/login-student.component';
import { RegistrationComponent } from './components/registration/registration.component';
import { NgbModule } from '@ng-bootstrap/ng-bootstrap';
import { HttpClientModule } from '@angular/common/http';
@NgModule({
  declarations: [
    AppComponent,
    AddStudentComponent,
    EditStudentComponent,
    ListStudentComponent,
    LoginStudentComponent,
    RegistrationComponent,
  ],
  imports: [BrowserModule,
    AppRoutingModule,
    NgbModule,
    HttpClientModule],
  providers: [],
  bootstrap: [AppComponent],
})
export class AppModule {}

```

```

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

@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent {
  title = 'A_AA_Uni_4_Bootstrap';
}

```

```

<h1>Student-Management</h1>
<nav class="navbar navbar-expand-lg bg-light">
  <div class="container-fluid">
    <a class="navbar-brand" href="#">Navbar</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarNav">
      <ul class="navbar-nav">
        <li class="nav-item"><a class="nav-link" routerLink="add">Add-Student</a></li>
        <li class="nav-item"><a class="nav-link" routerLink="list">List-Student</a></li>
        <li class="nav-item"><a class="nav-link" routerLink="edit">Edit-Student</a></li>
        <li class="nav-item"><a class="nav-link" routerLink="login">Login</a></li>
        <li class="nav-item"><a class="nav-link" routerLink="register">Register</a></li>
      </ul>
    </div>
  </div>
</nav>

<div class="container">
  <router-outlet></router-outlet>
</div>

```

```
{
  "students": [
    { "id": 1, "name": "student 1", "email": "student1@email.com" },
    { "id": 2, "name": "student 2", "email": "student2@email.com" },
    { "id": 3, "name": "student 3", "email": "student3@email.com" },
    { "id": 4, "name": "student 4", "email": "student4@email.com" },
    { "id": 5, "name": "student 5", "email": "student5@email.com" },
    { "id": 6, "name": "student 6", "email": "student6@email.com" }
  ]
}
```

```
import { NgModule } from '@angular/core';
import { RouterModule, Routes } from '@angular/router';
import { AddStudentComponent } from './components/add-student/add-student.component';
import { EditStudentComponent } from './components/edit-student/edit-student.component';
import { ListStudentComponent } from './components/list-student/list-student.component';
import { LoginStudentComponent } from './components/login-student/login-student.component';
import { RegistrationComponent } from './components/registration/registration.component';

const routes: Routes = [
  { path: 'add', component: AddStudentComponent },
  { path: 'list', component: ListStudentComponent },
  { path: 'edit', component: EditStudentComponent },
  { path: 'login', component: LoginStudentComponent },
  { path: 'register', component: RegistrationComponent },
];

@NgModule({
  imports: [RouterModule.forRoot(routes)],
  exports: [RouterModule]
})
export class AppRoutingModule { }
```

```

import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';

import { AppComponent } from './app.component';
import { ReactiveFormsModule } from '@angular/forms';
import { FormsModule } from '@angular/forms';
import { CurrencyPipe } from '@angular/common';

@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule,
    FormsModule,
    ReactiveFormsModule
  ],
  providers: [CurrencyPipe],
  bootstrap: [AppComponent]
})
export class AppModule { }

```

```

import { Component } from '@angular/core';
import { FormBuilder, FormControl, FormGroup, Validators } from '@angular/forms'
import { minLength } from '@rxweb/reactive-form-validators';
@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css'],
})
export class AppComponent {
  constructor(private formbuilder: FormBuilder) {}

  title = 'ang-react-regex';

  loginForm = this.formbuilder.group({
    email: new FormControl('', [Validators.required, Validators.email]),
    address: new FormControl('', [
      Validators.required,
      Validators.minLength(10),
      Validators.maxLength(40),
    ]),
    plz: new FormControl('', [Validators.required]),
    amount: new FormControl(null, [
      Validators.required,
      Validators.pattern(/^[0-9]+(\.[0-9]{1,2})?$/),
    ]),
  });

  get email() {
    this.loginForm.value
    return this.loginForm.get('email');
  }
  get address() {
    return this.loginForm.get('address');
  }
  get amount() {
    return this.loginForm.get('amount');
  }

  save() {
    console.log('log Value: ' + this.loginForm.value);
    console.log('log valu Changes: ' + this.loginForm.valueChanges);
    console.log('log statusChanges: ' + this.loginForm.statusChanges);
  }
}

```

```

<h1>Reactive Form Validation with Regex</h1>
<p>{{ loginForm.value | json }}</p>

<div class="container-sm">
  <form [formGroup]="loginForm" (ngSubmit)="save()">
    <div class="card-body">
      <div class="row mb-4">
        <div class="col-4 bg-light p-3 border">
          <!--Id-->
          <label class="form-label">email</label>
          <input type="email" formControlName="email" class="form-control" />
          <ng-container
            *ngIf=" loginForm.controls['email'].dirty || loginForm.controls['email'].touched">
            <div>style="color: red" font-size:10px class="error" *ngIf="
              loginForm.controls['email'].errors">Es muss eine gültige email angegeben werden</div>
          </ng-container>
        </div>

        <div class="col-4 bg-light p-3 border">
          <!--RoomNumber-->
          <label class="form-label">Address</label>
          <input type="text" formControlName="address" class="form-control" />
          <ng-container
            *ngIf=" loginForm.controls['address'].dirty ||loginForm.controls['address'].touched">
            <div> style="color: red" font-size:10px class="error" *ngIf="
              loginForm.controls['address'].errors">Zeichenlänge mindestens 10 maximal 40</div>
          </ng-container>
        </div>
      </div>

      <div class="col-4 bg-light p-3 border">
        <!--RoomNumber-->
        <label class="form-label">PLZ</label>
        <input type="text" formControlName="plz" class="form-control"
          (keypress)="($event.charCode >= 48 && $event.charCode < 58)" />
        <ng-container ng-container
          *ngIf=" loginForm.controls['plz'].dirty || loginForm.controls['plz'].touched">
          <div> style="color: red" font-size:10px class="error" *ngIf="
            loginForm.controls['address'].errors">PLZ mindesten 5 Zeichen</div>
        </ng-container>
      </div>
    </div>
  </form>

```

```

<div class="col-4 bg-light p-3 border">
  <!--RoomNumber-->
  <label class="form-label">Amount</label>
  <input type="number" step="0.01" formControlName="amount" class="form-control" />
  <ng-container ng-container
    *ngIf=" loginForm.controls['amount'].dirty ||loginForm.controls['amount'].touched">
    <div>style="color: red" font-size:10px class="error" *ngIf="
      loginForm.controls['amount'].errors">PLZ mindesten 5 Zeichen</div>
    </ng-container>
  </div>
</div>

<div class="card-footer">
  <button [disabled]="loginForm.invalid" type="submit" class="btn btn-primary">
    Submit
  </button>
</div>
</form>
</div>

<br>

<div class="container">
<div class="row" >
  <div class="col-sm-6 mb-0
">
    <div class="card text-bg-success mb-4">
      <div class="card-body">
        <h5 class="card-title">Special title treatment</h5>
        <p class="card-text">With supporting text below as a natural lead-in to additional content.</p>
        <a href="#" class="btn btn-primary">Go somewhere</a>
      </div>
    </div>
  </div>
  <div class="col-sm-6 mb-1">
    <div class="card text-bg-warning mb-4">
      <div class="card-body">
        <h5 class="card-title">Special title treatment</h5>
        <p class="card-text">With supporting text below as a natural lead-in to additional content.</p>
        <a href="#" class="btn btn-primary">Go somewhere</a>
      </div>
    </div>
  </div>
</div>
</div>
</div>

```