



/ng new crud-service-angular

/crud-service-angular> ng g c componentes/alumno-frm

/crud-service-angular> ng g c componentes/alumno-tbl

/crud-service-angular> ng g class modelos/alumno

/crud-service-angular> ng g s servicios/alumno



## /crud-service-angular> ng serve -o /crud-service-angular> ng build --prod

```
/src/index.html
<!doctype html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <title>ServiceAngularLab</title>
 <base href="/">
 <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"</pre>
integrity="sha384-gg0yR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQU0hcWr7x9JvoRxT2MZw1T" crossori-
gin="anonymous">
 <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.8.1/css/all.css" integrity="sha384-</pre>
50oBUHEmvpQ+11W4y57PTFmhCaXp0ML5d60M1M7uH2+nqUivzIebhndOJK28anvf" crossorigin="anonymous">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="icon" type="image/x-icon" href="favicon.ico">
</head>
<body>
 <app-root></app-root>
</body>
</html>
```



```
/src/styles.css
body{
    background: #C9D6FF; /* fallback for old browsers */
    background: -webkit-linear-gradient(to right, #E2E2E2, #C9D6FF); /* Chrome 10-25, Safari 5.1-6 */
    background: linear-gradient(to right, #E2E2E2, #C9D6FF);
    /* W3C, IE 10+/ Edge, Firefox 16+, Chrome 26+, Opera 12+, Safari 7+ */
```



## /src/app/app-module.ts

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';
import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { AlumnoFrmComponent } from './componentes/alumno-frm/alumno-frm.component';
import { AlumnoTblComponent } from './componentes/alumno-tbl/alumno-tbl.component';
import { HttpClientModule } from '@angular/common/http';
import { FormsModule } from '@angular/forms';
@NgModule({
 declarations: [
   AppComponent,
   AlumnoFrmComponent,
   AlumnoTblComponent
  ],
 imports: [
   BrowserModule,
   AppRoutingModule,
    HttpClientModule,
    FormsModule
  ],
 providers: [],
 bootstrap: [AppComponent]
export class AppModule { }
```



/src/app/app.component.html

```
<nav class="navbar navbar-light bg-light">
 <span class="navbar-brand mb-0 h1">
   <img src="assets/image/logocolor.png" alt="">
<div class="container">
 <div class="row">
   <div class="col-4">
     <app-alumno-frm [alumno]="alumno" [esNuevo]="esNuevo" (crearAlumno)="registrarAlumno($event)"</pre>
(guardarAlumno)="guardarAlumno($event)"></app-alumno-frm>
   <div class="col-8">
     <app-alumno-tbl
      [alumnos]="alumnos"
      (editarAlumno)="modificarAlumno($event)"
      (eliminarAlumno)="eliminarAlumno($event)"
      ></app-alumno-tbl>
 <div class="row">
   <div class="col-12">
     <div class="alert alert-secondary mt-2" role="alert">
       {{ responde.message }}
```



## /src/app/app.component.ts

```
import { Component, OnInit } from '@angular/core';
import { AlumnoService } from './servicios/alumno.service';
import { Alumno } from './modelos/alumno';
@Component({
 selector: 'app-root',
 templateUrl: './app.component.html',
 styleUrls: ['./app.component.css']
export class AppComponent implements OnInit {
 alumnos: Alumno[];
 alumno: Alumno;
 responde: { message: string };
 esNuevo = true;
 constructor(private alumnoService: AlumnoService) { }
 ngOnInit() {
   this.obtenerAlumnos();
   this.responde = { message: '' };
   this.alumno = new Alumno();
```



```
obtenerAlumnos() {
 this.alumnoService.leerAlumnos().subscribe(res => {
    this.alumnos = res as Alumno[];
  });
registrarAlumno(alumno) {
 this.alumnoService.crearAlumno(alumno).subscribe(res => {
    this.responde = res as { message: string };
   this.obtenerAlumnos();
  });
modificarAlumno(alumno) {
  this.alumno = alumno;
  this.esNuevo = false;
guardarAlumno(alumno) {
  this.alumnoService.modificarAlumno(alumno).subscribe(res => {
    this.responde = res as { message: string };
    this.obtenerAlumnos();
  });
  this.esNuevo = true;
```



```
eliminarAlumno(id: number) {
 if (confirm('Eliminar ?')) {
    this.alumnoService.eliminarAlumno(id).subscribe(res => {
     this.responde = res as { message: string };
     this.obtenerAlumnos();
    });
```

/src/app/modelos/alumno.ts

```
export class Alumno {
   id: number;
   nombres: string;
   apellidos: string;
   doc_identidad: string;
```



```
/src/app/servicios/alumno.service.ts
```

```
import { Injectable } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { Alumno } from '../modelos/alumno';
@Injectable({
 providedIn: 'root'
export class AlumnoService {
 URL_API = 'http://localhost:3000/api-cognos/alumnos';
 constructor(private http: HttpClient) { }
 leerAlumnos() {
    return this.http.get(this.URL_API);
 crearAlumno(alumno: Alumno) {
   return this.http.post(this.URL_API, alumno);
 modificarAlumno(alumno: Alumno) {
    return this.http.put(`${this.URL_API}/${alumno.id}`, alumno);
 eliminarAlumno(id: Number) {
   return this.http.delete(`${this.URL_API}/${id}`);
```



/src/app/componentes/alumno-frm.component.html

```
<div class="card mt-2">
 <div class="card-header">
   <h5>Alumno</h5>
 <div class="card-body">
     <div class="form-group">
       <input type="text" class="form-control" name="nombres" [(ngModel)]='alumno.nombres' placeholder="Nombres">
     <div class="form-group">
       <input type="text" class="form-control" name="apellidos" [(ngModel)]='alumno.apellidos' placeholder="Apellidos">
     <div class="form-group">
       <input type="text" class="form-control" name="doc_identidad" [(ngModel)]='alumno.doc_identidad' placeholder="Doc.Identidad">
     <div class="form-group">
       <button class="btn btn-primary btn-block" (click)="registrar()" *ngIf="esNuevo">
         <i class="fas fa-user-plus"></i> Crear
       <button class="btn btn-success btn-block" (click)="guardar()" *ngIf="!esNuevo">
           <i class="fas fa-user-edit"></i> Modificar
   </form>
```



```
/src/app/componentes/alumno-frm.component.ts
import { Component, OnInit, Input, Output, EventEmitter } from '@angular/core';
import { Alumno } from 'src/app/modelos/alumno';
@Component({
 selector: 'app-alumno-frm',
 templateUrl: './alumno-frm.component.html',
 styleUrls: ['./alumno-frm.component.css']
export class AlumnoFrmComponent implements OnInit {
 @Output() crearAlumno = new EventEmitter<Alumno>();
 @Output() guardarAlumno = new EventEmitter<Alumno>();
 @Input() alumno: Alumno;
 @Input() esNuevo: boolean;
 constructor() { }
 ngOnInit() { }
 registrar() {
   if (this.alumno.nombres && this.alumno.apellidos && this.alumno.doc identidad) {
     this.crearAlumno.emit(this.alumno);
     this.alumno = new Alumno();
    } else {
      alert('ERROR, Campos requeridos');
```



```
guardar() {
  if (this.alumno.nombres && this.alumno.apellidos && this.alumno.doc_identidad) {
    this.guardarAlumno.emit(this.alumno);
    this.alumno = new Alumno();
  } else {
    alert('ERROR,Campos requeridos');
  }
}
```



/src/app/componentes/alumno-tbl.component.html

```
<thead class="thead-dark">
   ID
   Nombres
   Apellidos
   Doc.Identidad
  {{alumno.id}}
   {{alumno.nombres}}
   {{alumno.apellidos}}
   {{alumno.doc_identidad}}
     <button class="btn btn-success" (click)='editar(alumno)'><i class="fas fa-user-edit"></i></button>
    <button class="btn btn-danger ml-2" (click)='eliminar(alumno.id)'><i class="fas fa-user-minus"></i></button>
```



/src/app/componentes/alumno-tbl.component.ts

```
import { Component, OnInit, Input, Output, EventEmitter } from '@angular/core';
import { Alumno } from 'src/app/modelos/alumno';
@Component({
 selector: 'app-alumno-tbl',
 templateUrl: './alumno-tbl.component.html',
 styleUrls: ['./alumno-tbl.component.css']
export class AlumnoTblComponent implements OnInit {
 @Input() alumnos: Alumno[];
 @Output() editarAlumno = new EventEmitter<Alumno>();
 @Output() eliminarAlumno = new EventEmitter<number>();
 constructor() { }
 ngOnInit() { }
 editar(alumno: Alumno) {
    this.editarAlumno.emit(alumno);
 eliminar(id: number) {
   this.eliminarAlumno.emit(id);
```

COGNOS