

Student Management System Architecture

Main Technologies: Spring boot 1.5.7, Angular 4.2.3, Mongo DB 3

System can be divided in to two parts.

- Backend – Spring boot REST API
- Frontend – Angular 4

Backend – Spring boot REST API

Spring boot REST API provides functionality of CRUD (CREATE, READ, UPDATE, DELETE) operations.

Get all students

GET: /api/v1/students

Get student by id

GET: /api/v1/students/{id}

Create a new student

POST: /api/v1/students

Update existing student

PUT: /api/v1/students/{id}

Delete existing student

DELETE: /api/v1/students/{id}

Frontend – Angular 4

Frontend part is developed separately. Frontend is separated to header and student sections. Bootstrap API is used to style the frontend.

Frontend and backend integration

First build angular 4 application using **ng build –prod** command and put all build java script and html templates files to spring boot static folder.

After putting frontend files then build the spring boot application using maven commands.

- 1) **mvn clean package**
- 2) go to the target folder – **cd target**
- 3) To run application **java –jar StudentManagementSystem-0.0.1-SNAPSHOT.jar**



The screenshot shows the 'Admin Console' of the 'Student Management System'. It features a 'Create New Student' form with the following fields: 'First Name' (text input), 'Last Name' (text input), 'Age' (dropdown menu with '5' selected), and 'Gender' (dropdown menu with 'MALE' selected). A 'CREATE' button is located at the bottom of the form.