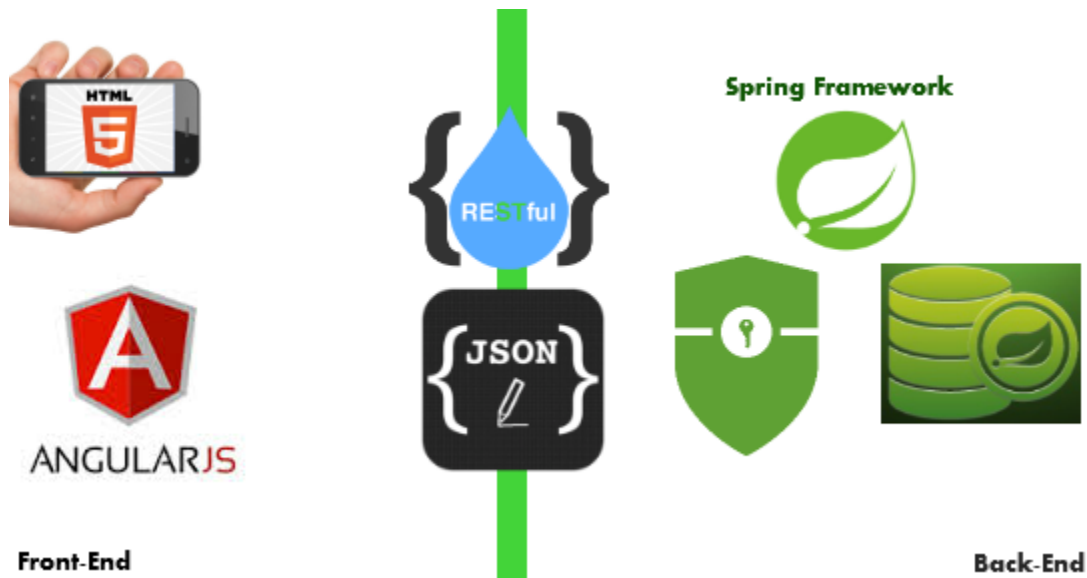


Student Management System Architecture



Main Technologies: Spring boot 1.5.7, Angular 4.2.3, Mongo DB 3.4

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 with 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 templates 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 a web application interface with a dark header bar. On the left of the header is 'Student Management System' and on the right is 'Admin Console'. Below the header, the main content area is titled 'Create New Student'. It contains four input fields: 'First Name :', 'Last Name :', 'Age :', and 'Gender :'. The 'Age' field has a dropdown menu with '5' selected. The 'Gender' field has a dropdown menu with 'MALE' selected. At the bottom of the form is a light gray button labeled 'CREATE'.