**Business Use case – Problem Statement**

Build a School Web Application

**Frontend using:** Angular/React based on training

Frontend Microservices:

1. UI Microservice

**Backend using:** Java Springboot Microservices

Backend Microservices:

* Facility of Login for Student.
* Facility of Login for Admin Staff.
* Facility to ADD / Update Student and teacher details by Admin.
* Facility for Student to Apply Leave, Pay Fees, drop message to teacher.
* Facility for student to update profile.
* Facility to see all teachers’ detail.

**Database**: MySQL

**Design:**

Only registered student should be able to Apply Leave, Pay Fees, drop message to teacher. (No Guest User)

Only Admin should be able to ADD / Update student, and teacher details. (No Guest User)

Session based User Login. (User should automatically logout after 30 min)

**UI Screens:**

* Home Page
* First page that will be visible on visiting the site. It will contain Login buttons, list all the teachers working in school.
* Login Page
* Create a login page for student / Admin staff.
* Student and Teacher registration Page
* This page will be used to ADD / Update student, and teacher details.
* Student Page
* Student can Apply Leave, Pay Fees, drop message to teacher.
* Student Profile Page
* Student can update profile.

**Features to be Implemented:**

1) JWT

2)Maven

3)Unit Test Case for Frontend and backend using Jest and Junit

**Application Deployment**

Case 1: Deploy the Microservice Application (Non dockerised) on Local System using separate Jenkins Pipelines for each microservice.

Case 2: Deploy the Dockerised Microservice Application on VM System provided for Kubernetes using separate Jenkins Pipelines for each microservice.

**Tools for testing API:**

* Postman
* Thunder Client VS code extension: <https://marketplace.visualstudio.com/items?itemName=rangav.vscode-thunder-client>

For creating DB Schema -<https://dbdiagram.io/home>

**Deliverables**

* High Level Design document covering the details of the flow, design and components created.
* DB Schema Design
* Source Code with Working Application
* Deployment Automation