Bytexl's Guided Project: step-by-step-Todo-app

Project Overview:

This project aims to help students learn front-end and back-end programming in a clear and accessible way, guiding them through the development of a simple to-do app step by step.

Prerequisites

Students should have a basic understanding of Java and JavaScript.

Learning Outcomes:

1. **Understanding Front-End Development**: Students will learn how to create user interfaces using HTML, CSS, and JavaScript.

2. **Back-End Programming Skills**: Students will gain experience in building server-side applications, learning how to use Java (or a Java framework) to handle requests and manage data.

3. **Database Integration**: Students will understand how to connect their application to a database, performing CRUD (Create, Read, Update, Delete) operations.

4. **API Development**: Students will learn how to create and consume APIs, enabling communication between the front end and back end.

Skills Practiced:

1. **HTML/CSS Proficiency:** Building the user interface to create structured and styled layouts.

2. **JavaScript Programming**: Writing client-side scripts for interactive features and dynamic content.

3. **Java Development:** Utilizing Java for back-end logic and server-side functionality.

4. **Database Management:** Designing and interacting with databases, using SQL or an ORM (Object-Relational Mapping) tool.

5. **API Development and Consumption:** Creating RESTful APIs and making API calls from the front end.

Course Structure:

Introduction and Course Overview

- Gain insight into the project's goals and acquire fundamental knowledge of full-stack development.

- Learn how to perform CRUD operations using RESTful APIs.

Project Structure

Task 1: Set up a React-based front-end application.

Task 2: Develop a Spring Boot application for the back end.

Task 3: Create RESTful APIs in the back end and use Axios to consume these APIs in the React front-end application.

Objective Summary:

By the end of this course student will be able to develop a basic front-end and back-end application with minimal requirements using Spring Boot and React.js.