

Objectives

To build an application to handle data on students learning Zumba, which will manage the enrollment of students in the correct batch and provide appropriate timing for their classes

Prerequisites

- Java
- Servlets
- JSP
- Maven
- JDBC
- MySQL

Problem Statement and Motivation

Problem Statement:

This assignment is designed to help you understand how to plan and develop the back end for a given problem, gain hands-on experience designing server-side controller structures with Servlets, and implement the database connections to perform CRUD operations.

Real-World Scenario:

Rohit is a Zumba Instructor. He takes multiple sessions during the day, dividing his participants into batches that run in the morning and evening. To manage his participants, he needs a software solution to record the details of his participants and batches. Luckily, his friend Mike runs a software company. Rohit has requested that he develop a backend solution to manage his participants and batches.

Skills used in the project and their usage in the industry are given below:

Backend:

Backend development helps manage all the functionalities of an application.

Servlets and Maven:

Maven and Servlets work together to establish a modular development scheme for the application to ease communication between different Java classes.

JDBC:

It is one of the most popular libraries in Java and helps simplify database communication and data transfer between the database and Java.

JSP:

It eases the task of converting Java data or Objects into HTML or CSS data

Task (Activities)

1. Create a Dynamic Web Project in Eclipse and configure Maven
2. Create Java Classes for participants and batches
3. Create Servlets for participants and batches related to communication
4. Create HTML Pages for CRUD operations related to batches and participants
5. Perform CRUD operations using database methods using JDBC
6. Create JSP Pages for query parameters
7. Build and Run the Project on the Apache Tomcat web server
8. Package the project as a Jar file using Maven Package Goal