Developing a Backend Admin for Learner's Academy

The code for this project is hosted at
https://github.com/keerthana-777/learners-academy.git

This project aims to design and **Develop a Backend Administrative portal for the Learner's Academy** using Java EE technologies developed by **Keerthana Bandari.**

I had developed it as a project of phase-II for the Become a back-end expert course. The goal of this project is to apply servlet, JSP and JDBC concepts.

This document contains sections for:
- Sprint planning and Task completion
- Core concepts used in project
- Flow of the Application.
- Demonstrating the product capabilities, appearance, and user interactions.
- Unique Selling Points of the Application
- Conclusions

Sprints planning and Task completion:

The project is planned to be completed in 3 sprints and the duration is 3 weeks. Each sprint is planned to be completed within a week.

Tasks assumed to be completed in the 1st sprint is:
- Generating the flow of the application through flow chart.
- Initializing git repository to track changes in order to progress the development.
- Writing the Java program in eclipse to fulfill the requirements of the project.
- Testing the Java code with various kinds of User input and tracking output.
- Delivering a potentially releasable product.

Tasks assumed to be completed in the 2nd sprint is:

- Developing the additional code/features specified by the user.
- Testing the Java code against various User inputs and tracking output.
- Delivering a potentially releasable product.

Tasks assumed to be completed in the 3rd sprint is:

- Developing the additional code/features specified by the user.
- Connecting the local repository to remote and pushing the code to GitHub.
- Making this specification document to emphasize the application capabilities, representation, and user interactions.
- Delivering a potentially releasable high-end quality product.

Core concepts used in project:

- ➢ **JAVA:**

- java has been one of the most popular programming languages for many years.
- Java is Object Oriented. However, it is not considered as pure object-oriented as it provides support for primitive data types (like int, char, etc)
- The Java codes are first compiled into byte code (machine-independent code). Then the byte code runs on **J**ava **V**irtual **M**achine (**JVM**) regardless of the underlying architecture.

- ➢ **SERVLET:**

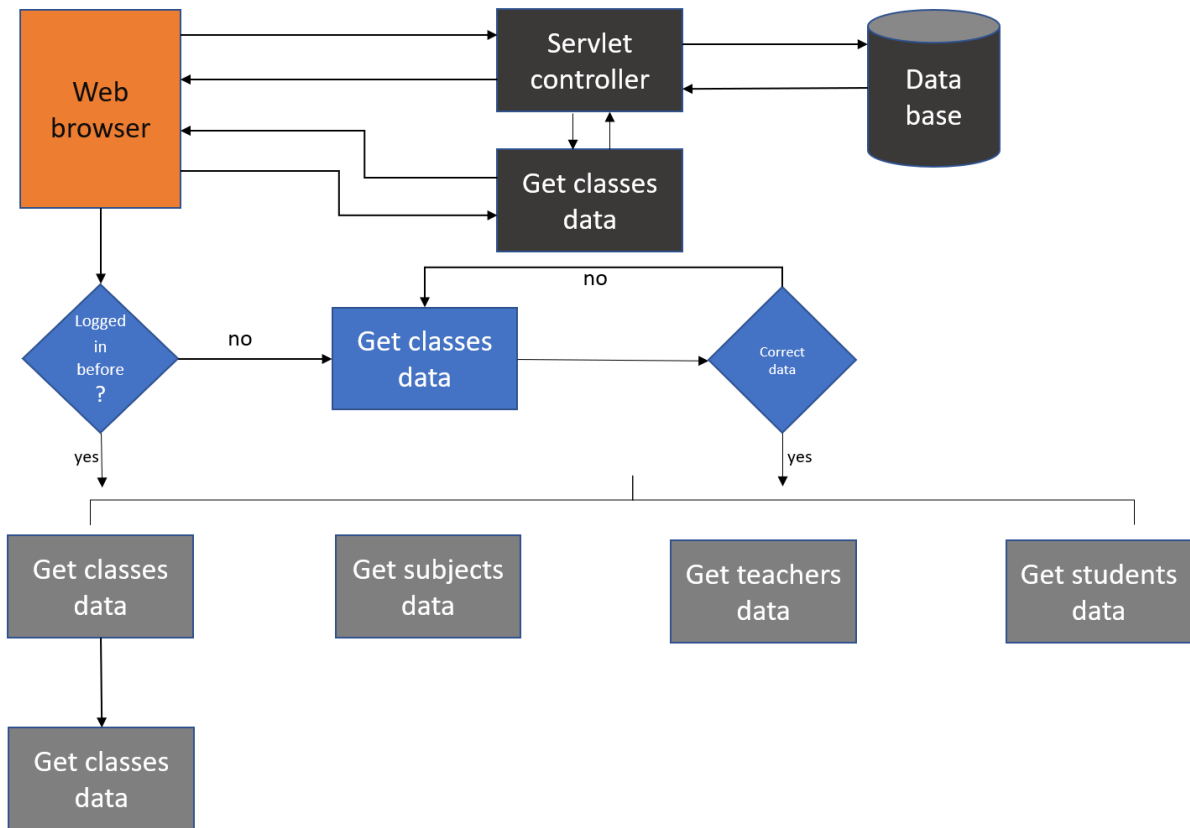 - to do the business logic and works a controller for the project.

- ➢ **JSP:**

  - to handle the presentation view.

- ➢ **SQL**:

- To create and manage the database.

➢ **JDBC:**

- to make operations on the database for the project.

➢ **CSS:**

- to format the contents.

➢ **phpMyAdmin:**

- to administrate and manage the database manually.

➢ **Eclipse:**

- to write and run the code.

➢ **Tomcat:**

- to run and deploy servlet application.

Flow of the Application:

Output screenshots:

Admin Login

Username :

admin

Password :

•••••

Login

☑ Remember me

**Administrative
Academy Portal**

Classes

Subjects

Teachers

Students

Log out

Classes

Section	Subject	Teacher	Time	List of Students
1	English	Radha Krishnan	9:00	List
3	Mathematics	R K	11:30	List

Administrative Academy Portal

Classes

Subjects

Teachers

Students

Log out

Students of English class section 1

First Name	Last Name	age
Keerthana	Bandari	21
Harshitha	Vutla	21
Khanwal	Miryalkar	24

Administrative Academy Portal

Classes

Subjects

Teachers

Students

Log out

Students of Mathematics class section 3

First Name	Last Name	age
Shivmani	Manda	23
Pradeep	Mutyalwar	18
Vedhasree	Nagunuri	24

**Administrative
Academy Portal**

Classes

Subjects

Teachers

Students

Log out

Subjects

Name	Shortcut
English	ENG
Mathematics	MATH

Administrative Academy Portal

Classes

Subjects

Teachers

Students

Log out

Teachers

First Name	Last Name	age
Radha	Krishnan	45
R	K	66

Administrative Academy Portal

Classes

Subjects

Teachers

Students

Log out

Students

First Name	Last Name	age
Keerthana	Bandari	21
Shivmani	Manda	23
Harshitha	Vutla	21
Pradeep	Mutyalwar	18
Khanwal	Miryalkar	24
Vedhasree	Nagunuri	24

Step 6: Pushing the code to GitHub repository:

- Open your command prompt and navigate to the folder where you have created your files.

  Command: cd <folder path>

- Initialize repository using the following command:

  Command: git init

- Add all the files to your git repository using the following command:

  Command: git add .

- Commit the changes using the following command:

  Command: git commit   -m <commit message>

- Push the files to the folder you initially created using the following command:

  Command: git push -u origin master

  Github: https://github.com/keerthana-777/learners-academy.git

Unique Selling Points of the Application:

1. The application is designed to improvise the backend skills and it mainly focuses on developing a server-hosted application.

2. The application is only provided with the admin credentials as per the admin rules.

3. The application consists of admin login, classes, subjects, teachers, students.

4. The admin contains only one username and password i.e., username: **admin**, password: **admin**

5. The classes consist of classes in which it contains students of each section.

6. The application uses java as backend to develop java servlet pages (JSP) and CSS to create some style sheets to decorate the application

Conclusions:

Further enhancements to the application can be made which may include:

- Entering the data to the table from the application.
- Creating the attendance-based registration for the teacher login.
- Providing the students to the read-only mode for the students to view their data.
- Creating the application user-friendly.