

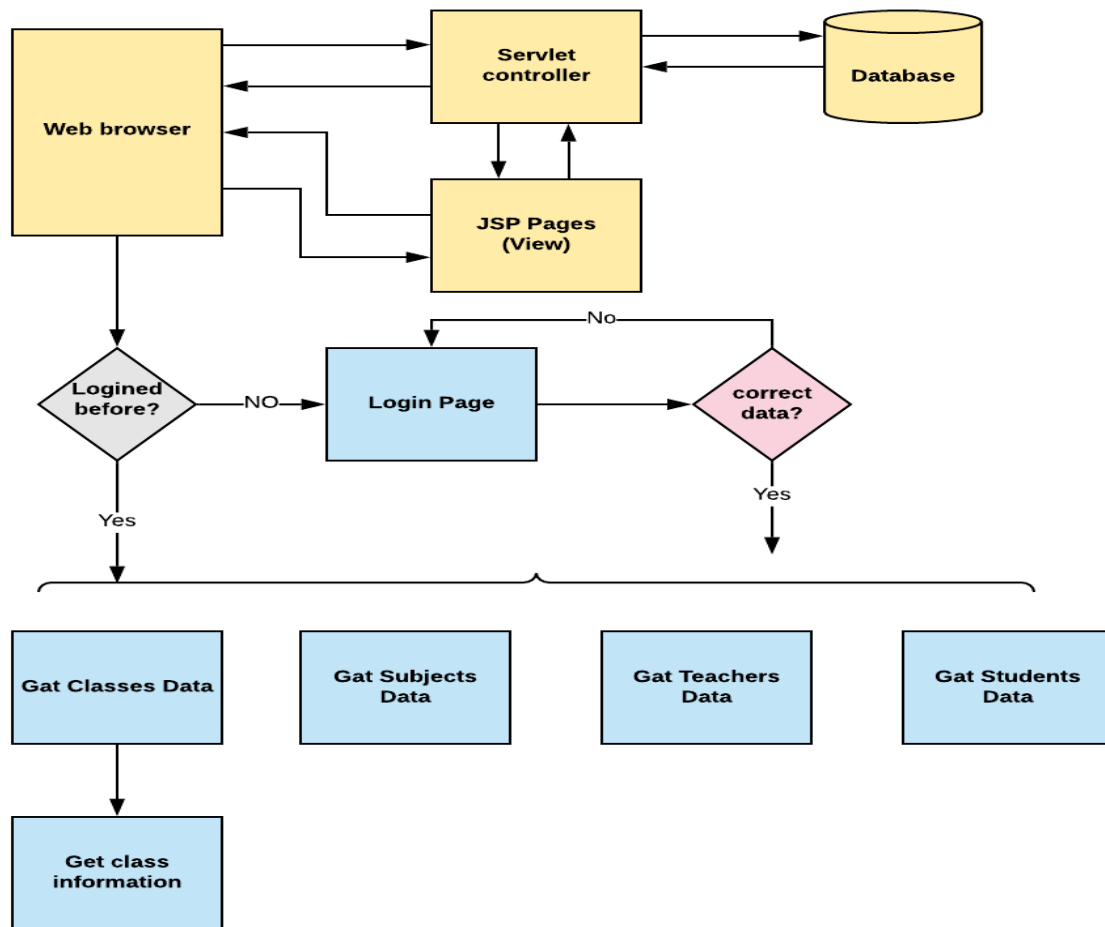
Developing a Backend Admin for Learner's Academy

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Sprint Planning:

S. No	Task Name	Features	Duration	Status
1	Spirit 1	<ul style="list-style-type: none">Creating a Dynamic Web project.Developing the admin login page, List of Class, Subjects, Teachers.Connecting them to Database.	5 Days	Completed
2	Dynamic web project and designing the admin login page	<ul style="list-style-type: none">Creating a Dynamic Web Project.Coding for Admin Login page.	2 Day	Completed
3	Designing the List of Classes	Coding list of classes and providing option for editing and connecting them Database	1 Day	Completed
4	Designing the List of subjects	Coding list of subjects and providing option for editing and connecting them Database	1 Day	Completed
5	Designing the List of Teachers	Coding list of teachers and providing option for editing and connecting them Database	1 Day	Completed
6	Spirit 2	Coding for List of students and logging out	5 Days	Completed
7	Designing the List of students	Coding list of students and providing option for editing and connecting them Database	2 Days	Completed
8	Designing the logging out Procedure	Coding for logging out of the admin page	1 Day	Completed
9	Testing	Testing the code whether it is working properly or not	1 Day	Completed
10	Documentations	Preparing a documentation for the application developed	1 Day	Completed

Flow Chart:



Application Flow:

- Whenever the application is opened and admin login interface will be displayed, the admin needs to login into the application with proper credentials.
- Once the admin is logged in to the application a list of classes will be display besides multiple option of subjects, teachers, students and logout.
- If one of the options, say subjects is selected then a list od subjects will be displayed which are already saved in the database, with multiple option like delete, edit and create a subject.
- If the option teachers is selected a list of teachers with there assigned class from the database will be displayed, with multiple option delete, edit and create a teachers data.
- If the students is selected a list of students with their plan schedule will be displayed.
- If the option logout is select the admin will be logged out from the application.

Core Concepts:

JSP: JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JSTL, etc.

JSP Scriptlet tag (Scripting elements): In JSP, java code can be written inside the jsp page using the scriptlet tag. Let's see what the scripting elements are first.

JSP Scripting elements: The scripting elements provides the ability to insert java code inside the jsp. There are three types of scripting elements:

- scriptlet tag
- expression tag
- declaration tag

JSP Implicit Objects: There are 9 jsp implicit objects. These objects are created by the web container that are available to all the jsp pages. The available implicit objects are out, request, config, session, application etc.

JSP directives: The jsp directives are messages that tells the web container how to translate a JSP page into the corresponding servlet. There are three types of directives:

- page directive
- include directive
- taglib directive

Exception Handling in JSP: The exception is normally an object that is thrown at runtime. Exception Handling is the process to handle the runtime errors. There may occur exception any time in your web application. So, handling exceptions is a safer side for the web developer. In JSP, there are two ways to perform exception handling:

- By `errorPage` and `isErrorPage` attributes of page directive
- By `<error-page>` element in web.xml file

JSP Action Tags: There are many JSP action tags or elements. Each JSP action tag is used to perform some specific tasks. The action tags are used to control the flow between pages and to use Java Bean.

JSTL (JSP Standard Tag Library): The JSP Standard Tag Library (JSTL) represents a set of tags to simplify the JSP development. Advantage of JSTL

- Fast Development JSTL provides many tags that simplify the JSP.
- Code Reusability We can use the JSTL tags on various pages.
- No need to use scriptlet tag It avoids the use of scriptlet tag.

Conclusion:

In the program an application has been developed with a duration of two semesters. This application makes handling the data of the learner's academy. All the data about the classes, subject, teachers, students and their schedule are maintained. The admin can login through a User ID and password and manipulated the data.

Unique selling points:

- Scheduled timetables for the teachers and students can be maintained easily.
- The data of the subjects, classes, students and teachers can be edited easily.
- High security for the data as the admin only can access the data.
- Searching for any data about classes, subject, students and teachers is made easy.