Criterion B-Design

DATA BEFORE AND AFTER NORMALIZATION

BEFORE NORMALIZATION

Store of Details (Data Tables)

Field Name	Data Type	Size (Characters)	Description
admin_id	Integer	11	Admin UID
admin_user_name	String/Alphanumeric/Special Characters	100	Admin username to login
admin_password	String/Alphanumeric/Special Characters	150	Admin password to login
attendance_id	Integer	11	ID in attendance table
student_id	Integer	11	Student UID
attendance_status	Enum(Present or Absent)	-	Attendance status of student
attendance_date	Date	-	Date of attendance
teacher_id	Integer	11	Teacher UID
grade_id	Integer	11	Grade UID
grade_name	String/Alphanumeric/Special Characters	10	Classes and Sections
student_id	Integer	11	Student UID
student_name	String/Alphanumeric/Special Characters	150	Name of student
student_roll_number	Integer	11	Student roll number
student_dob	Date	-	Date of birth of student
student_grade_id	Integer	11	Student grade UID
teacher_id	Integer	11	Teacher UID
teacher_name	String/Alphanumeric/Special Characters	150	Name of Teacher
teacher_address	String	-	Address of the teacher

teacher_emailid	String/Alphanumeric/Special Characters	100	Teacher email ID
teacher_password	String/Alphanumeric/Special Characters	100	Password of teacher account
teacher_qualification	String/Alphanumeric/Special Characters	100	Teacher qualification
teacher_doj	Date	-	Teacher date of joining
teacher_image	String/Alphanumeric/Special Characters	100	Image of teacher
teacher_grade_id	Integer	11	Teacher Grade UID

AFTER NORMALIZATION

Admin details (tbl_admin)

Field Name	Data Type	Size (Characters)	Description
admin_id	Integer	11	Admin UID
admin_user_name	String/Alphanumeric/Special Characters	100	Admin username to login
admin_password	String/Alphanumeric/Special Characters	150	Admin password to login

Attendance details (tbl_attendance)

Field Name	Data Type	Size (Characters)	Description
attendance_id	Integer	11	ID in attendance table
student_id	Integer	11	Student UID
attendance_status	Enum(Present or Absent)	-	Attendance status of student
attendance_date	Date	-	Date of attendance
teacher_id	Integer	11	Teacher UID

Grade details (tbl_grade)

Field Name	Data Type	Size (Characters)	Description
grade_id	Integer	11	Grade UID
grade_name	String/Alphanumeric/Special Characters	10	Classes and Sections

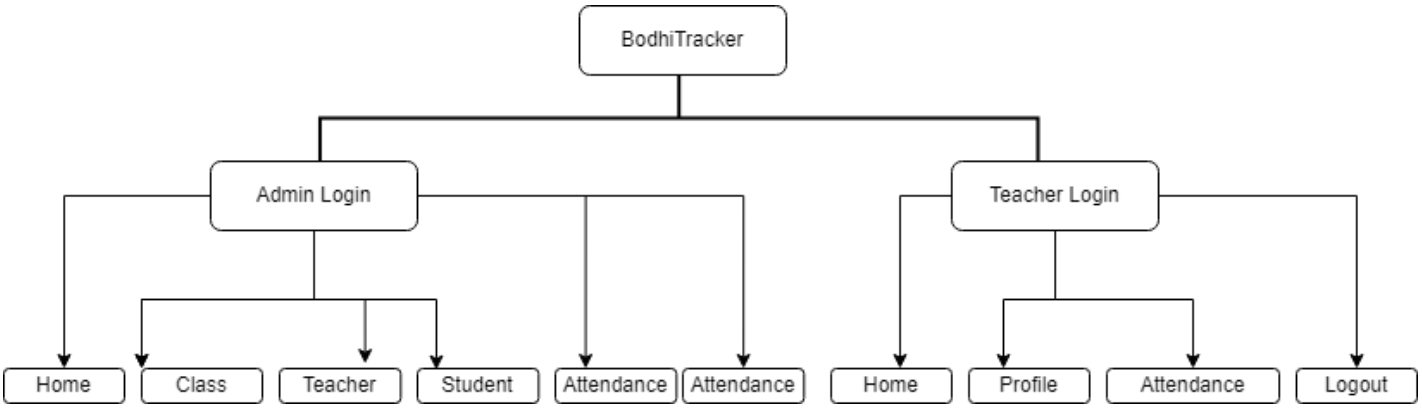
Student details (tbl_student)

Field Name	Data Type	Size (Characters)	Description
student_id	Integer	11	Student UID
student_name	String/Alphanumeric/Special Characters	150	Name of student
student_roll_number	Integer	11	Student roll number
student_dob	Date	-	Date of birth of student
student_grade_id	Integer	11	Student grade UID

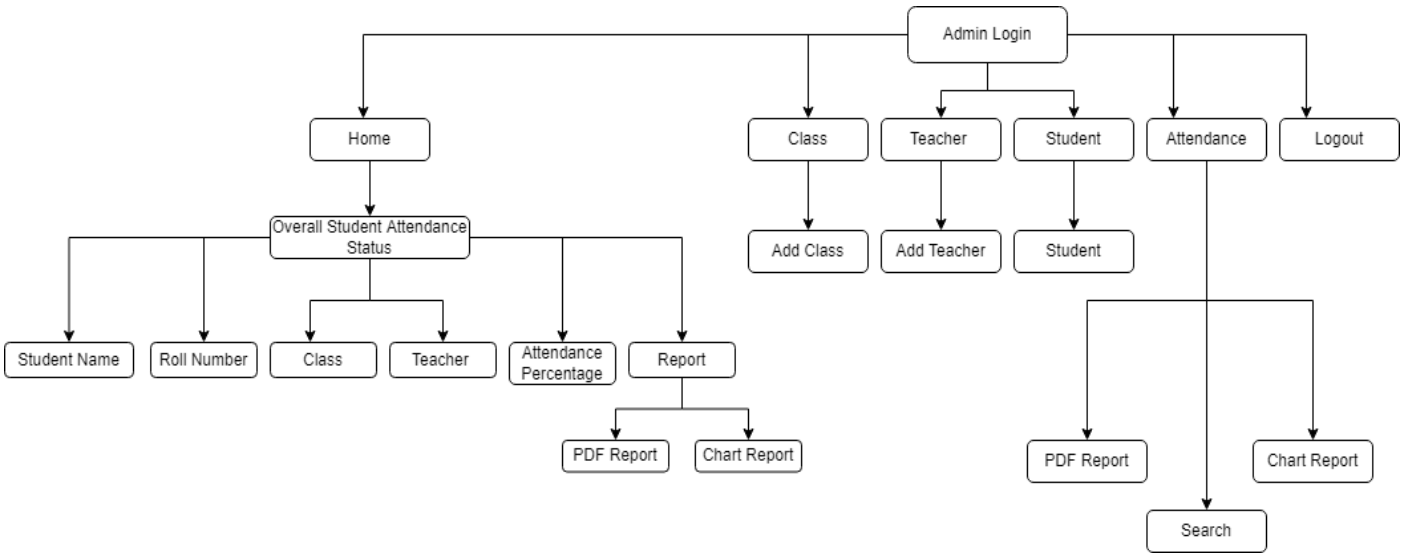
Teacher details (tbl_teacher)

Field Name	Data Type	Size (Characters)	Description
teacher_id	Integer	11	Teacher UID
teacher_name	String/Alphanumeric/Special Characters	150	Name of Teacher
teacher_address	String	-	Address of the teacher
teacher_emailid	String/Alphanumeric/Special Characters	100	Teacher email ID
teacher_password	String/Alphanumeric/Special Characters	100	Password of teacher account
teacher_qualification	String/Alphanumeric/Special Characters	100	Teacher qualification
teacher_doj	Date	-	Teacher date of joining
teacher_image	String/Alphanumeric/Special Characters	100	Image of teacher
teacher_grade_id	Integer	11	Teacher Grade UID

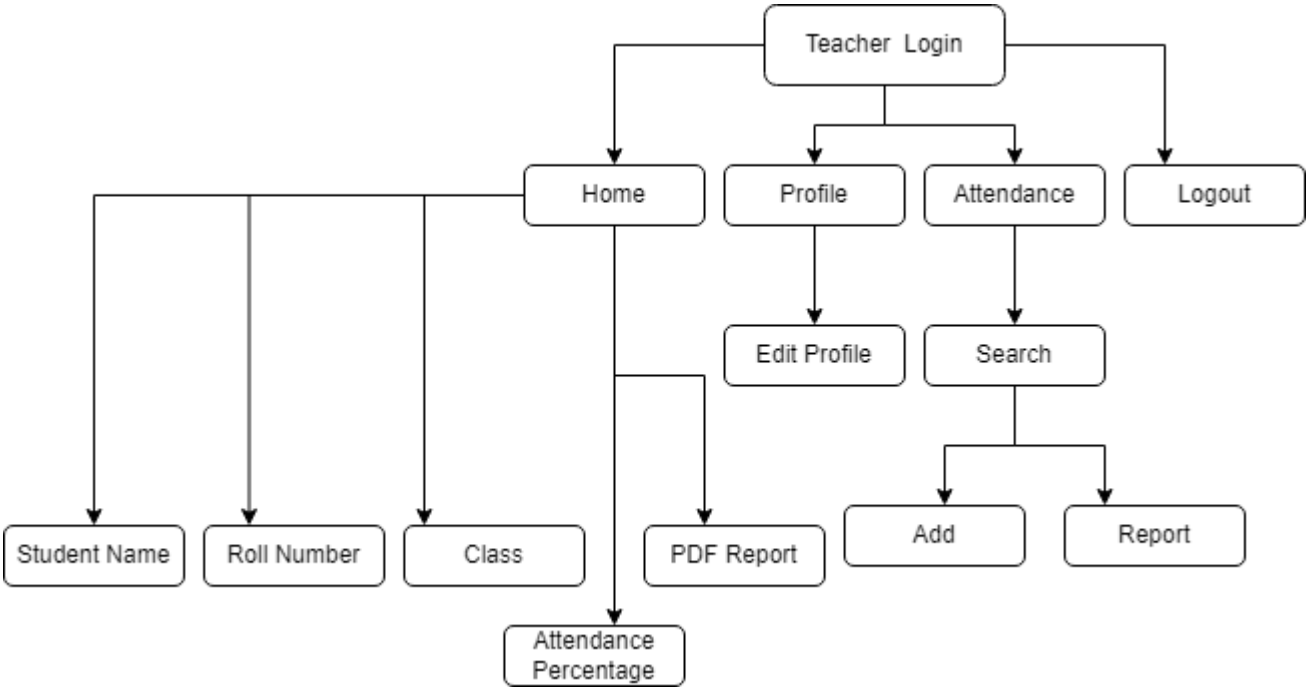
Module Diagram:



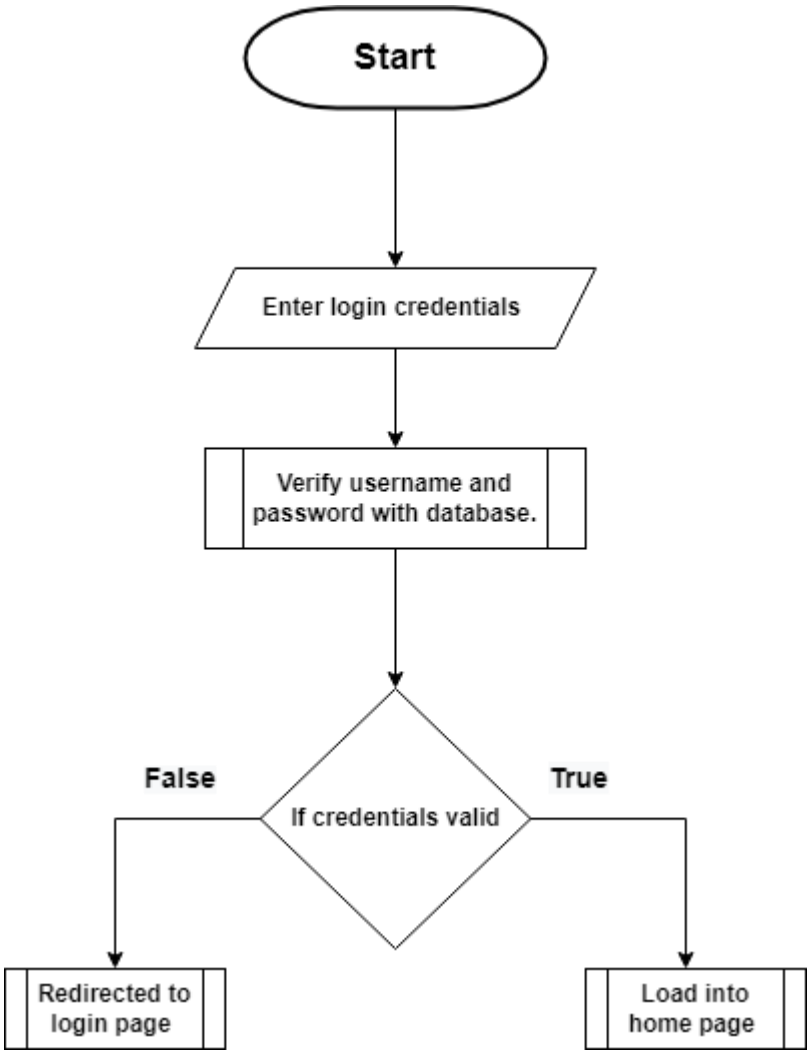
Admin Login:



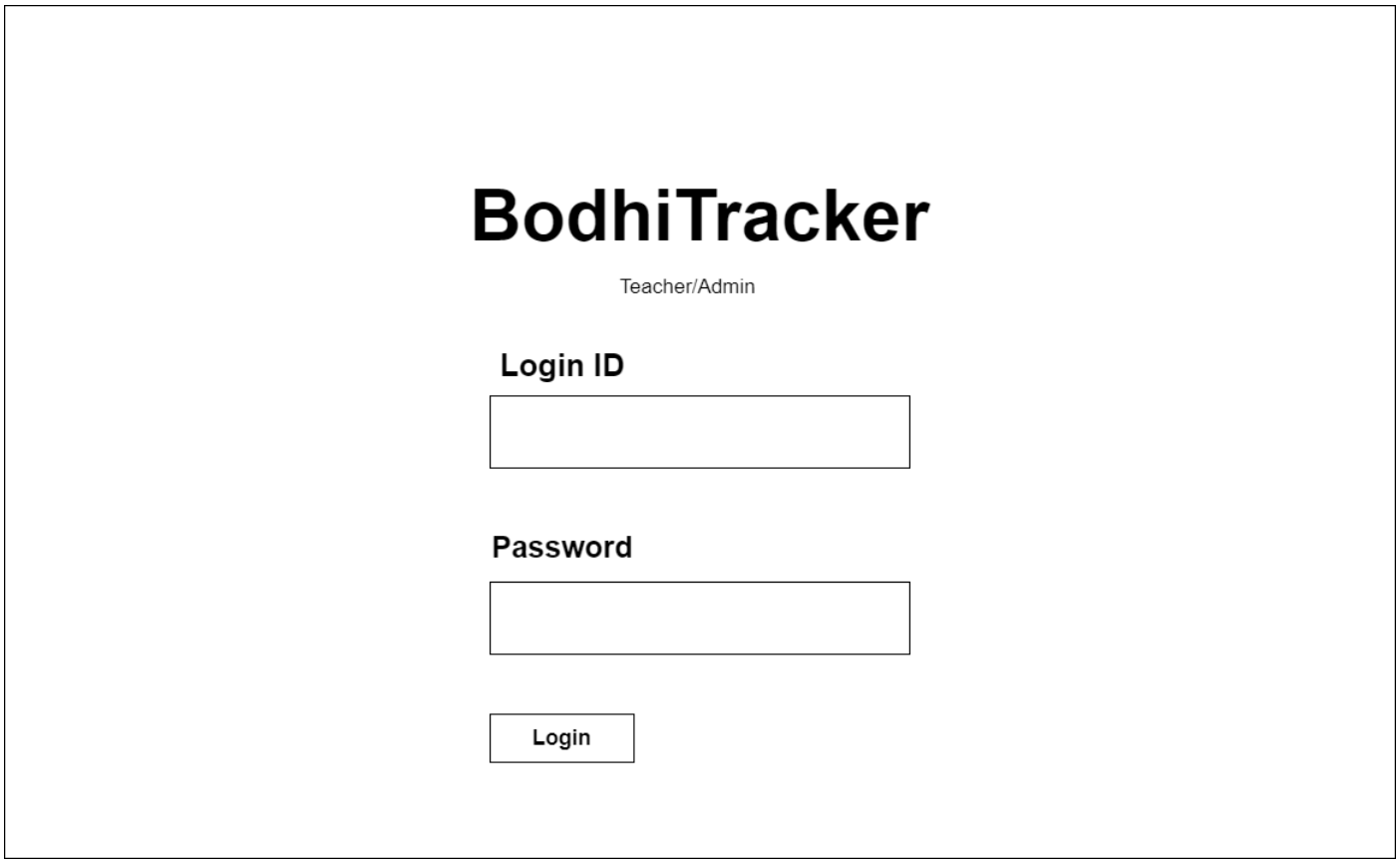
Teacher Login:

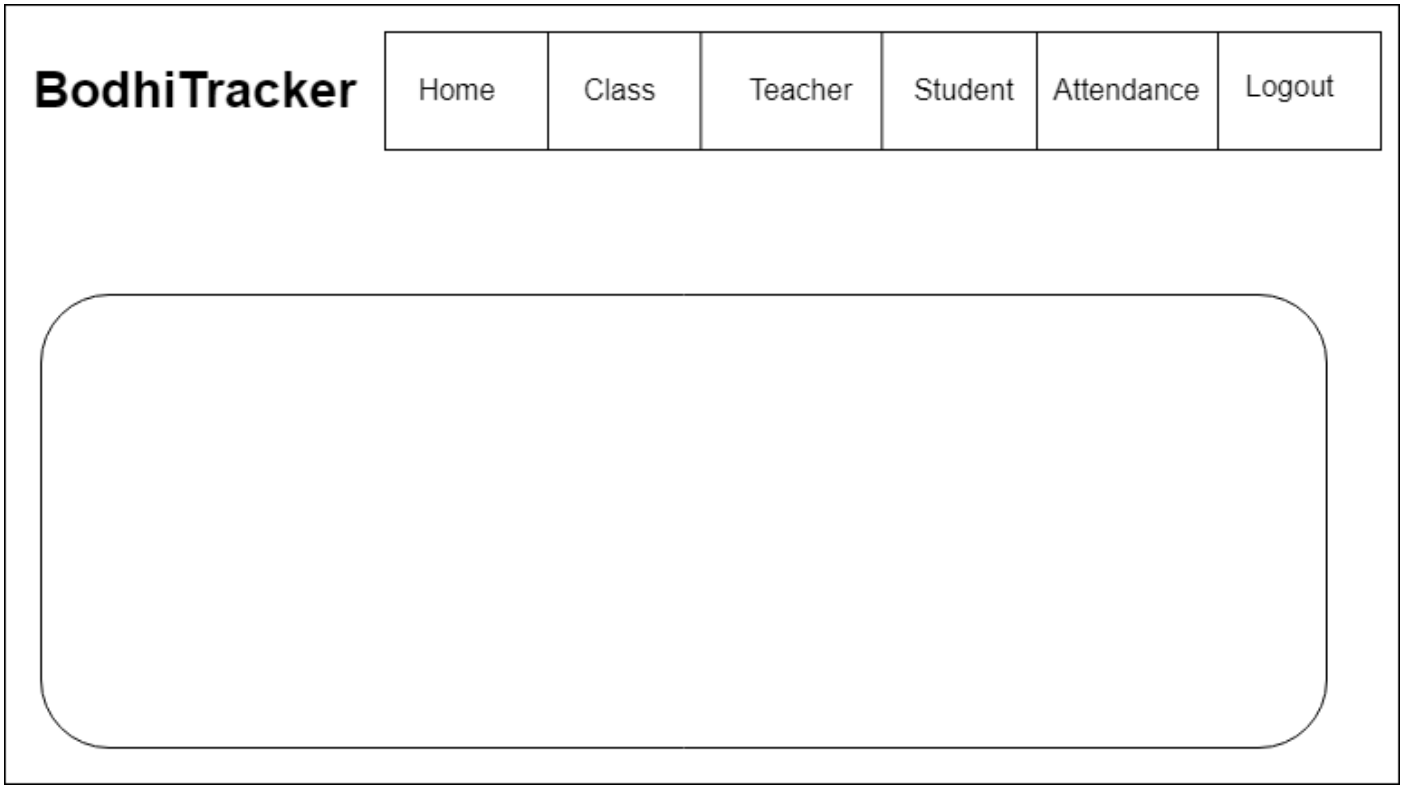


Process Flowchart:

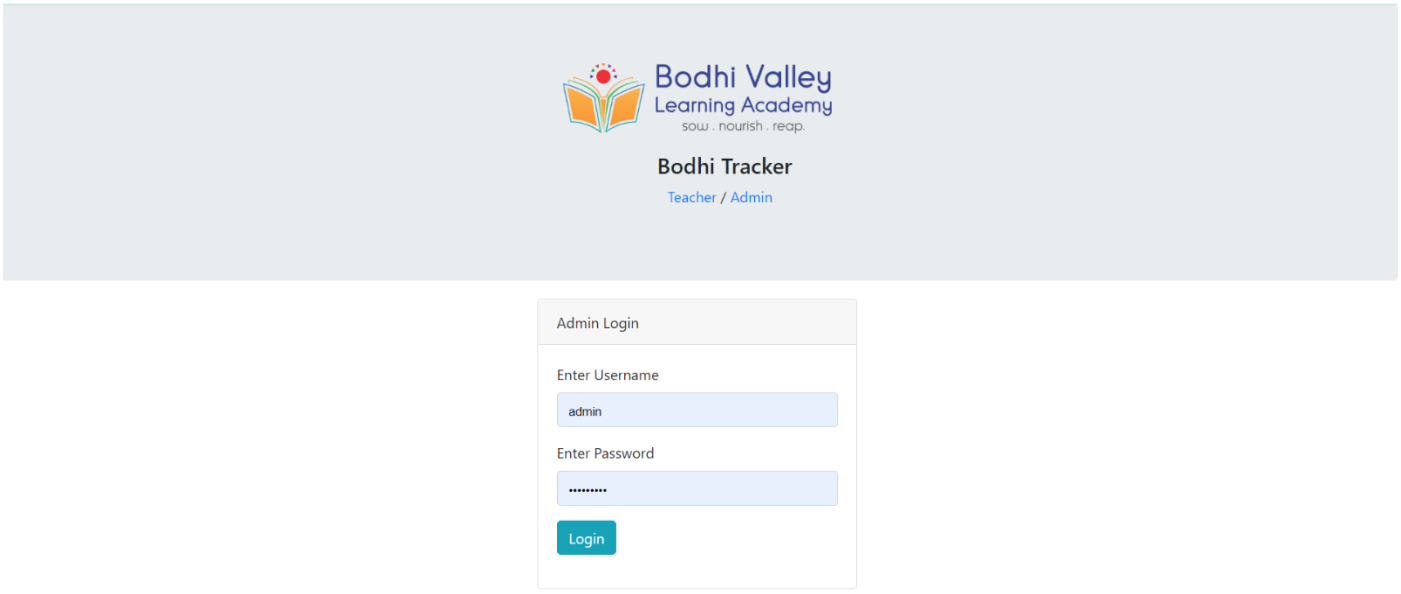


Design Layout:

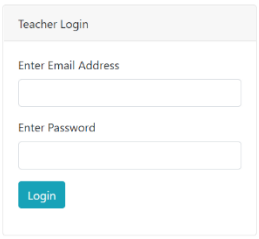


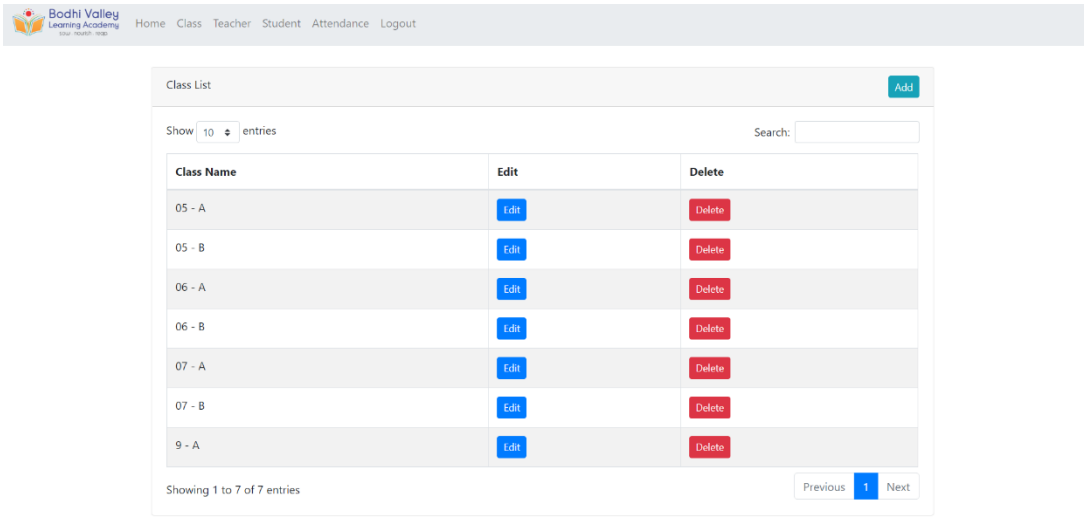


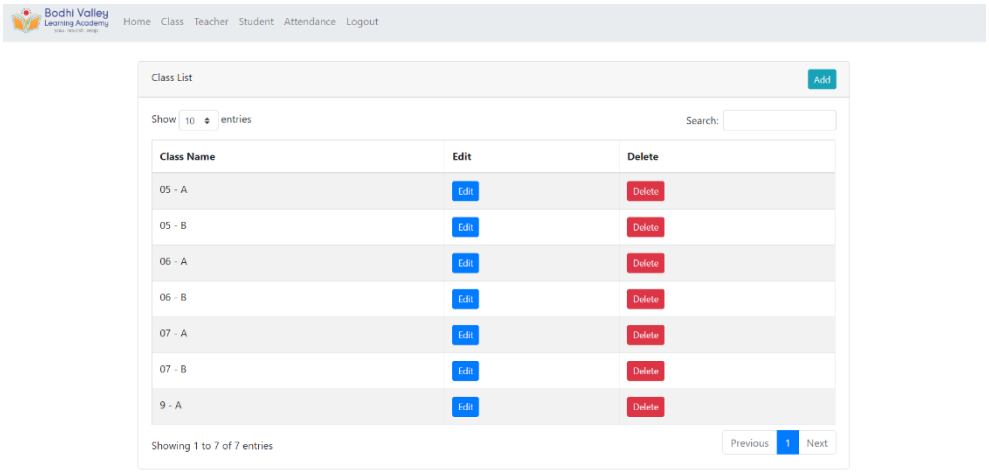
Screen Layout:



Bodhi Valley
Learning Academy
sow . nourish . reap.
Bodhi Tracker
Teacher / Admin


Teacher Login
Enter Email Address
Enter Password
Login


Bodhi Valley
Learning Academy
Home Class Teacher Student Attendance Logout
Class List
Add
Show 10 entries
Search:
Class Name
Edit
Delete
05 - A
05 - B
06 - A
06 - B
07 - A
07 - B
9 - A
Edit
Delete
Showing 1 to 7 of 7 entries
Previous 1 Next


Bodhi Valley
Learning Academy
Home Class Teacher Student Attendance Logout
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Edit
Delete
Showing 1 to 7 of 7 entries
Previous 1 Next

Testing plan:

Action test	Description	Method of testing/Expected Result	Success Criteria	Pass/Fail
Login	Validation of username and password redirecting user to dashboard	Enter Correct Login Details; Enter Wrong Login Details; Error Dialog saying wrong login-details entered Only entering credentials in one field; Error Message displaying that password/username not entered	8	Pass
Teacher account creation	Creation of teacher profile for the user to mark attendance	Creating teacher profile by validating all form fields; Typing invalid data in fields; Leaving few fields unfilled; Error message depicted along with "*" icon.	1,8	Pass
Creating and deleting classes and sections	Creation of classes and sections.	Leaving the field unfilled; Filling the field with both alphanumeric and only alphabetical data; Deleting class from list; "Data added successfully" and "Data deleted successfully" message displayed on screen	2,3	Pass
Attendance	Adding student attendance status on any date.	Leaving date field unfilled; "Attendance date is required" message displayed; Choosing "present" option; Choosing "absent" option;	9	Pass

Adding students and classes	Adding students and classes. Assigning students to respective classes.	Leaving student name field unfilled; Leaving student class field unfilled; Filling add class field with alphanumeric, alphabetical, and numerical data; "Class name is required" message displayed upon unfilled field.	2,6	Pass
PDF and Chart report	Generating a detailed chart and pdf report of student attendance during a specific time period.	Choosing invalid date range such as 2nd April to 25th March; Blank report generated upon entering invalid dates;Generating report for dates with no attendance status.	7,9	Pass
Editing teacher account information	Enabling admin to change teacher account username, password, and in teacher information.	Removing previous information and leaving the field unfilled; Respective field "is required" message displayed.	1	Pass
Logout	Admin and teacher should be redirected to respective login page after logging out.	Clicking on the logout button repeatedly on both admin and teacher profile.	-	Pass