

UNIVERSITY PORTAL:

14 February 2026 21:01

BACKEND:

Attendance Workflow

Faculty Side

- 1 Faculty logs in
- 2 Navigates to Attendance page
- 3 Selects course/class
- 4 Selects date
- 5 System loads student list
- 6 Faculty marks Present/Absent
- 7 Clicks Submit

Attendance Report Flow

- 1 Faculty clicks View Report
- 2 Frontend sends request with:
 - course_id
 - date / date range
- 3 Backend receives the request
- 4 Backend fetches attendance records from the database
- 5 Backend sends the attendance data back
- 6 Frontend displays the report in table format

markAttendance() — Backend Logic

Here is the professional step flow:

1 Validate Input

- ✓ check course_id exists
- ✓ check faculty authorized
- ✓ check students list not empty

2 Check Course-Student Mapping

- ✓ ensure students belong to the course
(optional for hackathon, but good practice)

3 Check Duplicate Attendance

- ✓ verify attendance not already marked for that date
prevents double entry

4 Process Each Student

Loop through list:

- ✓ create attendance record
- ✓ assign present/absent

5 Save Records to Database

Insert attendance entries.

6 Return Response

Send back:

- ✓ success message
- ✓ or error message

Entities

✓ Student ✓ Faculty ✓ Course ✓ Attendance ✓ Enrollment

Student	Faculty	Course	Enrollment	✓ Attendance Table
<ul style="list-style-type: none">• student_id• name• department• email	<ul style="list-style-type: none">• faculty_id• name• department• email	<ul style="list-style-type: none">• course_id• course_name• department	<p>↳ connects students and courses</p> <ul style="list-style-type: none">• enrollment_id• student_id• course_id	<ul style="list-style-type: none">attendance_idstudent_idcourse_idfaculty_iddatestatuscreated_at

SERVICE LOGIC:

Function Input (Final Correct Version)

The function should receive:

- ✓ course_id → which course
- ✓ date → attendance date
- ✓ faculty_id → who marked attendance

Function Output

After processing, backend returns:

- ✓ success message
- ✓ or error message

✓ students list with status → attendance for each student