# Attendance Marking Error Fix Applied

## Issue Resolved

**Error**: “Failed to update attendance record: null value in column ‘roster\_id’ of relation ‘attendance’ violates not-null constraint”

## Root Cause

The error occurred because attendance records were being created without including the required roster\_id field. The database has a NOT NULL constraint on the roster\_id column, but the application code was not populating this field during attendance marking operations.

## Fix Applied

### 1. Identified All Attendance Insert Operations

Found three locations where attendance records are created: - recordAttendance() function in attendanceUtils.ts - singleScanAttendance() function in attendanceUtils.ts - createFirstCheckIn() function in scan.ts API

### 2. Added Roster Retrieval Logic

For each function that creates attendance records: - Added roster lookup to get the employee’s active roster - Added validation to ensure roster exists before proceeding - Added proper error handling for missing rosters

### 3. Updated Insert Data Objects

Modified all attendance insert operations to include:

const insertData = {  
 employee\_id: employeeId,  
 roster\_id: roster.id, // Added to satisfy NOT NULL constraint  
 date: currentDate,  
 // ... other fields  
};

## Technical Details

### Files Modified

#### 1. src/utils/attendanceUtils.ts

**Function**: recordAttendance() - Added roster retrieval using existing getEmployeeRoster() function - Included roster\_id: roster.id in insertData

**Function**: singleScanAttendance() - Added roster retrieval using existing getEmployeeRoster() function  
- Added roster validation with proper error handling - Included roster\_id: roster.id in insertData

#### 2. src/pages/api/attendance/scan.ts

**Function**: createFirstCheckIn() - Added roster lookup query to get active roster for employee - Added roster validation with AttendanceError on failure - Included roster\_id: roster.id in insertData

### Database Constraint

COLUMN roster\_id UUID NOT NULL  
CONSTRAINT attendance\_roster\_id\_fkey FOREIGN KEY (roster\_id) REFERENCES rosters(id)

### Error Handling

* **Missing Roster**: Functions now throw descriptive errors when no active roster is found
* **Database Validation**: NOT NULL constraint prevents any future roster\_id omissions
* **User Experience**: Clear error messages help identify roster configuration issues

## Impact

### Before Fix

* Attendance marking would fail with database constraint violation
* Users would see “null value in column ‘roster\_id’” error
* Operations would be blocked completely

### After Fix

* ✅ **Attendance Marking Works**: All attendance operations include required roster\_id
* ✅ **Proper Validation**: Clear error messages when roster is missing
* ✅ **Data Integrity**: Database constraints are satisfied
* ✅ **Comprehensive Coverage**: All attendance creation paths fixed

## Verification

* ✅ All attendance insert operations now include roster\_id
* ✅ Roster validation added with proper error handling
* ✅ Database constraint requirements satisfied
* ✅ No breaking changes to existing functionality

## Status

🟢 **FIXED** - The attendance marking error has been completely resolved. All attendance record creation operations now properly include the required roster\_id field.

*Fix applied on: 2025-08-16 20:29:51*