

HR Attendance System Web API- Project Scenario

The Human Resources department requested a Web API application to help them track employee attendance.

The system will store employee information and record their check-in and check-out times every workday.

The HR manager needs to:

- Add new employees to the system.
- View all employees or a single employee.
- Update employee information if needed.
- Remove employees who have left the company.

Each employee should have the following details:

- Id
- Name
- Email
- Department
- HireDate

The attendance system should allow:

- Recording attendance for employees (Check-In and Check-Out).
- Retrieving attendance records of a specific employee.- Filtering attendance data by date.

Attendance Record includes:

- Id
- EmployeeId
- Date
- CheckIn
- CheckOut

Business Rules:

- CheckOut must be later than CheckIn.
- A CheckIn cannot be registered again for the same employee on the same date.
- If CheckOut is missing, it means the employee is still checked in.

Objectives:

- Build a RESTful ASP.NET Core Web API
- Use Entity Framework Core and Code First Migrations
- Return data in JSON format
- Test all endpoints using Swagger

Bonus Features:

- Calculate total working hours for each employee per day.
- Pagination when listing employees.