## **ASP.NET Request Management Web API**

### **General Description**

This Web API provides a simple request management system where employees can request leave, and administrators can review and approve or reject those requests. The API is built using **ASP.NET Core (.NET 8)**, utilizes **Entity Framework Core** for database operations, and stores data in a **SQLite** database.

It supports basic operations such as:

* Creating leave requests
* Viewing all leave requests
* Updating the status (approve/reject)
* Deleting leave requests

The API is documented using **Swagger**, and includes **input validation**, **basic error handling**, and optionally supports **JWT-based role authentication** (Employee vs Admin).

### **Entities**

#### **Employee**

Represents the users who can submit requests.

| **Property** | **Type** | **Description** |
| --- | --- | --- |
| EmployeeId | int | Primary key |
| Name | string | Employee full name |
| Email | string | Employee email address |
| Department | string | Department (Admin/Employee) |

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#### **LeaveRequest**

Represents a request submitted by an employee.

| **Property** | **Type** | **Description** |
| --- | --- | --- |
| LeaveId | int | Primary key |
| EmployeeId | int | Foreign key referencing Employee |
| FromDate | Date | Start date of the leave |
| ToDate | Date | End date of the leave |
| Reason | string | Reason for the leave |
| Status | string | Current status: Pending, Approved, or Rejected |

### **Relationships**

There is a **one-to-many relationship** between Employee and LeaveRequest.

* **One Employee** can have **multiple LeaveRequests**.
* Each LeaveRequest contains a foreign key (EmployeeId) that references the Employee table.

This ensures every leave request is tied to a valid employee.