

## 1. Introduction

### Project Overview:

The Employee Management System is a web application that allows organizations to manage employee data efficiently. It provides a user-friendly interface for administrators to perform CRUD (Create, Read, Update, Delete) operations on employee records. The system includes a login page with **JWT Authentication** for secure access, and a dashboard to view, add, edit, or delete employees.

## 2. Requirements

### System Requirements:

- **Backend Framework:** ASP.NET Core
- **Frontend:** Razor Pages
- **Database:** PostgreSQL
- **Authentication:** JWT Token-based authentication
- **Development Tools:**
  - .NET SDK (version 5 or later)
  - PostgreSQL Database
  - Visual Studio or Visual Studio Code (for development)

## 3. Setup and Installation

### Clone the Repository:

Clone the GitHub repository to your local machine:

git clone [https://github.com/yogeshbhande/Employee\\_Management\\_BirdiSystem.git](https://github.com/yogeshbhande/Employee_Management_BirdiSystem.git)

### Database Configuration:

1. Install PostgreSQL and create a database for the application.
2. Open the appsettings.json file and update the **ConnectionString** to match your PostgreSQL database configuration:

### Database Migration:

1. Open the **Package Manager Console** or use the **Command Line Interface (CLI)**.
2. Run the following commands to apply migrations and set up the database schema:

```
dotnet ef migrations add InitialCreate
```

```
dotnet ef database update
```

## 4. Functionality

### Login Page:

The system has a login page that allows users to log in using their credentials. Upon successful login, a **JWT Token** will be generated for user authentication.

### Test Credentials:

- **Email:** viraj@yopmail.com
- **Password:** 12345678

### Dashboard:

The dashboard displays a list of employees and provides the following options:

- **Edit:** Edit employee details.
- **Delete:** Remove an employee from the system.
- **Add New Employee:** Add a new employee to the system.

### CRUD Operations:

- **Create:** Admins can add new employees by filling out a form with employee details.
- **Update:** Employees can be updated by editing the existing details.
- **Delete:** Employees can be deleted from the system.

## 7. Conclusion

The Employee Management System is a robust application that demonstrates CRUD operations, JWT-based authentication, and a user-friendly interface. It can be extended further to include more advanced features such as role-based access control and reporting.