HRMS project

Database Schema:

Table: Employees
- EmployeeId (Primary Key)
- Name
- ContactDetails
- Position
- Department
- AccountNumber
- EmploymentStatus

 Table: Salaries
- SalaryId (Primary Key)
- EmployeeId (Foreign Key referencing Employees)
- BaseSalary
- Bonus
- Deductions
- RevisionDate

 Table: Payrolls
- PayrollId (Primary Key)
- EmployeeId (Foreign Key referencing Employees)
- Month
- Year
- TotalSalary
- Taxes
- OtherDeductions

 Table: EmploymentHistory
- HistoryId (Primary Key)
- EmployeeId (Foreign Key referencing Employees)
- EventType (Promotion, Demotion, Transfer, etc.)
- EventDate
- Comments

 Table: Bonuses
- BonusId (Primary Key)
- EmployeeId (Foreign Key referencing Employees)

- BonusAmount
- BonusDate

System Architecture:

1. Frontend:
   - Developed using ASP.NET MVC for the user interface.
   - Utilizes Razor views for rendering HTML pages.

2. Backend:
   - Written in C# to handle server-side logic.
   - Utilizes the Entity Framework for data access and interaction with the database.

3. Database:
   - Utilizes Microsoft SQL Server as the database engine.

4. User Authentication and Authorization:
   - Implements ASP.NET Identity for user authentication and authorization.

5. Security Measures:
   - Implements HTTPS for secure data transmission.
   - Applies input validation and parameterized queries to prevent SQL injection.

6. Scalability and Flexibility:
   - Database designed with normalization to ensure flexibility and scalability.
   - Utilizes indexes on key columns for efficient data retrieval.

7. Error Handling:
   - Implements try-catch blocks for error handling.
   - Logs errors for monitoring and troubleshooting.

8. User Interface:
   - Designed using Bootstrap for a responsive and user-friendly interface.
   - Implements navigation menus for easy interaction.

9. Documentation:
   - Includes documentation for the system architecture and database schema.

10. Future Enhancements:
    - Design follows modular principles for easy integration of additional features.