1) You are developing a Human Resource Management System which will store information about the employees and department.

Create Employees table with following structure:

EmployeeID int

FirstName nvarchar(20)

LastName nvarchar(20)

Salary decimal(10,3)

DateOfJoining smalldatetime,

DepartmentId int

Create Departments table with following structure:

DepartmentId int,

DepartmentName nvarchar(30)

Insert some records in the Departments table manually.

2) You need to meet the following requirements before storing employee data in the system:

a) EmployeeId should be auto generated and should be a Primary Key.

b) FirstName and LastName are mandatory.

c) Salary can contain only numbers.

d) FirstName and LastName can contain only characters.

e) DepartmentId should be a Primary Key of Departments table

f) DepartmentId should act as a foreign key in Employees table.

3) Write a code to perform the following operations (Use EF Core Database First approach. Use Interface to define the operations that can be performed on an Employee and Repository Class implementing that Interface):

a) Add an Employee

b) Update the Existing Employee

c) Delete the Existing Employee

d) Display all the Employees

e) Display a single employee record using EmployeeID

f) Load the Departments and then load employees working in those departments (Implement this using both Eagar Loading and Lazy Loading).

g) Display EmployeeId, FirstName, LastName, Salary from Employees (Use LINQ to EF Core).

h) Display employees working in departments (Use Inner Join).

**The code must be Modular, Object Oriented, and Loosely Coupled.**