

Assignment 3: Manager & Staff Task Management (Entity Framework Core)

Objective: - Learn Entity Framework Core Code-First approach. - Implement a console-based mini-project to manage Managers, Staff, and Tasks. - Practice CRUD operations and one-to-many relationships.

Project Description: - A Manager can assign tasks to Staff. - Staff can view their tasks. - Manager can update task status or delete tasks. - Implement console-based menu to interact with the system.

Entities: Entities and Fields:

1. Manager

- ManagerId (int, Primary Key)
- Name (string)
- Email (string)
- Staffs (List)

2. Staff

- StaffId (int, Primary Key)
- Name (string)
- Email (string)
- ManagerId (int, Foreign Key)
- Manager (Manager)
- Tasks (List)

3. TaskItem

- TaskItemId (int, Primary Key)
- Title (string)
- Description (string)
- IsCompleted (bool)
- StaffId (int, Foreign Key)
- Staff (Staff)
- DbContext: TaskContext

Console Menu Functionalities: 1. Add Manager 2. Add Staff (assign to Manager) 3. Add Task (assign to Staff) 4. View all Managers, Staff & Tasks 5. Update Task (mark as completed) 6. Delete Task 7. Exit

Instructions for Students: - Use EF Core Code-First. - Implement one-to-many relationships: Manager→Staff, Staff→Tasks. - Use Include() / ThenInclude() to display related data. - Implement all CRUD operations. - Menu-driven console UI. (Reference: - Entity Framework Core Documentation: <https://learn.microsoft.com/en-us/ef/core>)