1. Use Case Diagram: Online Nutrition and Meal Planning System
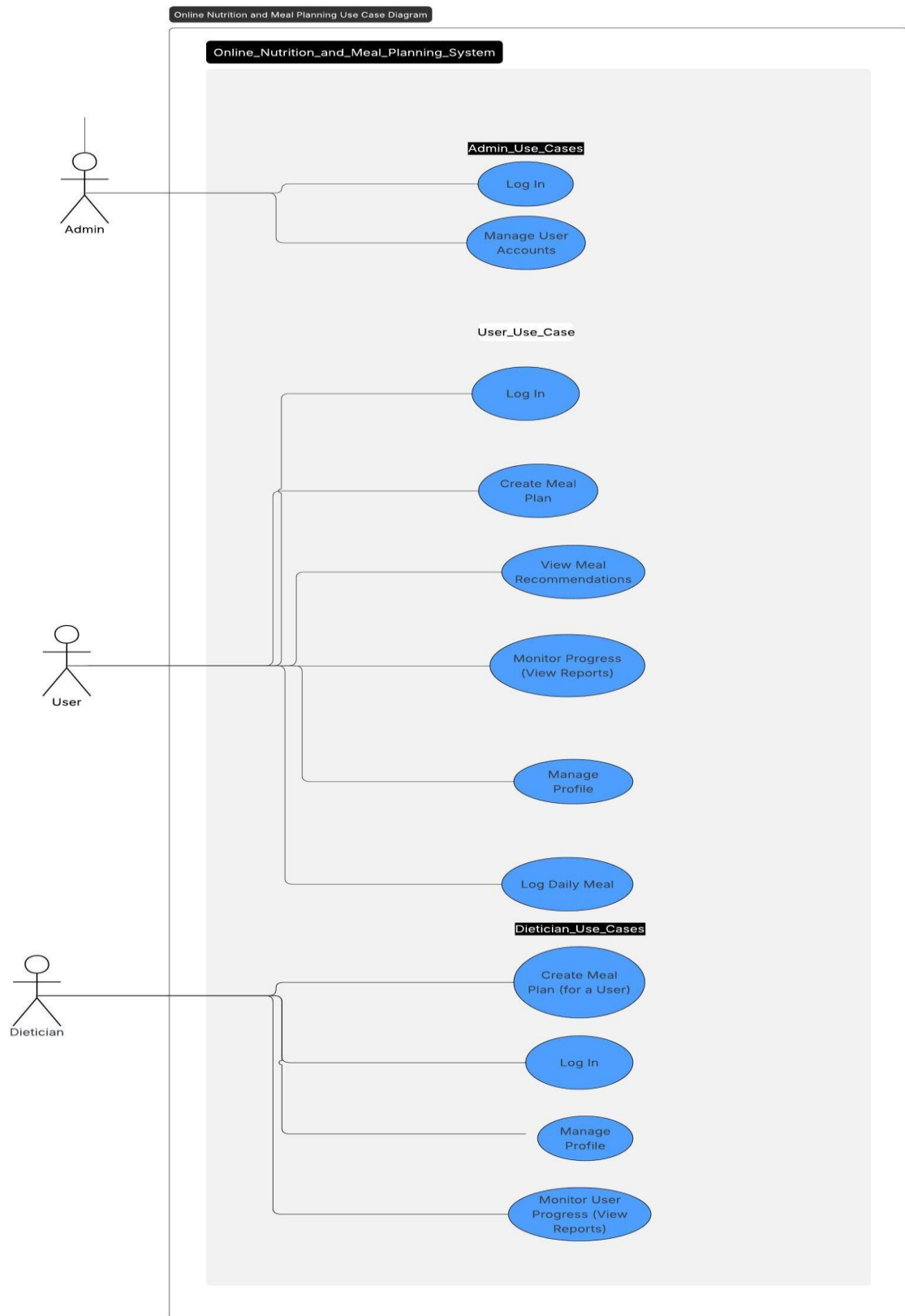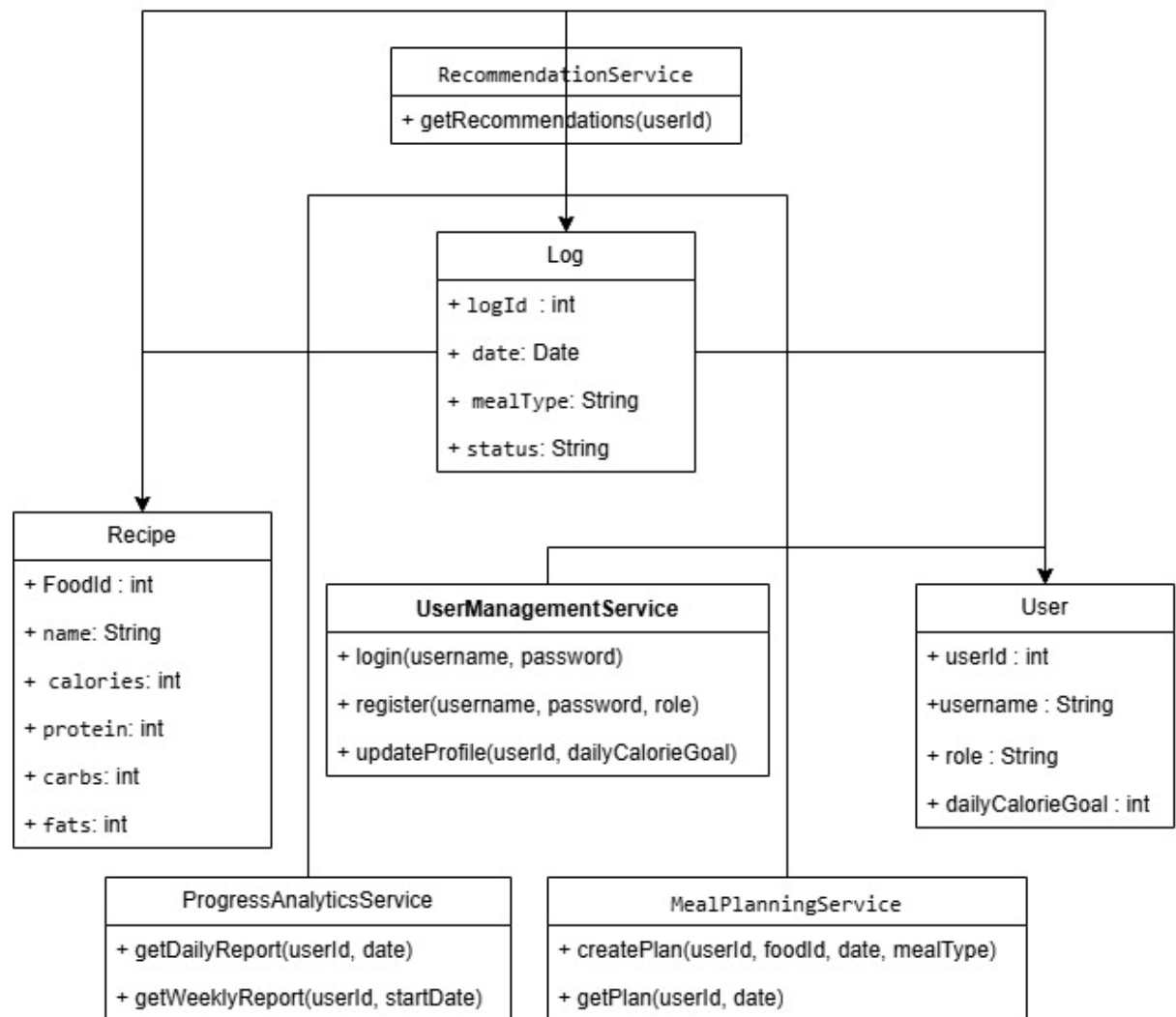

Online Nutrition and Meal Planning Use Case Diagram

Online_Nutrition_and_Meal_Planning_System

Admin_Use_Cases
- Log In
- Manage User Accounts

Admin

User_Use_Case
- Log In
- Create Meal Plan
- View Meal Recommendations
- Monitor Progress (View Reports)
- Manage Profile
- Log Daily Meal

User

Dietician_Use_Cases
- Create Meal Plan (for a User)
- Log In
- Manage Profile
- Monitor User Progress (View Reports)
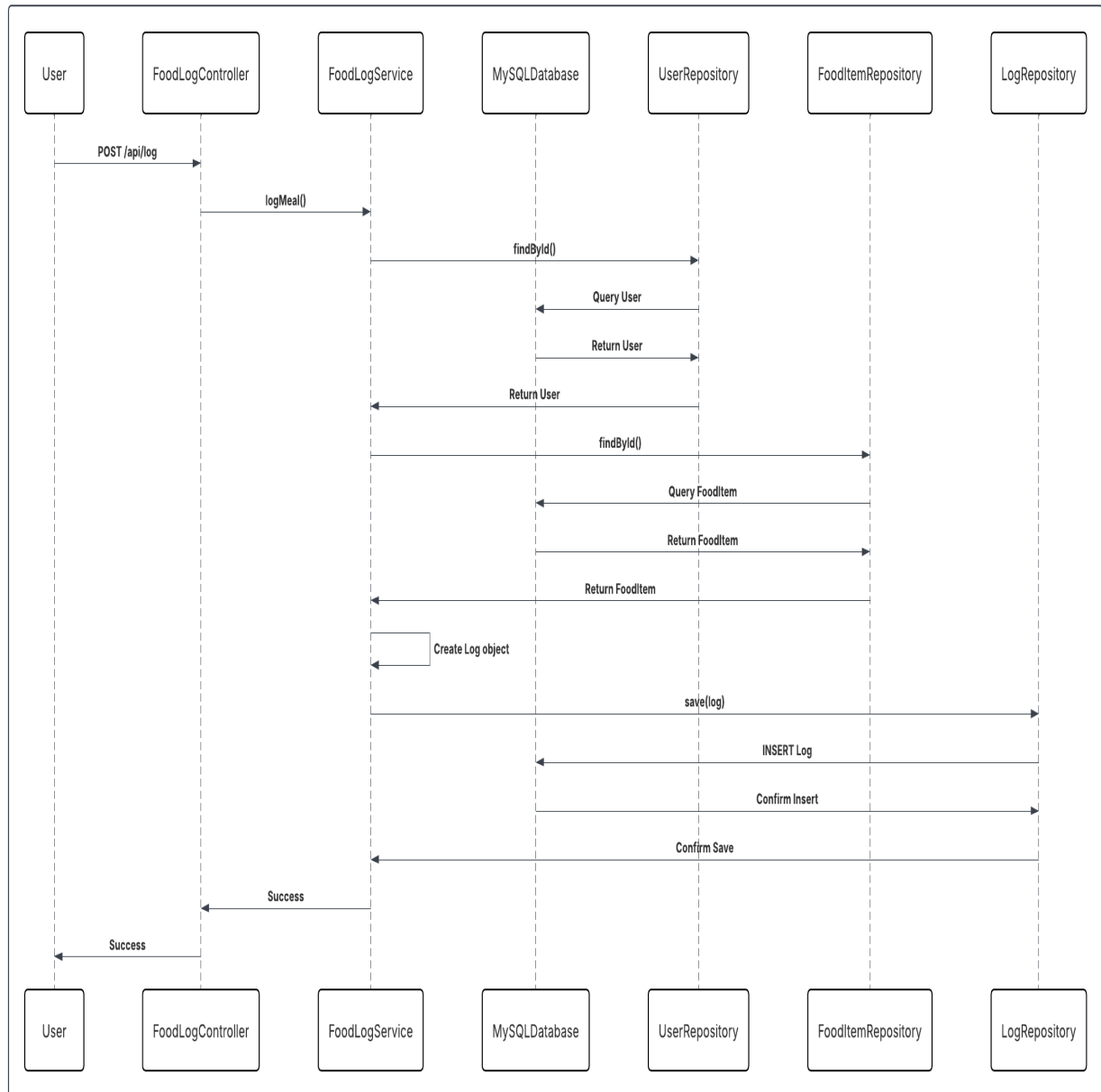
Dietician

2. Class Diagram: Online Nutrition and Meal Planning System

```
RecommendationService
─────────────────────────
+ getRecommendations(userId)
```

```
Log
─────────────────
+ logId : int
+ date: Date
+ mealType: String
+ status: String
```

```
Recipe
─────────────────
+ FoodId : int
+ name: String
+ calories: int
+ protein: int
+ carbs: int
+ fats: int
```

```
UserManagementService
─────────────────────────────────
+ login(username, password)
+ register(username, password, role)
+ updateProfile(userId, dailyCalorieGoal)
```

```
User
──────────────────────────
+ userId : int
+username : String
+ role : String
+ dailyCalorieGoal : int
```

```
ProgressAnalyticsService
────────────────────────────────
+ getDailyReport(userId, date)
+ getWeeklyReport(userId, startDate)
```

```
MealPlanningService
──────────────────────────────────────
+ createPlan(userId, foodId, date, mealType)
+ getPlan(userId, date)
```
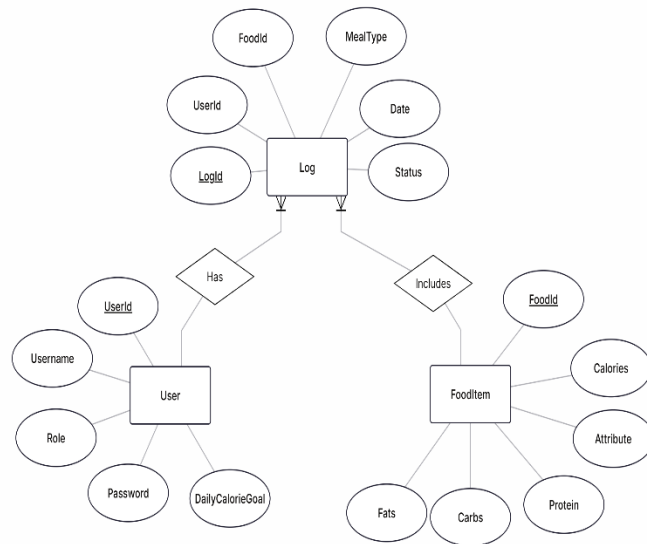
3. Interaction Diagram: Online Nutrition and Meal Planning System

Online Nutrition and Meal Planning Sequence Diagram

4. ER Diagram: Online Nutrition and Meal Planning System

5. DB Schema: Online Nutrition and Meal Planning System