ESE Lab – Reusable Spring Boot CRUD API (Patient Base Project)

Part 1: General Steps to Convert Patient CRUD App to Any Desired CRUD API

1. Rename base package from com.example.patientmanagement to required module package.
2. Rename Entity class Patient → Target Entity (Employee, Student, Book, etc.).
3. Modify entity fields only (remove age/disease, add required attributes).
4. Rename Repository interface accordingly (PatientRepository → XRepository).
5. Rename Service class and update method parameter/entity names only.
6. Rename Controller class and update @RequestMapping path.
7. Update API endpoint names (e.g., /patients → /employees).
8. Update spring.application.name and artifactId if needed.
9. No change required in CRUD logic or annotations.

Part 2: Topic-wise Minimal Changes for 20 CRUD APIs

1. Student Management CRUD App

Entity Rename: Patient → Student
Entity Fields Change: name, course
Controller Mapping Change: @RequestMapping("/students")

2. Employee Management CRUD App

Entity Rename: Patient → Employee
Entity Fields Change: name, department
Controller Mapping Change: @RequestMapping("/employees")

3. Book Management CRUD App

Entity Rename: Patient → Book
Entity Fields Change: title, author
Controller Mapping Change: @RequestMapping("/books")

4. Product Management CRUD App

Entity Rename: Patient → Product
Entity Fields Change: name, price
Controller Mapping Change: @RequestMapping("/products")

5. Course Management CRUD App

Entity Rename: Patient → Course
Entity Fields Change: code, name
Controller Mapping Change: @RequestMapping("/courses")

6. Department Management CRUD App

Entity Rename: Patient → Department
Entity Fields Change: name
Controller Mapping Change: @RequestMapping("/departments")

7. Teacher Management CRUD App

Entity Rename: Patient → Teacher
Entity Fields Change: name, subject
Controller Mapping Change: @RequestMapping("/teachers")

8. Subject Management CRUD App

Entity Rename: Patient → Subject
Entity Fields Change: code, name
Controller Mapping Change: @RequestMapping("/subjects")

9. Contact Management CRUD App

Entity Rename: Patient → Contact
Entity Fields Change: name, phone

Controller Mapping Change: @RequestMapping("/contacts")

10. Customer Management CRUD App

Entity Rename: Patient → Customer
Entity Fields Change: name, address
Controller Mapping Change: @RequestMapping("/customers")

11. Vehicle Management CRUD App

Entity Rename: Patient → Vehicle
Entity Fields Change: number, ownerName
Controller Mapping Change: @RequestMapping("/vehicles")

12. Patient Management CRUD App

Entity Rename: Patient → Patient
Entity Fields Change: name, disease
Controller Mapping Change: @RequestMapping("/patients")

13. Event Management CRUD App

Entity Rename: Patient → Event
Entity Fields Change: name, date
Controller Mapping Change: @RequestMapping("/events")

14. Expense Management CRUD App

Entity Rename: Patient → Expense
Entity Fields Change: amount, description
Controller Mapping Change: @RequestMapping("/expenses")

15. InventoryItem Management CRUD App

Entity Rename: Patient → InventoryItem
Entity Fields Change: name, quantity
Controller Mapping Change: @RequestMapping("/items")

16. Notice Management CRUD App

Entity Rename: Patient → Notice
Entity Fields Change: title, description
Controller Mapping Change: @RequestMapping("/notices")

17. Feedback Management CRUD App

Entity Rename: Patient → Feedback
Entity Fields Change: userName, feedback
Controller Mapping Change: @RequestMapping("/feedbacks")

18. Supplier Management CRUD App

Entity Rename: Patient → Supplier
Entity Fields Change: name, contact

Controller Mapping Change: @RequestMapping("/suppliers")

19. LibraryMember Management CRUD App

Entity Rename: Patient → LibraryMember
Entity Fields Change: name, memberId
Controller Mapping Change: @RequestMapping("/members")

20. User Management CRUD App

Entity Rename: Patient → User
Entity Fields Change: username, email
Controller Mapping Change: @RequestMapping("/users")