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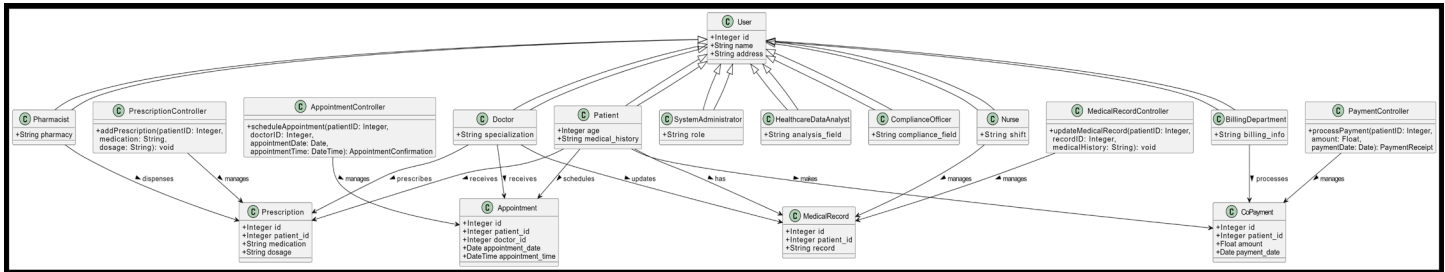SWENG 873, Section 001/002 2024
Lesson 5: Design Class Diagram

1. Design Class Diagram

2. Rational for any domain classes and domain associations that are eliminated from the domain model, any Pure Fabrications and Indirections introduced, any polymorphism used, and any generalization and specialization:

Domain Classes and Associations Eliminated
- No Domain Classes or Associations were eliminated

Pure Fabrications and Indirections
- The controllers AppointmentController, MedicalRecordController, PaymentController, PrescriptionController were introduced to handle the business logic and can be considered Pure Fabrications and introduce avel of indirection by decoupling the user interface from the business logic.

Polymorphism Used
- Polymorphism is utilized through the inheritance of the User class by specific user roles such as Patient, Doctor, Nurse, etc. This allows the User class to be defined generically and extended by the specific subclasses.

Generalization and Specialization
- The User class serves as a generalized class that contains the common attributes (id, name, address). Specific user roles (Patient, Doctor, Nurse, Pharmacist, BillingDepartment, SystemAdministrator, HealthcareDataAnalyst, ComplianceOfficer) are specialized subclasses that inherit from User. This approach minimizes duplication by consolidating common attributes.