

Object - Oriented Programming

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Assignment 4 – Week 4: Small Clinic Management System

I/ Object-Oriented Analysis (OOA) Model

Base on the information provided, we have some analysis

- About **objects**, we can define some objects such as Doctor, Patient, ChronicPatient, Appointment, Clinic (for management), Staff.
- About **attributes** for each object:
 - + For **Doctor**: name, ID, specialty, appointments.
 - + For **Patient**: name, ID, age, medicalHistory.
 - + For **ChronicPatient**: extends Patient and add conditionType, lastCheckupData.
 - + For **Appointment**: date, time, reason, status.
 - + (Extend) For **Clinic**: patients, doctors, staffMembers, appointments.
 - + (Extend) For **Staff**: name, ID, role.
- About **methods** for each object:
 - + For **Doctor**: viewAppointments, updateAppointmentStatus, displayInfo.
 - + For **Patient**: scheduleAppointment, updateMedicalHistory, displayInfo.
 - + For **ChronicPatient**: scheduleAppointment, displayInfo.
 - + For **Appointment**: updateStatus, displayInfo.
 - + For **Clinic**: addPatient, addDoctor, addStaff, scheduleAppointment(), cancelAppointment, displayAllPatient, displayAllDoctor,...
 - + For **Staff**: displayInfo.
- About **inheritance relationships**:
 - + ChronicPatient inherits from Patient: ChronicPatient is a specialized type of Patient, with additional attributes and overridden behaviors.
 - + Patient – Appointment: One patient can have multiple appointments.
 - + Doctor – Appointment: One doctor can have multiple appointments.
 - + Clinic manages all entities.

II/ Overview

