

### C ClinicManagementSystem

Fields:

- HashMap<Integer, Patient> patients
- ArrayList<Doctor> doctors
- TreeMap<LocalDate, ArrayList<Appointment>> appointmentsByDate
- int nextPatientId
- int nextDoctorId
- Scanner scanner

Methods:

- ClinicManagementSystem()
- saveToFile(String)
- loadFromFile(String)
- addPatient(String, String, String)
- findPatient(int) : Patient
- addDoctor(String, String, String)
- findDoctor(int) : Doctor
- addAppointmentByDate(Doctor, String, Patient, String)
- getAppointmentByDate(LocalDate) : ArrayList<Appointment>
- isValidEmail(String) : boolean
- readValidEmail() : String
- isValidPhone(String) : boolean
- readValidPhone() : String
- isValidName(String) : boolean
- readValidName() : String
- generatePatientReport(int) : String
- generateDailyAppointments(String) : String
- main(String[])

### A Person

Fields:

- String name
- String email
- String phone

Methods:

- Person(String, String, String)
- getName() : String
- setName(String)
- getEmail() : String
- setEmail(String)
- getPhone() : String
- setPhone(String)

### C Patient

Fields:

- int patientId
- ArrayList<MedicalRecord> medicalHistory
- TreeMap<LocalDate, Appointment> appointments

Methods:

- Patient(int, String, String, String)
- getAppointments() : TreeMap
- getPatientId() : int
- addMedicalRecord(MedicalRecord)
- addAppointment(LocalDate, Appointment)
- getMedicalHistory() : List<MedicalRecord>
- toString() : String

### C MedicalRecord

Fields:

- Patient patient
- Doctor doctor
- double weight
- double height
- String symptoms
- LocalDateTime date

Methods:

- MedicalRecord(Patient, Doctor, double, double, String, LocalDateTime)
- getPatient() : Patient
- getDoctor() : Doctor
- getWeight() : double
- getHeight() : double
- getSymptoms() : String
- getDate() : LocalDateTime
- setPatient(Patient)
- setDoctor(Doctor)
- setWeight(double)
- setSymptoms(String)
- setDate(LocalDateTime)
- toString() : String

### C Doctor

Fields:

- int doctorId

Methods:

- Doctor(int, String, String, String)
- getDoctorId() : int
- setDoctorId(int)
- setName(String)
- setEmail(String)
- setPhone(String)
- toString() : String

