## **User (Abstract Class)**

- + GetUsername(id):String + GetPassword(patient\_id):String + GetPhoneNumber(id):String + GetEmail(id):String + GetAddress(id):String
- + UpdateUsername(id):String + UpdatePassword(patient\_id):String
- + UpdatePhoneNumber(id):String
- + UpdateEmail(id):String + UpdateAddress(id):String

#### **User Database**

Username User Password Phone Number Email Address User Type (Patient or Doctor)

#### **Patient Database**

Medical Records Lab Reports

### **Doctor Database**

Specialization

# Patient

+ favoritedDoctors:SortedArray + watchedOrganDonors: SortedArray + validPerscriptions:SortedArray + expiredPerscriptions:SortedArray + medicalRecommendations:SortedArray

+ doctorsDatabase

+ userDatabase

+ donating:boolean

+donationType:SotredArray

- String, ?) + upcomingAppointments:LinkedList
- M+ UpdatePatientName(String):boolean + previousAppointments:LinkedList + patientsDatabase
  - UpdatePatientID(int):boolean
  - + UpdateDoctorName(String):boolean - UpdateDoctorID(int):boolean
  - + UpdateRecommendationDetails(String):boolean + UpdateRecommendationDate(?):boolean

MedicalRecommendation

+ recommendationDatabase

MedicalRecommendation(String, int, String, int,

+ RemoveRecommendation():boolean

# + GetMedicalRecommendation():

- + GetPerscription():
- + GetLabReport():
- + GetMedicalRecords():
- + UpdateMedicalRecords():
- + RemoveMedicalRecords():
- + GetFavoritedDoctors(): + GetWatchedOrganDonors():
- + FavoriteDoctor():
- + WatchOrganDonor():
- + ReturnPublicIDForWatchlist():id
- + GetUpcomingAppointments():

RemoveOrganDonation(Organ):boolean

#### Doctor

- + patientsTreated:SortedArray + upcomingAppointments:LinkedList + previousAppointments:LinkedList
- + SetAppointmentAvailability():boolean + ReturnPublicIDForFavorites():id
- + AddOrganDonation(patientName, Organ):boolean RemoveOrganDonation(Organ):boolean
- + UpdateMedicalRecords(patientName, file):boolean
- + UpdateLabReports(patientName, file):boolean
- + RemoveMedicalRecord(patientName):boolean
- + RemoveLabReport(patientName):boolean
- + CreatePerscription(patientName, ...):
- + CreateMedicalRecommendation(patientName, ...)

# Perscription

+ perscriptionDatabase

Perscription(String, float, float, String, int, String, int, String, ?, ?)

- + UpdatePerscriptionType(String):boolean
- + UpdatePerscriptionAmount(float):boolean
- + UpdatePerscriptionStrength(float):boolean
- + UpdatePatientName(String):boolean - UpdatePatientID(int):boolean
- + UpdateDoctorName(String):boolean
- UpdateDoctorID(int):boolean
- + UpdatePerscriptionDetails(String):boolean
- + UpdateValidPerscriptionBeginDate(?):boolean
- + UpdateValidPerscriptionEndDate(?):boolean
- + RemovePerscription():boolean

# HomePageController

/something

## AccountController

- + FindPatient(patientName):
- + FindDoctor(name):
- + FindSpecialist(specialization):SortedArray + FindDonor(organ):SortedArray
- + ViewAppointments(specialization):SortedArray
  - + ReserveAppointment():
- + ViewDoctorAppointments(doctorName):bool + EnterVirtualAppointmentRoom(): Logout():bool

### + CreateAccount(username, password, email, address, phoneNumber):bool Login(username, password):bool