



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

DIPARTIMENTO
DI INGEGNERIA
DELL'INFORMAZIONE

Doctors

Web Application 2020-2021
Final Project

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Outline

- Objectives
- Data Logic
- Application Logic
- Presentation Logic
- Demo time



Objectives



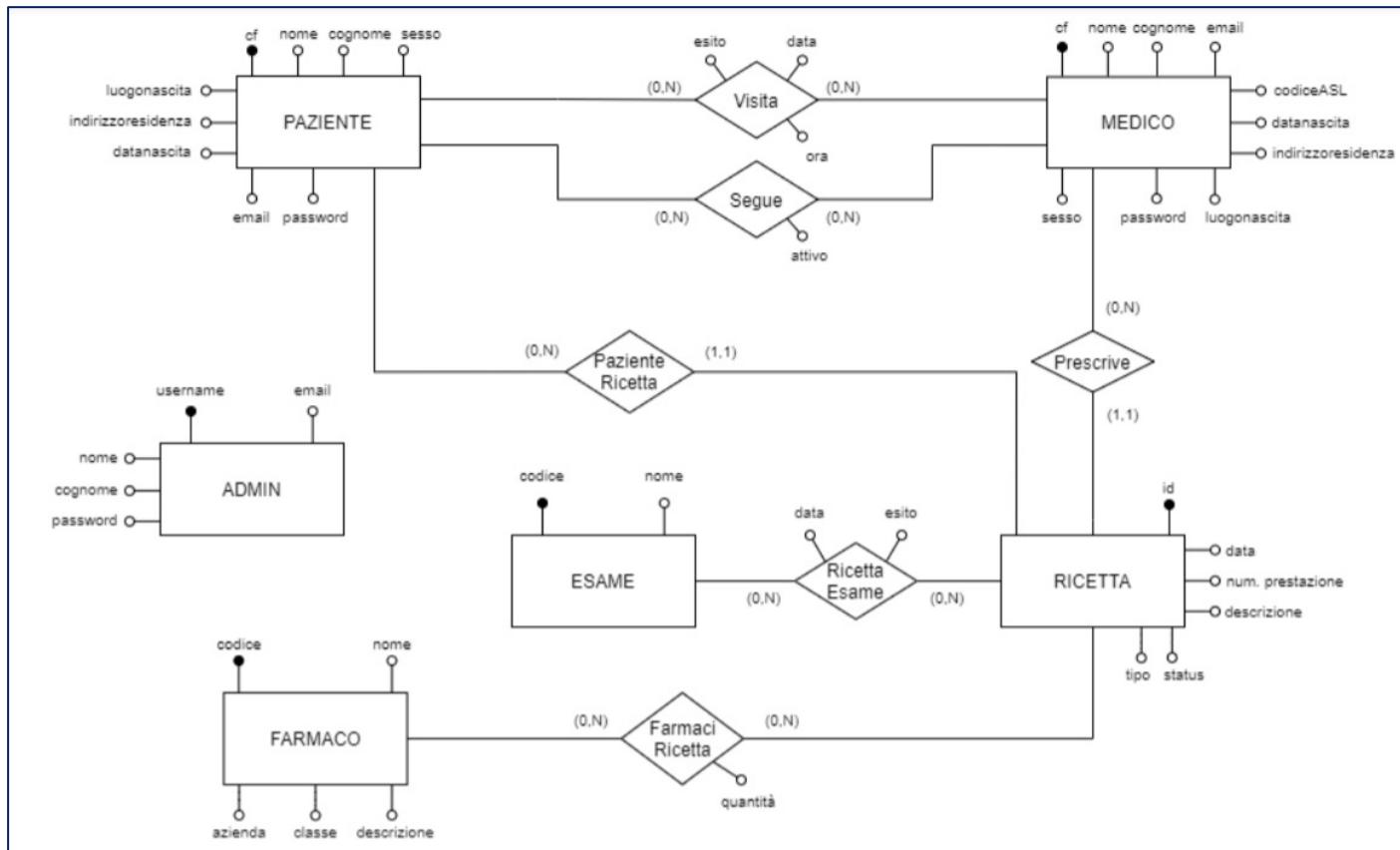
Main Functionalities

- Our case study is about a **group of doctors** that work together with a pool of patients, a very common medical organization.
- We want to implement a web application where both patients and doctors can interact easily
- In particular:
 - **doctor side**: features dedicated to facilitate the cooperation with patients like remote prescriptions approval, examinations manager...
 - **patient side**: requests for prescriptions, exams, checkups and so on, without the need to go in person at the medical office.

Data Logic



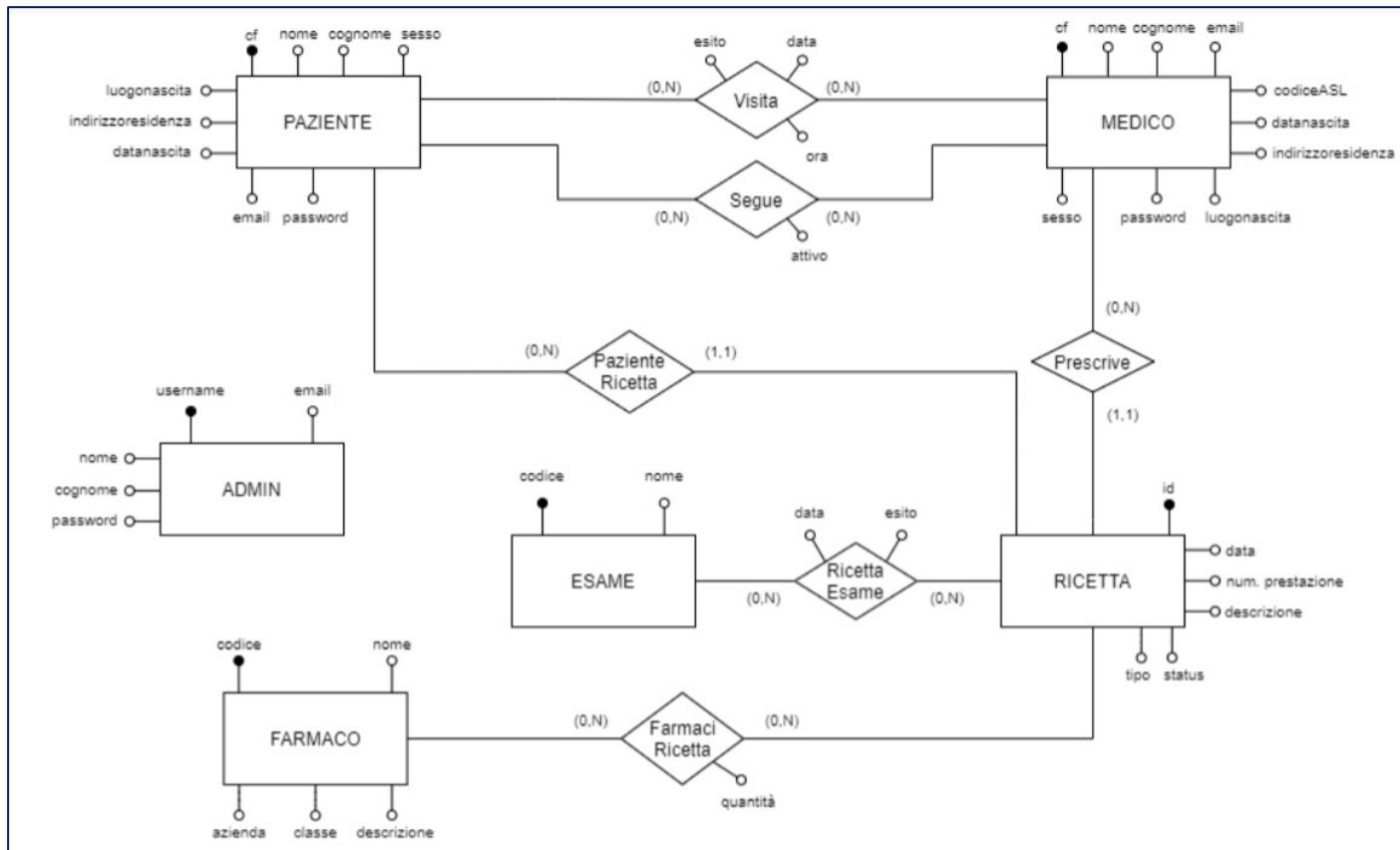
ER-Schema



- **Paziente**

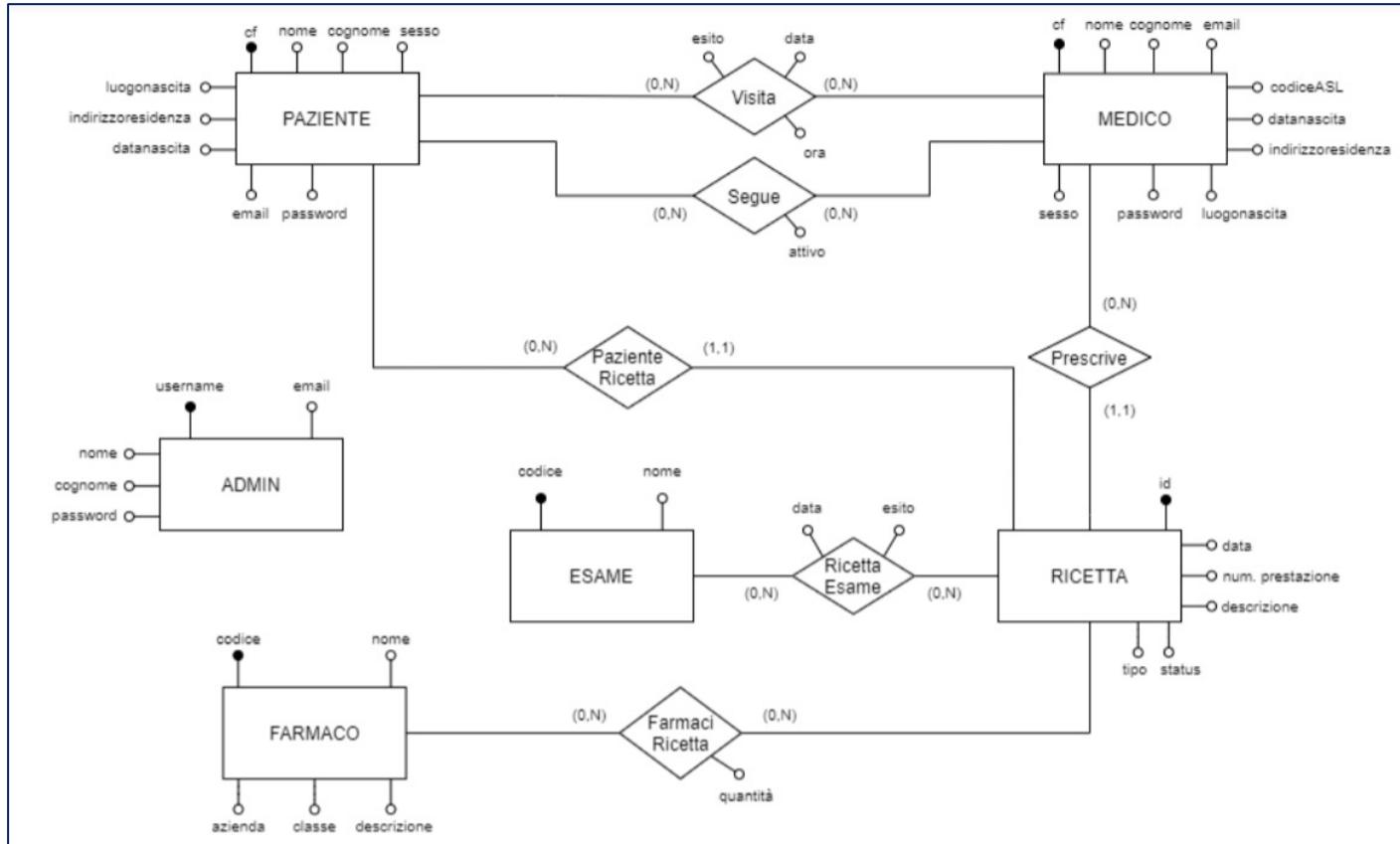
- contains info about a patient

ER-Schema



- **Medico**
 - contains info about a doctor

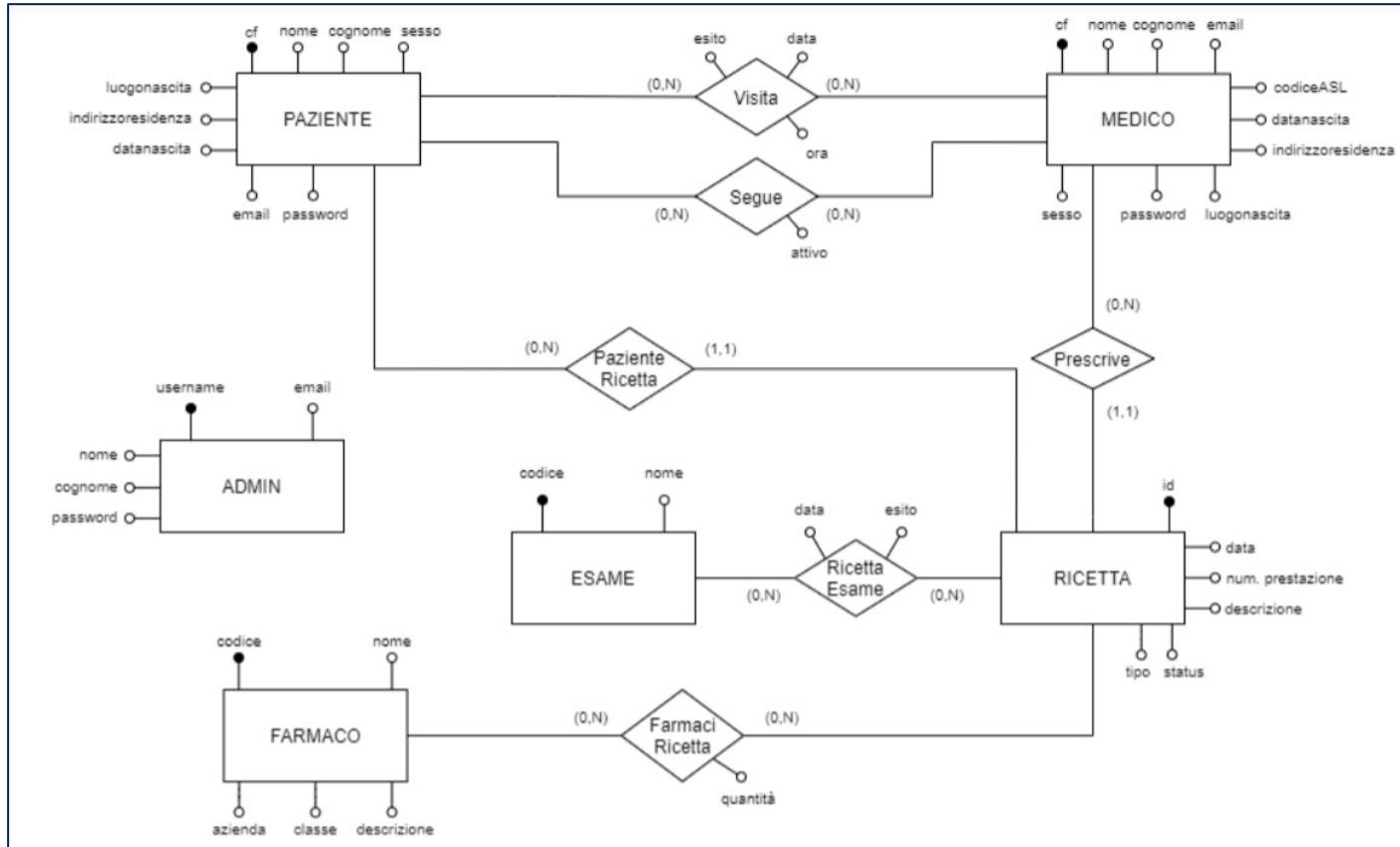
ER-Schema



- **Admin**

- manage specific function like deleting/inserting new doctors and new medicines in the db

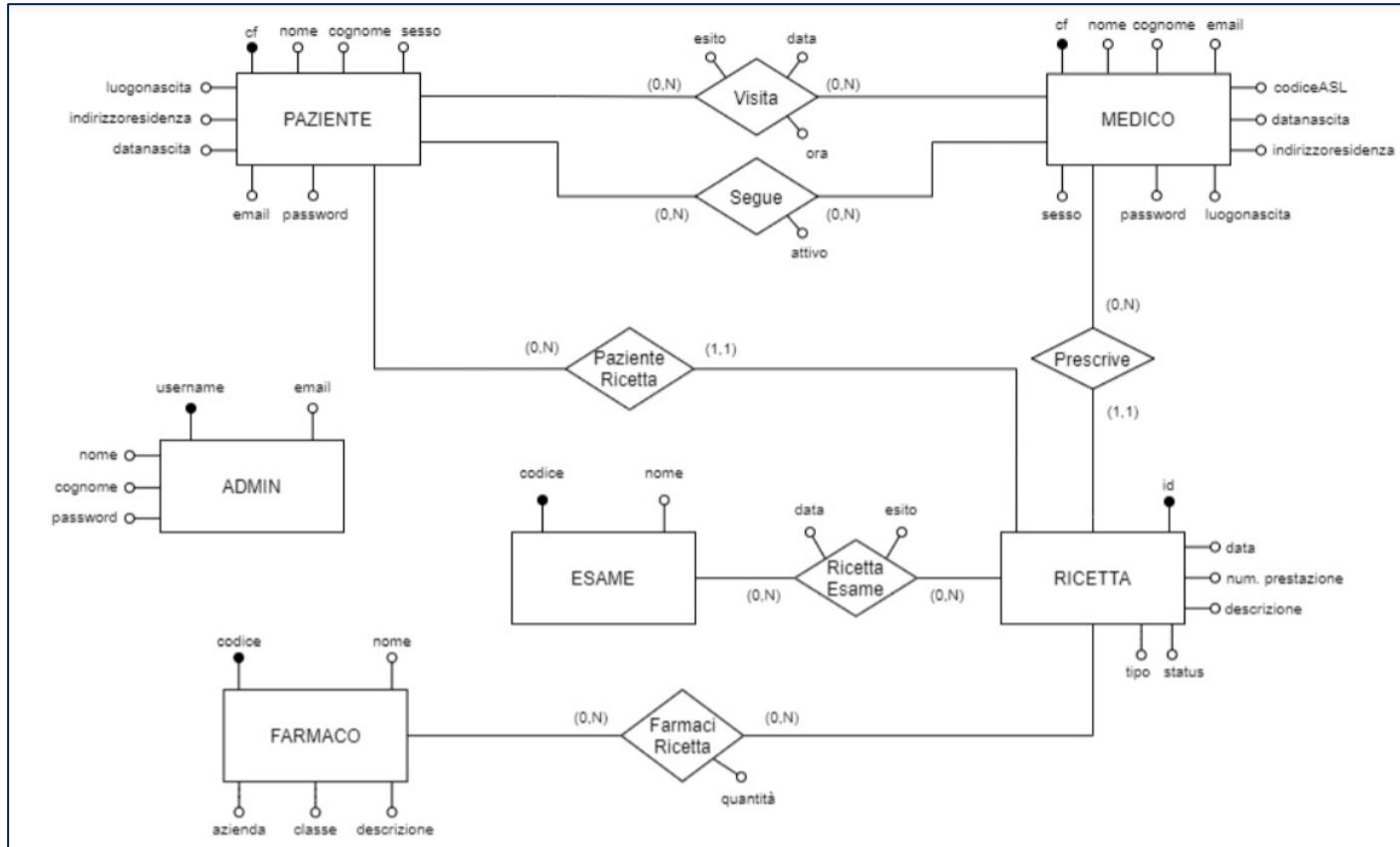
ER-Schema



- **Ricetta**

- contains prescriptions information: each prescription is uniquely identified by an UUID type

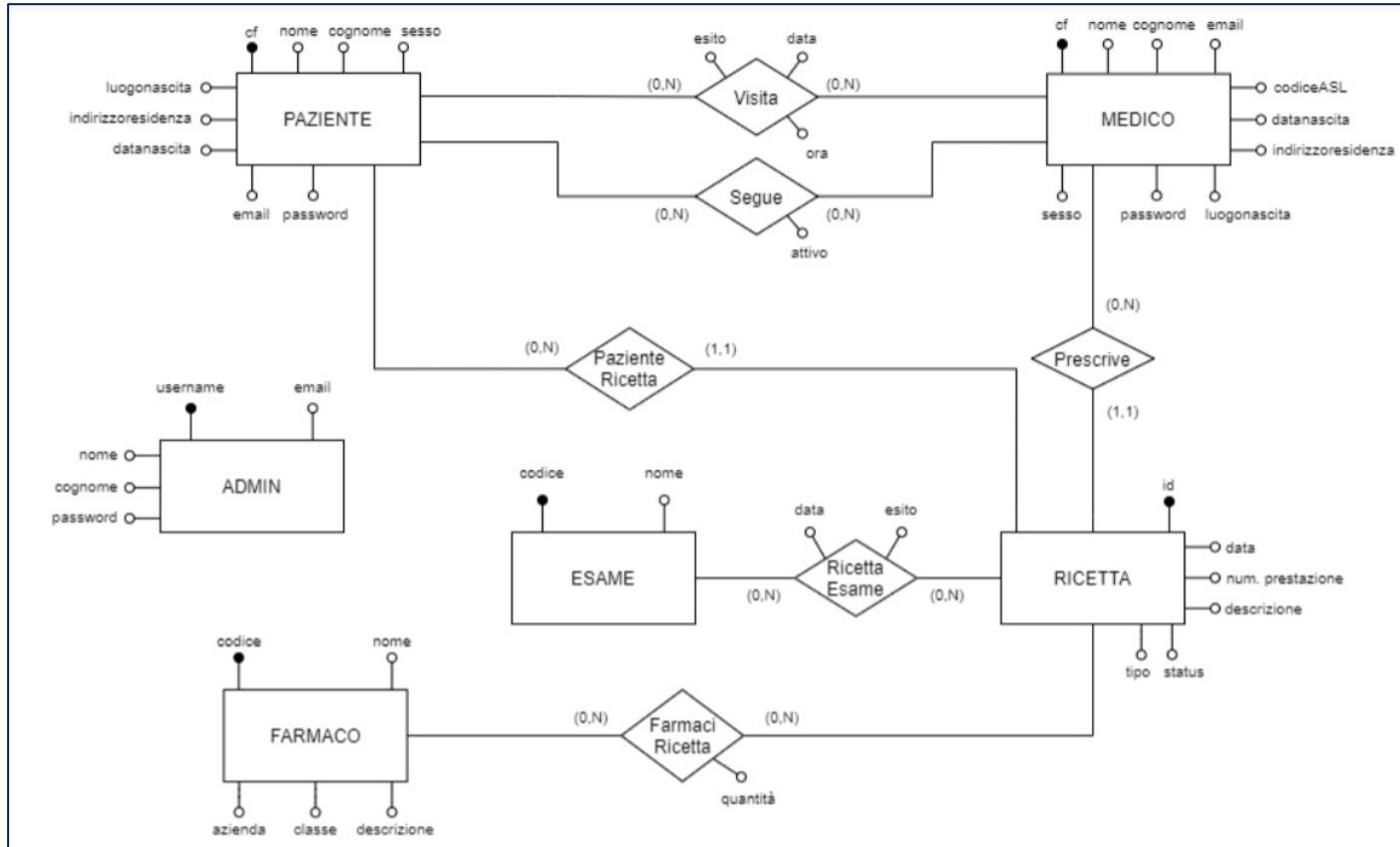
ER-Schema



- **Esame**

- represents a medical examination identified with a unique code

ER-Schema



- **Farmaco**

- represents a medicines identified by uniquely defined code

Application Logic



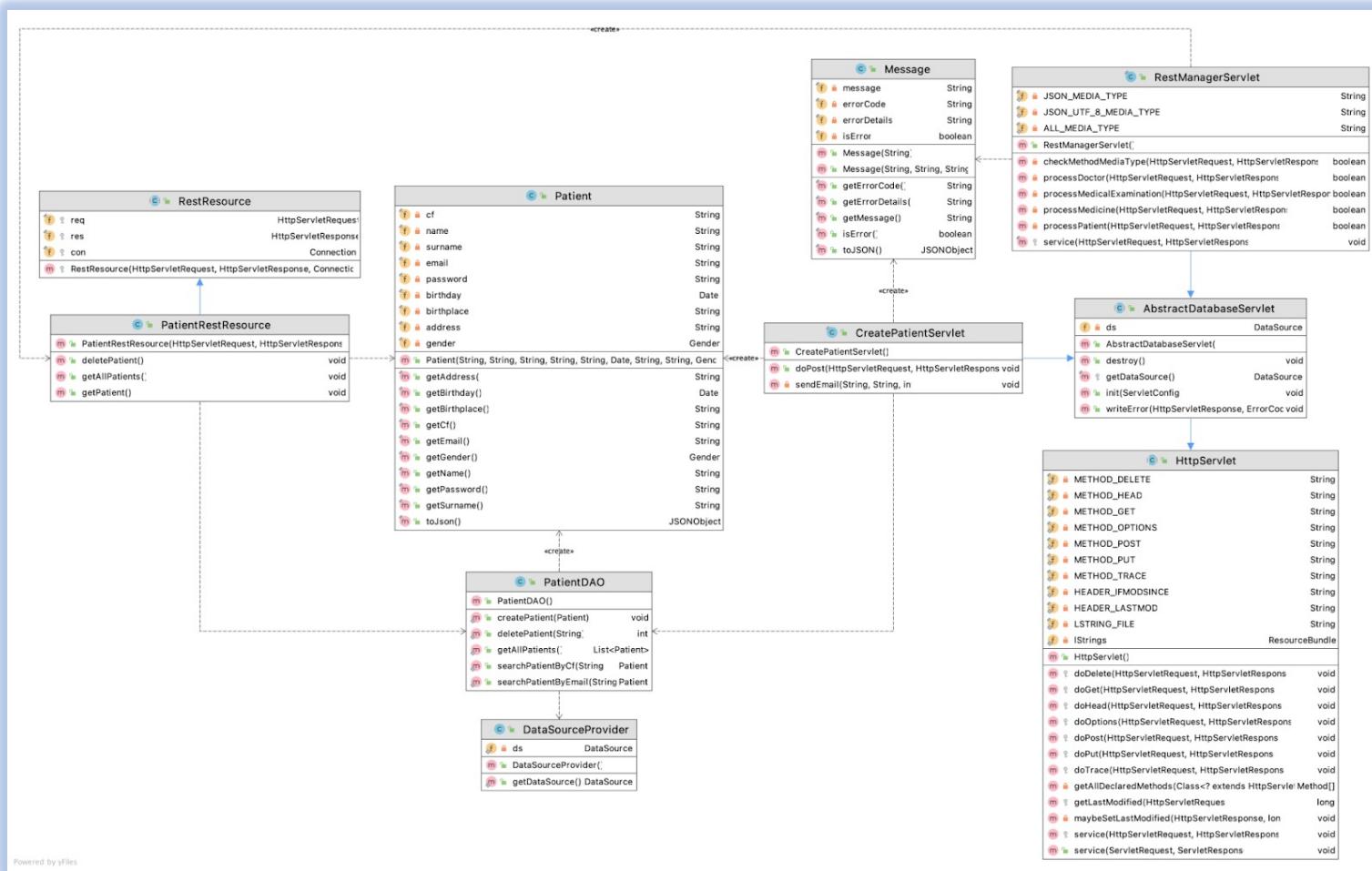
REST

Available REST resources:

- Medical Examination
- Medicine
- Doctor
- Patient
- Exam

/rest/medicalExamination	POST
/rest/medicalExamination/{doctor_cf}/{date}/{time}	GET
/rest/medicalExamination/{doctor_cf}/{date}/{time}	PUT
/rest/medicalExamination/{doctor_cf}/{date}/{time}	DELETE
/rest/medicalExamination/patient/{patient_cf}	GET
/rest/medicine	GET
/rest/medicine	POST
/rest/medicine/{patient_cf}	GET
/rest/patient/list	GET
/rest/patient/{patient_cf}	GET
/rest/patient/{patient_cf}	DELETE
/rest/doctor/list	GET
/rest/doctor/{doctor_cf}	GET
/rest/doctor	POST
/rest/doctor/{doctor_cf}	PUT
/rest/doctor/{doctor_cf}	DELETE

Class Diagram - Patient

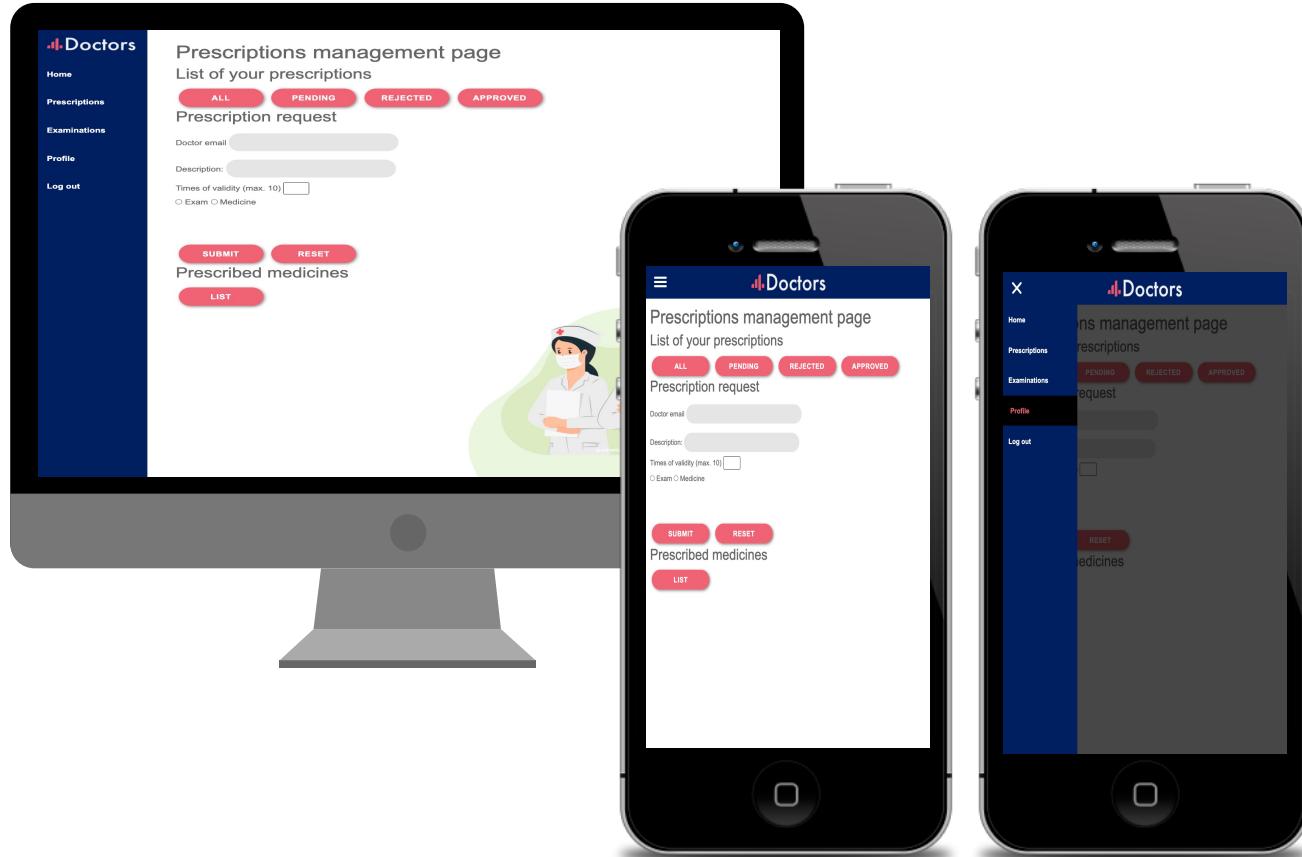


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Presentation Logic



Presentation Logic



Form validation

The image displays two screenshots of a mobile application interface, illustrating form validation.

Screenshot 1: Change E-mail

- Left sidebar:** A dark blue sidebar with the logo "Doctors" and the following menu items: Home, Prescriptions, Examinations, Profile, and Log out.
- Content Area:** The title "Change E-mail" is displayed above a text input field containing the letter "a". Below the input field, an error message in red text reads "The e-mail format is wrong!".
- Buttons:** A grey button labeled "New e-mail" and a red button labeled "CHANGE E-MAIL".

Screenshot 2: Birthday

- Content Area:** The title "Birthday" is displayed above a date input field containing the date "30/05/2021". To the right of the input field is a small square icon with a minus sign.
- Error Message:** Below the date input field, a red message states "The birthday can't be after the current date!".

Text at the bottom left: "Form validation is only performed when the submit event is triggered."

Password

Pwd Encryption

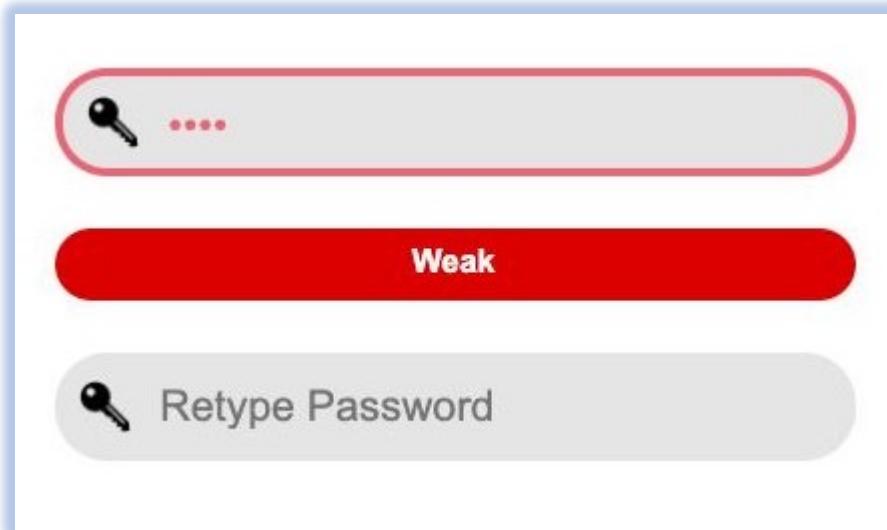
Frontend:

- Performed through CryptoJS
- Using SHA-3 algorithm

Backend:

- MD5 encryption

Pwd Validation





Demo time