DATABASE STRUCTURE

PRIVATE

USER
String Name
enumerable Country
String Institution
bool Authentificated Doctor?

SUBMITTED_RECORDS
USER_ID
Date Submission date
SHA1 Password style (salted) hash of patient ID
case_study_ID

SHARED

CASE_STUDY
STRUCTURED DATA
in JSON format
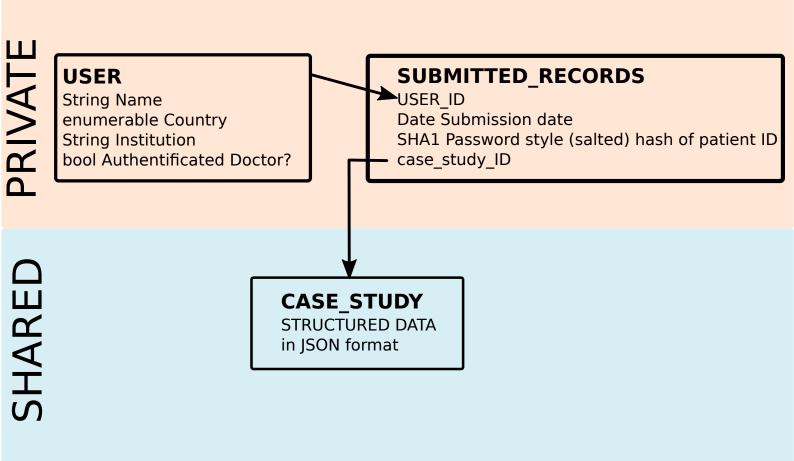
WHAT THIS ARCHITECTURE ENABLES?
- I am doctor, I want to delete all my input
- I am doctor, I want to delete last week
- I am patient, I want to delete my case
- If I see shared data I cannot get back to patient/clinitian
- Even administrator of database with full data access cannot see Patient ID

WHAT QUERIES WE WANT TO DATABASE TO RETIRN?
- Get all cases with given age range and given underlying health condition

WHAT SEARCH CASE BACK END DOES?
- Takes the data selection from database, and then does analysis in Java or Python
  and outputs HTML (future: distributed execution of query + query cache)

SCALABLE ARCHITECTURE OF SOLUTION (not for demo)

Submit case → Java   Main MongoDB

Mirrored MongoDB
Python Flask or Java

N replicas...

Mirrored MongoDB
Python Flask or Java

Load balancer

Search case
API Big data

main database   analytics engines