SNP Web-portal

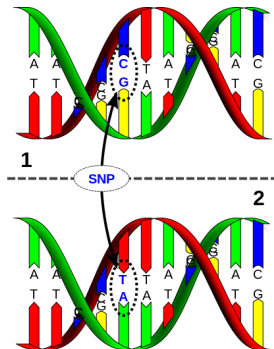D. Tosoni, D. Sicignani, U. Buonadonna

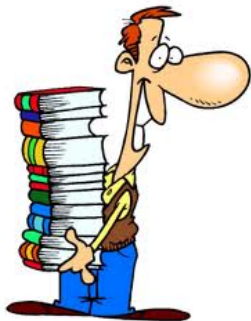Biomedical Informatics, 2014

Project description

Medical background

Single-Nucleotide Polymorphism

DNA sequence variation occurring when a Single Nucleotide — A, T, C or G — in the genome (or other shared sequence) differs between members of a biological species or paired chromosomes.

Goal

Allow users to store and query Single Nucleotide Polymorphism genomics variants.

How to reach it?

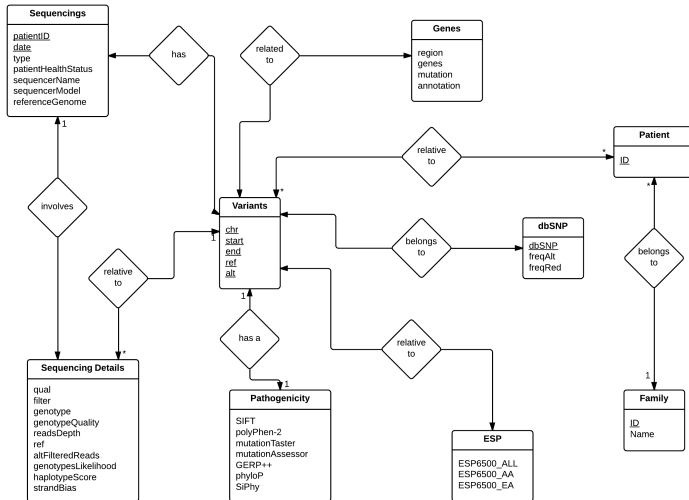Realization of a **Web Portal**.

Functionalities

Super User:

- create a "family" with one or more members
- authorize users
- modify inserted values

Authorized User:

- search for a patient, gene, mutation, . . .

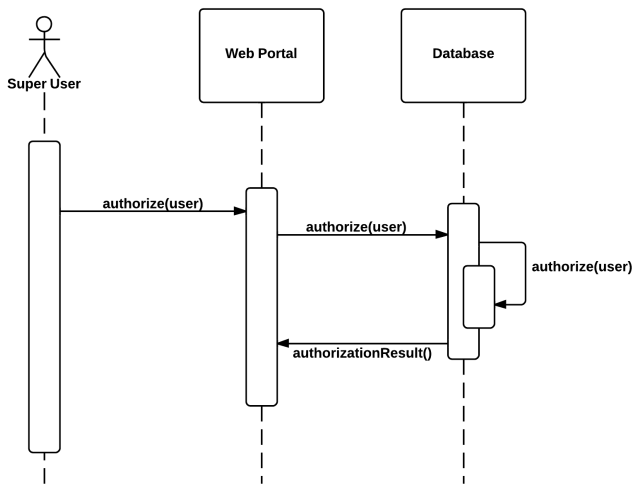# Project Structure

Database:

Application logic:

query

Website (User Interface):

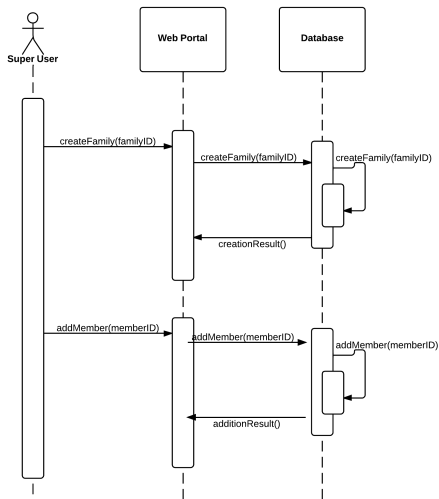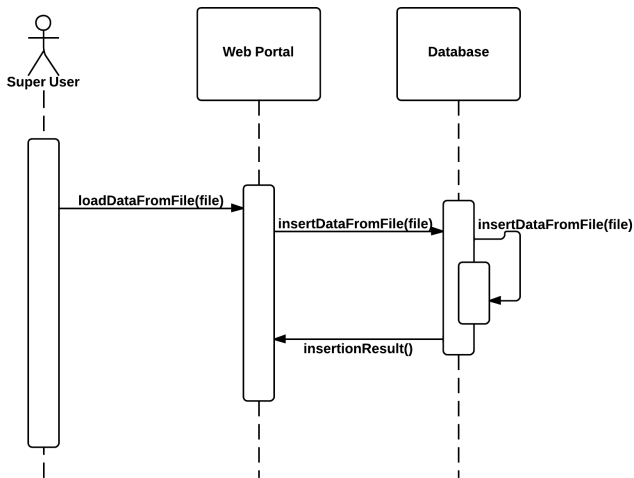Enables to load and retrieve data via user-friendly UI

Use cases

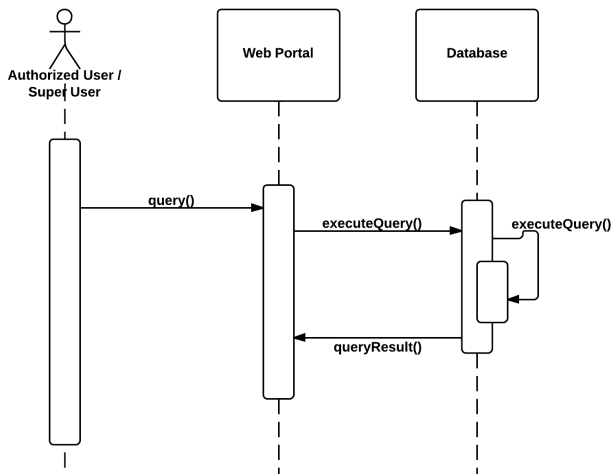# Use case diagram: Super User authorizes an User

Use case diagram: Super User creates/populates a family

Use case diagram: Super User loads data

Use case diagram: Authorized User executes a query

Software architecture

To realize the project we will use:

Database: **MongoDB**

Website: **Javascript**