Distributed Software Development

The Development Group

Real-Time Bridge Monitoring Requirements & Design

Overview (I)

- Team Organization
  - The Development Group
- Requirements
  - Use Cases
  - Mock-up
  - Non-functional Requirements

Overview (I)

- Design
  - Scope
  - Interfaces
  - Technologies
  - Architecture
    - Parser
    - Data Relations

Team Organization

- The Development Group

Andrea Bottoli (PoliMi)

Lorenzo Pagliari (PoliMi)

Marko Brčić (FER)

Ghazal Shojaee (PoliMi)

Dzana Kujan (MDH)

Jörn Tillmanns (MDH)

Miraldi Fifo (MDH)

Nikola Radisavljevic (MDH)

Project plan changes

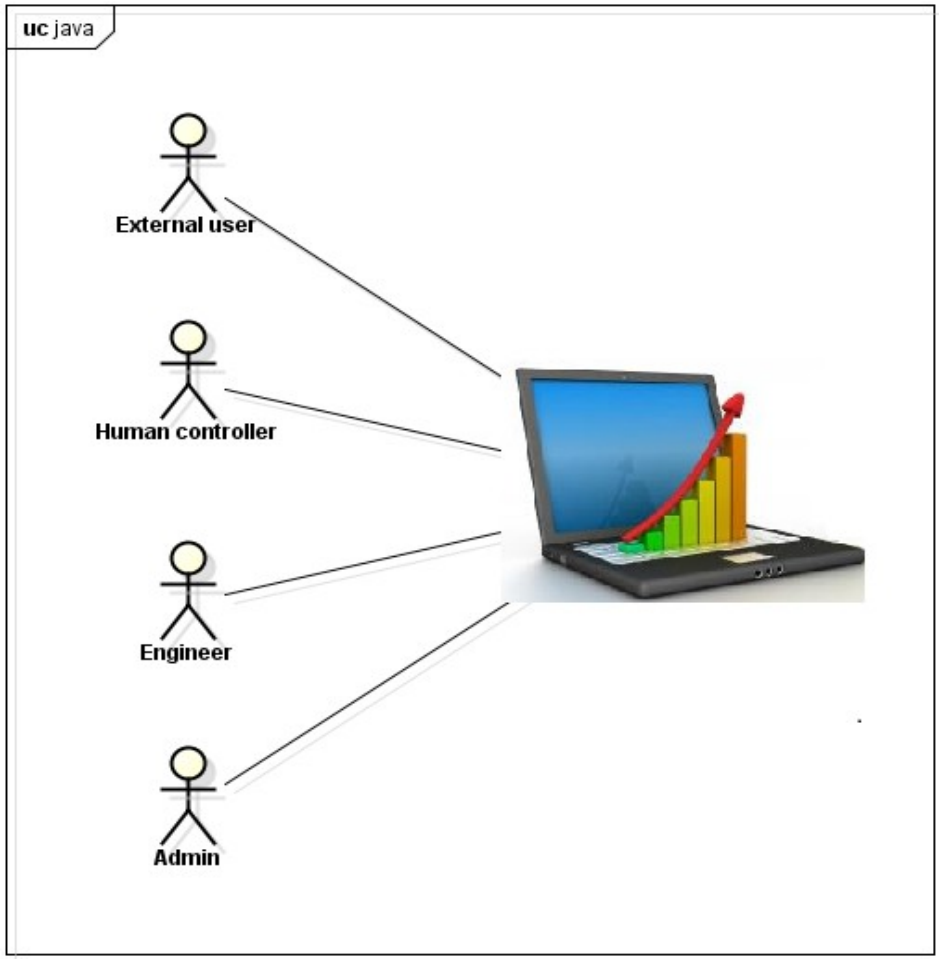
- New team member (Ghazal Shojaee, PoliMi)
- Roles distribution

Name	Initials	Responsibility (roles)
Andrea Bottoli	**AB**	**Project Manager**
Dzana Kujan	***DK***	***Team Leader***
Marko Brcic	MB	Documentation manager
Lorenzo Pagliari	LP	Design manager
Miraldi Fifo	MF	Testing manager
Jorn Tillmanns	JT	Database manager
Nikola Radisavljevic	NR	Integration manager

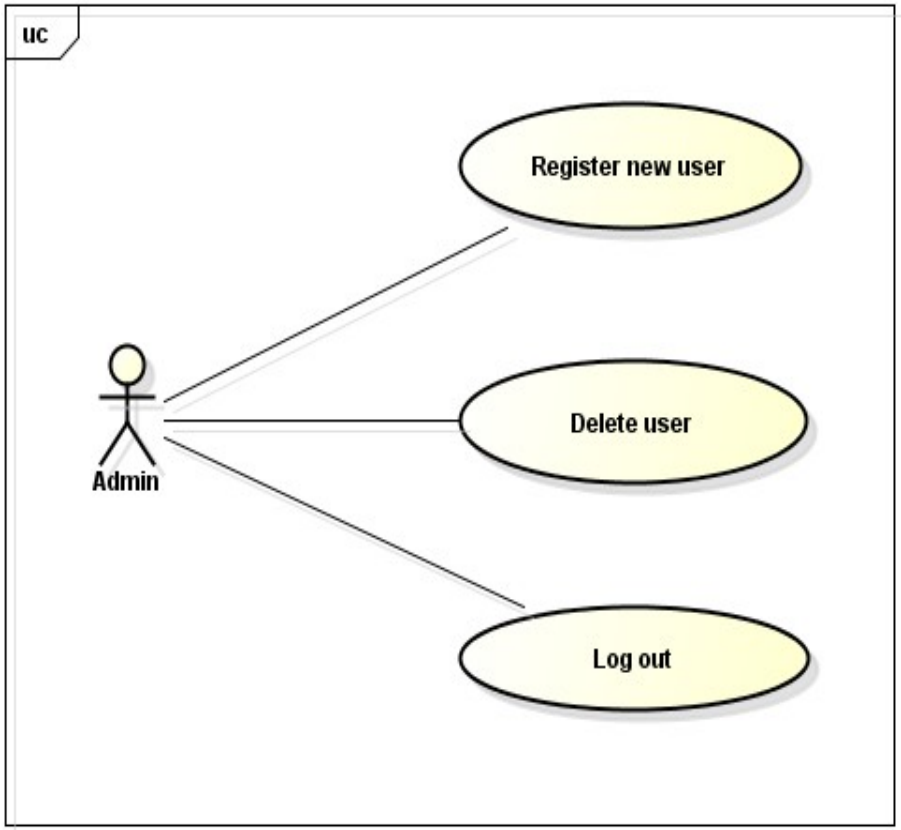
Project Plan changes

- Functionalities for each prototype defined
- Alpha prototype plan revised
- New risk: Documentation and source code in italian (7000 lines of code)

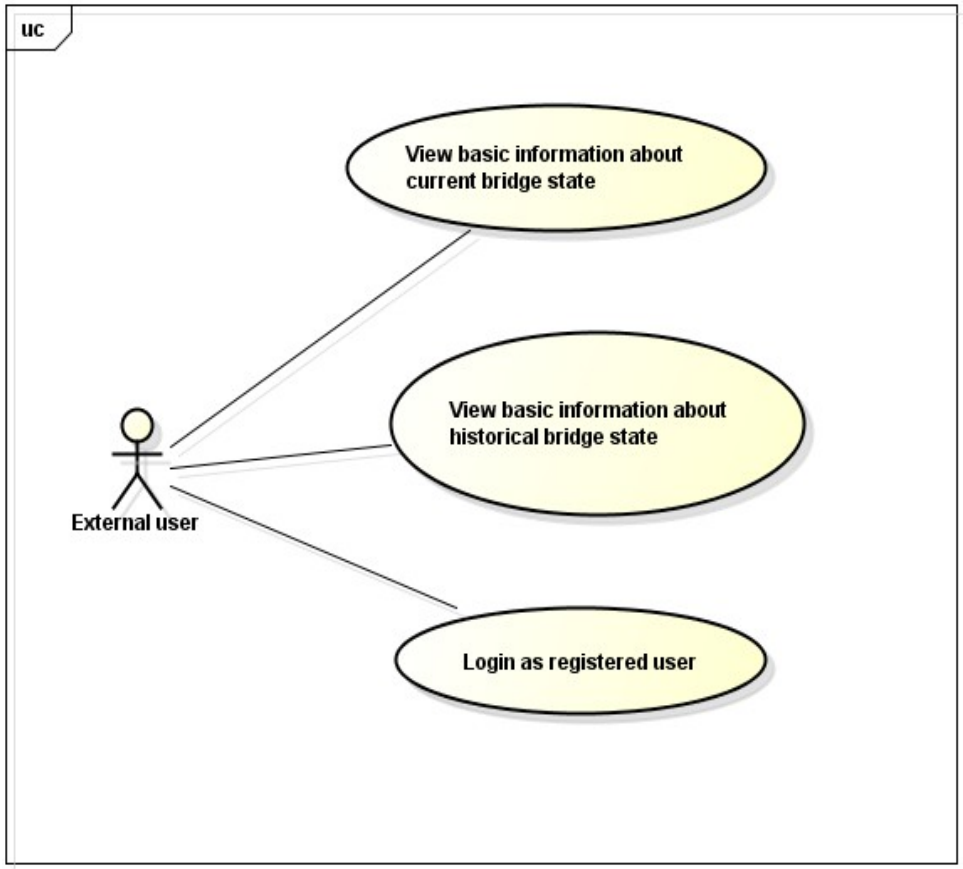
Use Cases



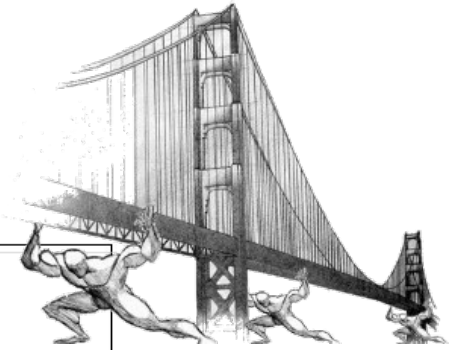
Use Cases

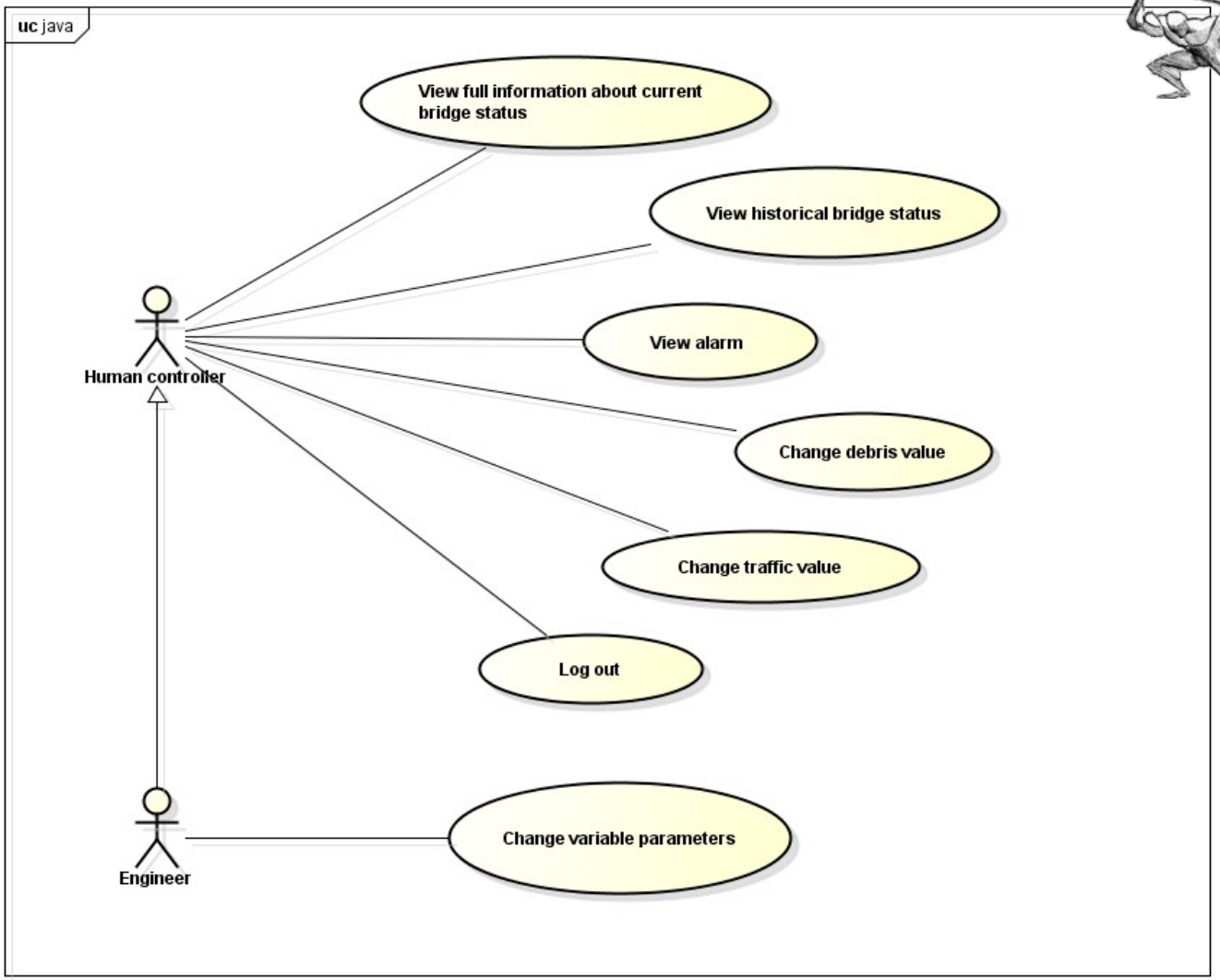


Use Cases

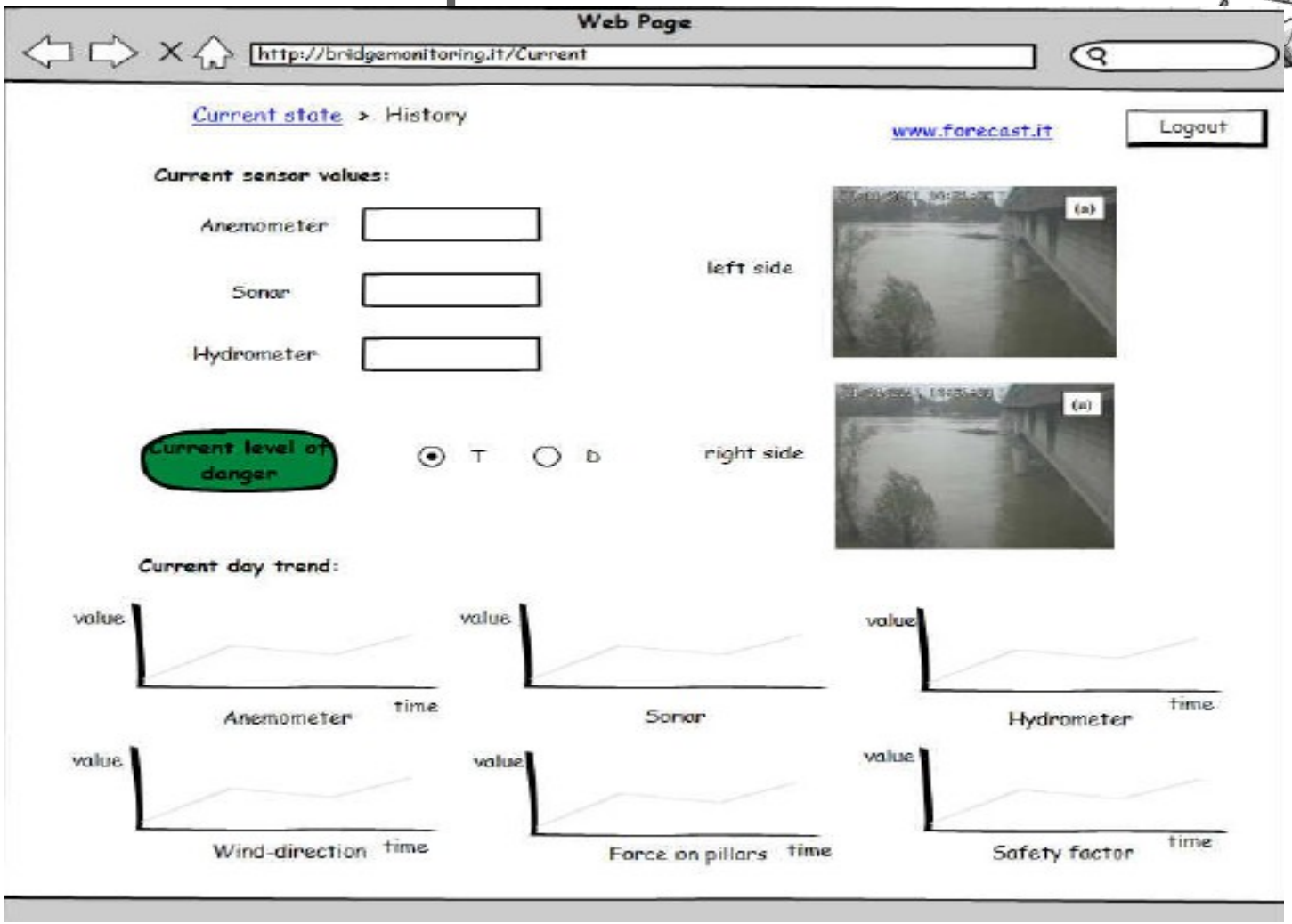

uc
View basic information about current bridge state
View basic information about historical bridge state
External user
Login as registered user

Use Cases

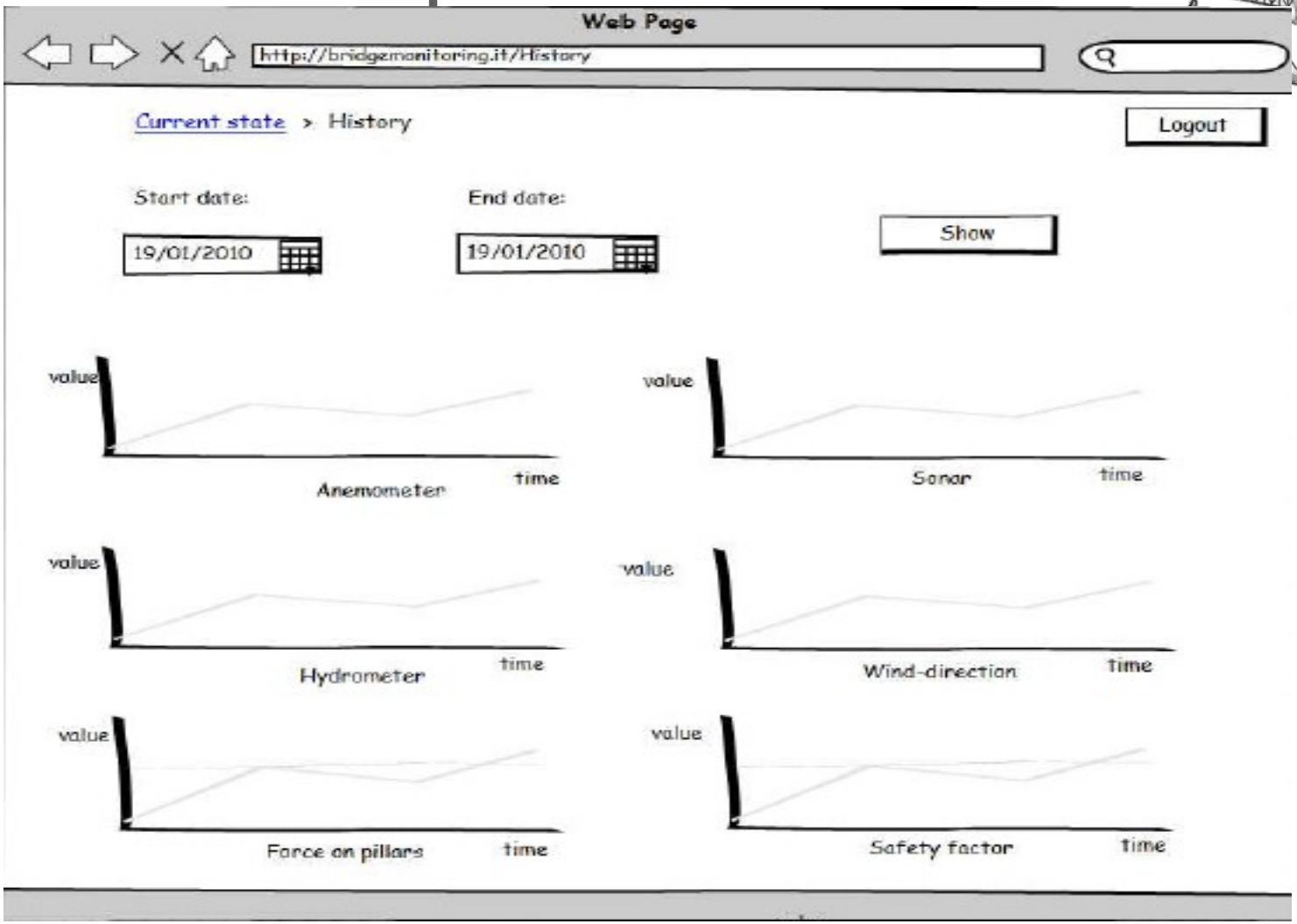



uc java
View full information about current bridge status
View historical bridge status
View alarm
Change debris value
Change traffic value
Log out
Change variable parameters
Human controller
Engineer

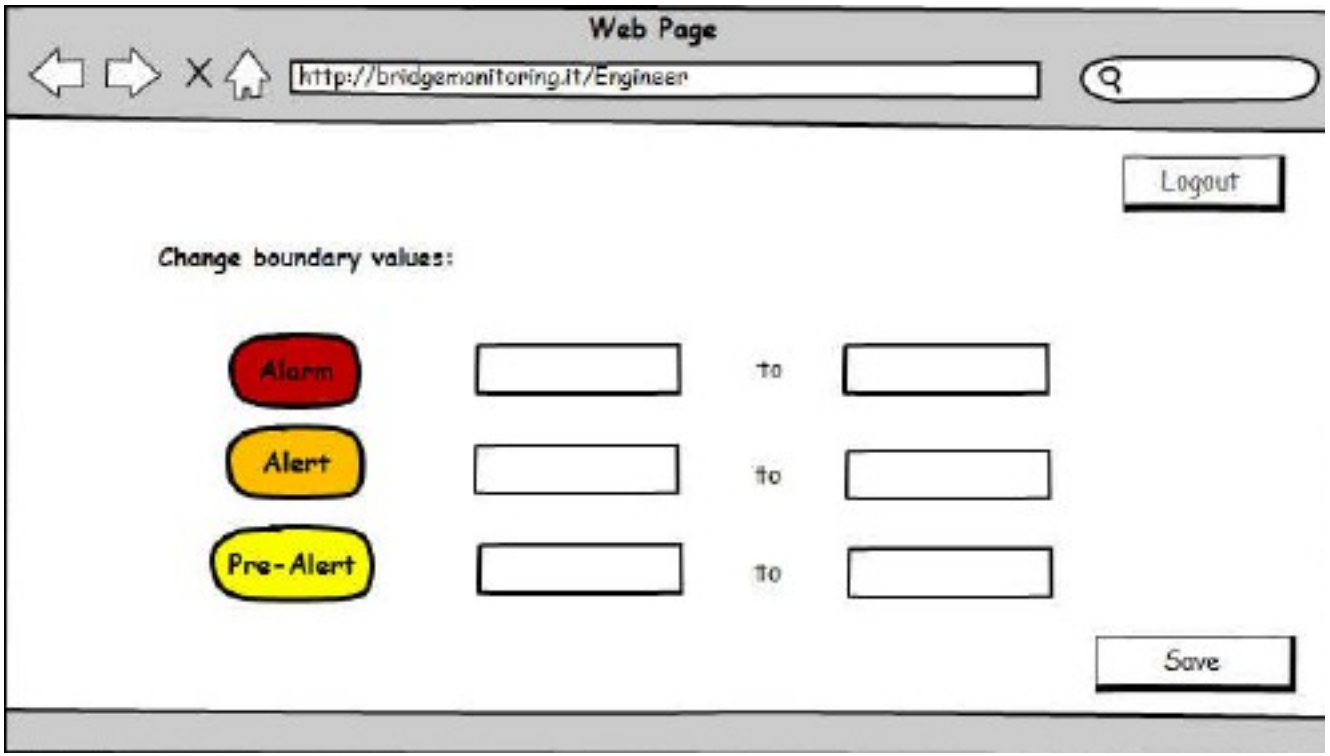
Mock-up for Human Controller



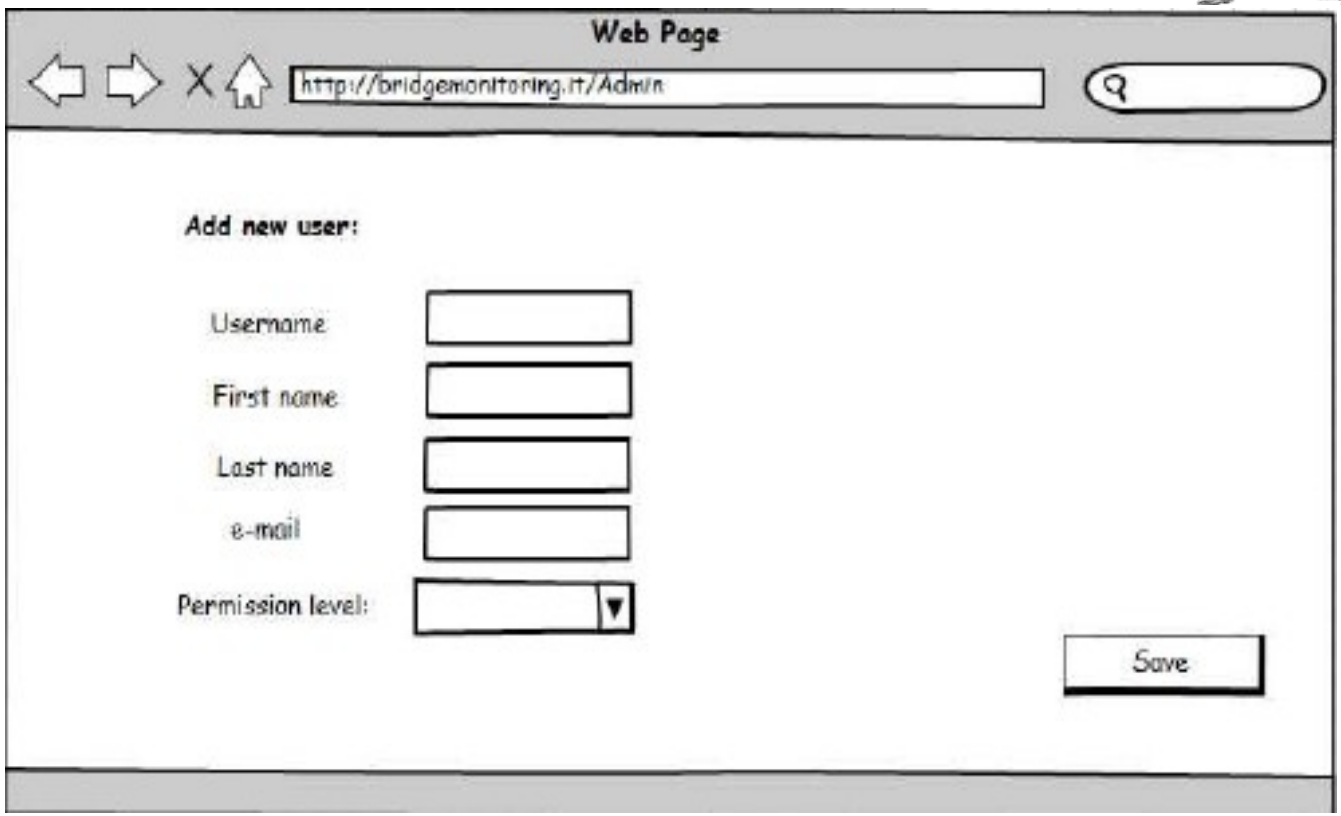
Mock-up for Human Controller



Mock-up for engineer



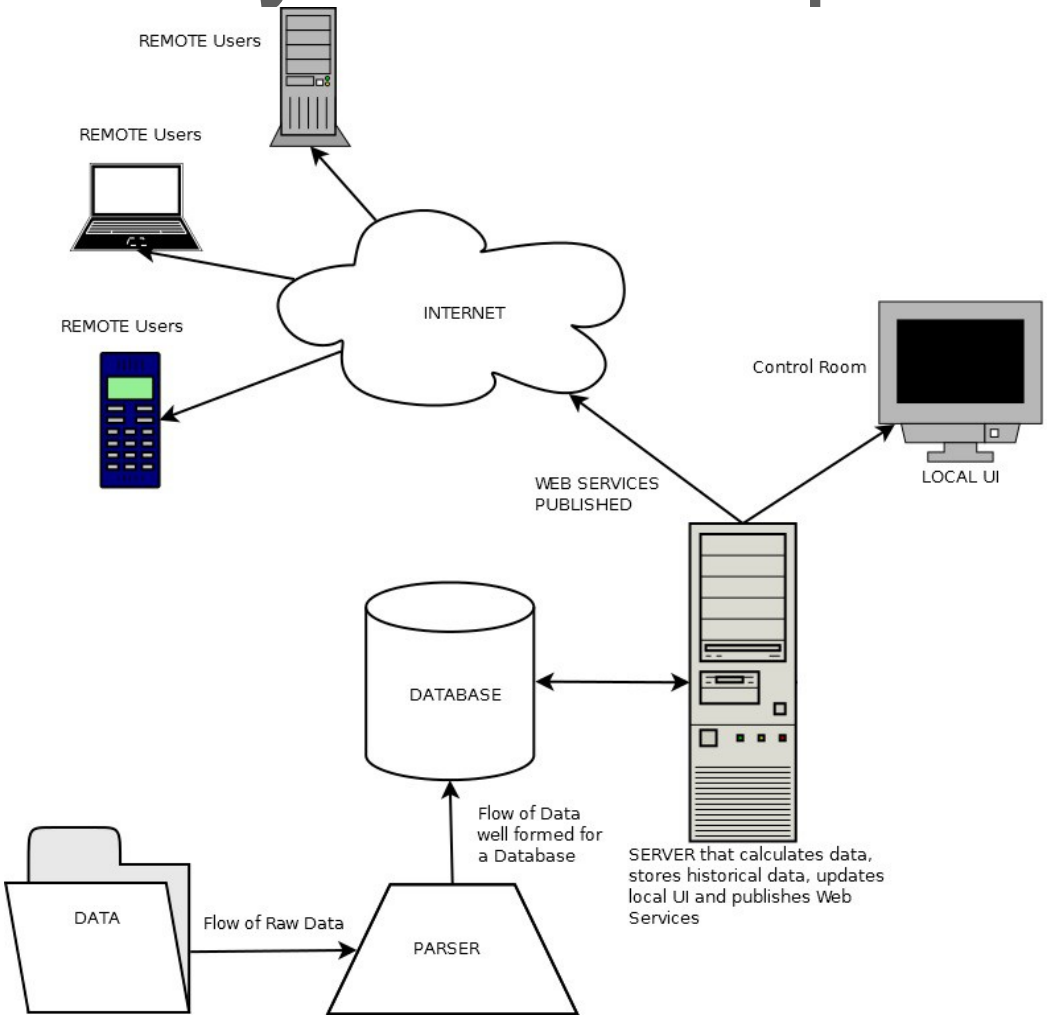
Mock-up for admin



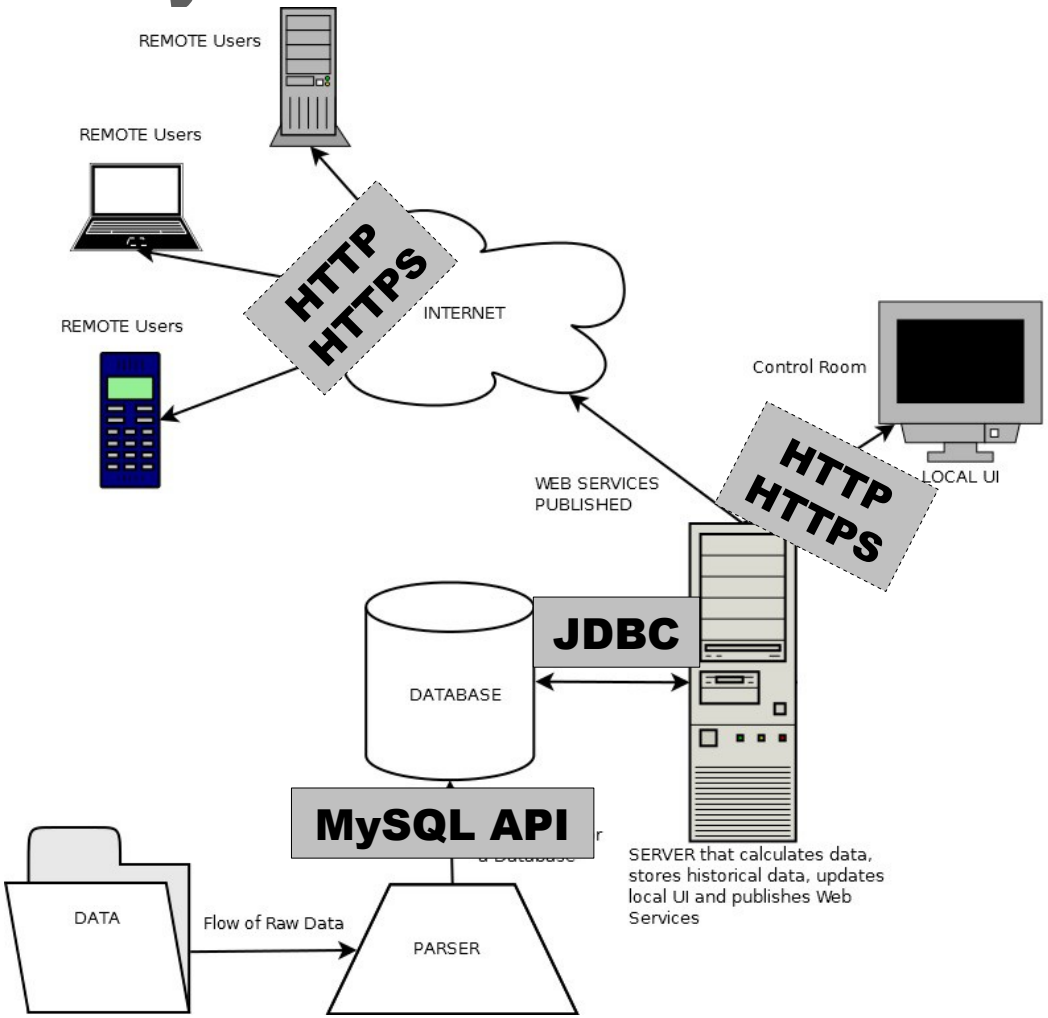
Non-functional Requirements

- Confirmation pop-up windows
  - Are you sure to delete this user?
  - Are you sure to change the bounds of risk factors?
- Data updates every 10 minutes – 1 hour
- Different permission levels

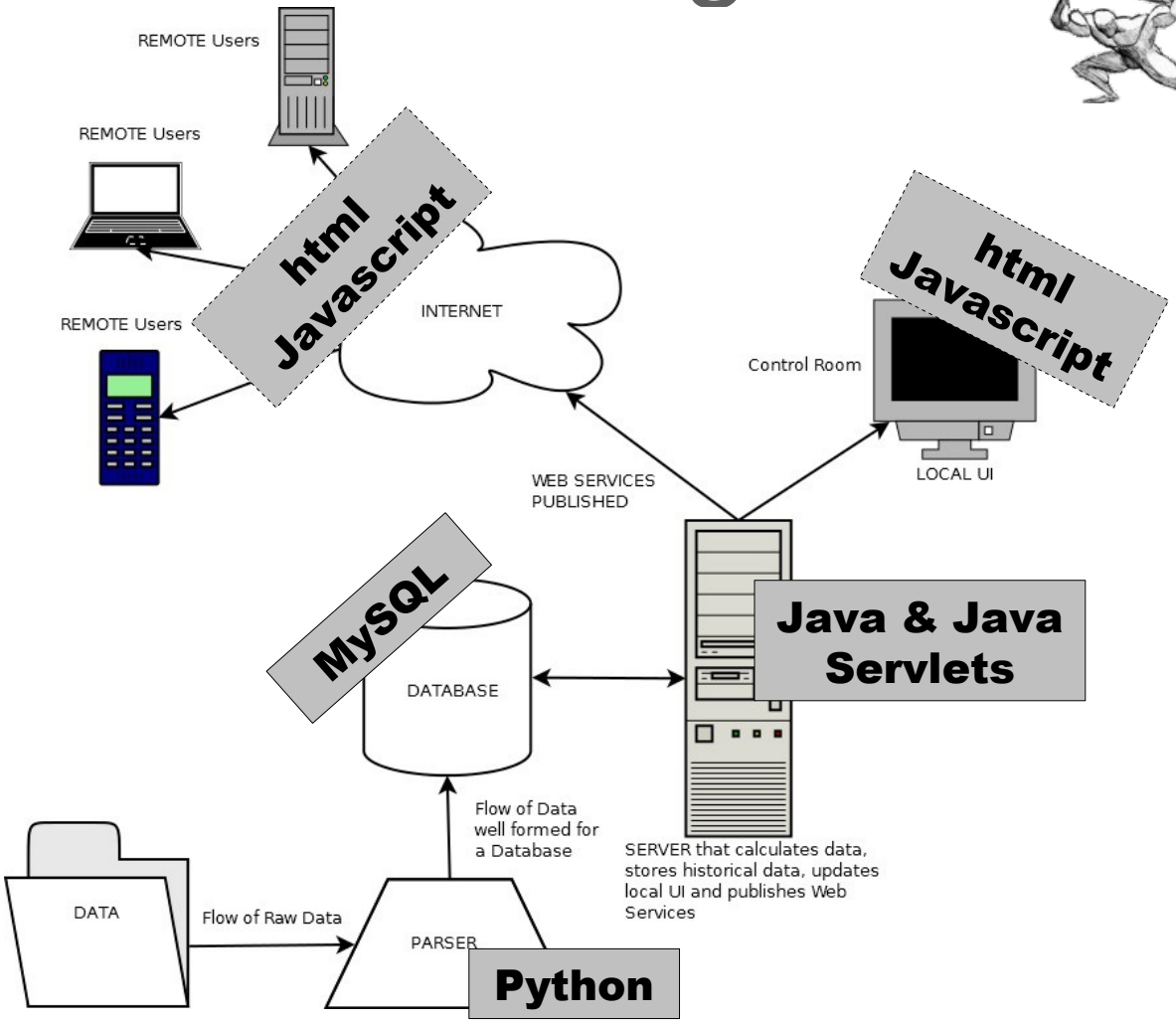
System Scope



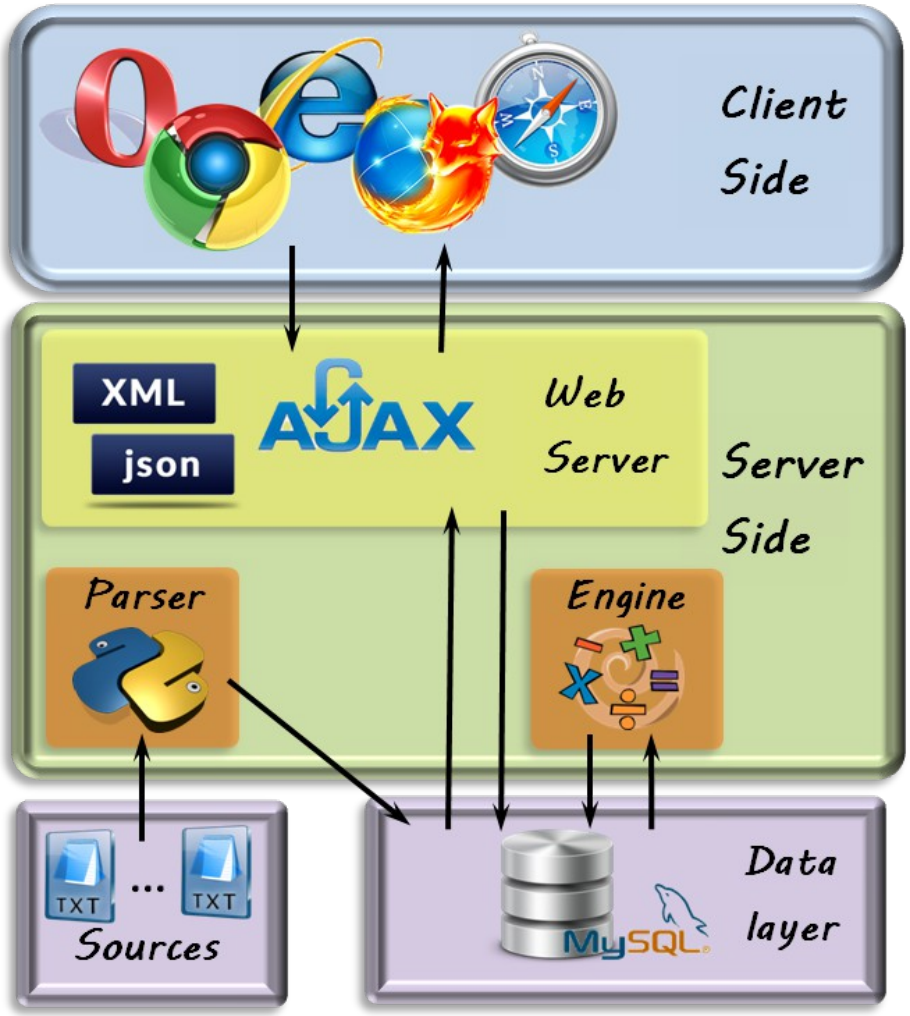
System Interfaces



Technologies



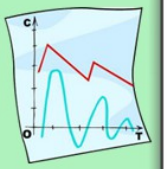
Architecture



Parser

Parser Engine

Raw data (1sec)



Data Relations

Raw data (1sec)

Grouped data (10min)

Grouped data (1h)

Grouped data (1week)

Users

Constants π & α β Variables

Technical devices

Images

FER

POLITECNICO MILANO

MÄLARDALENS HÖGSKOLA

Question Time

Thank You

- Thank you for your attention :-)