

Screening pipeline construction application

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Outline

- 1 Introduction
- 2 Results
- 3 Further developments

Motivation

- Costs of screening rise exponentially with every step
- The abundance of experimentally generated data tends to overwhelm researchers
- Data needs to be accessible at any given step of the process

Problem Statement

Provide the software for:

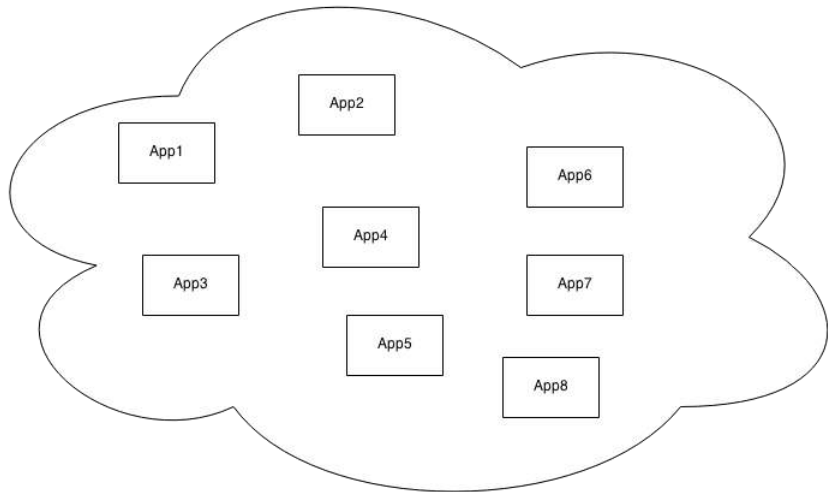
- 1 User-friendly data storage
- 2 Pipeline building through config files or scripts
- 3 Data access at any stage of the screening process

Project Idea

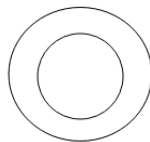
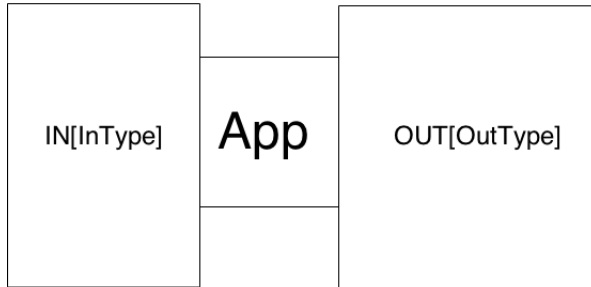
- Build a database for experimental data storage on every step of the process with the code for accessing it
- Integrate the existing software into the new-built one
- Provide the interface for data access and manipulation

- Chosen framework for database interaction: Slick for postgresql
- Chosen database structure: make a table for every screening stage and gives a researcher access to any of them modelling the access to data at any given step
- Built an abstraction for wrapping existing applications
- Adapted the first application into the system

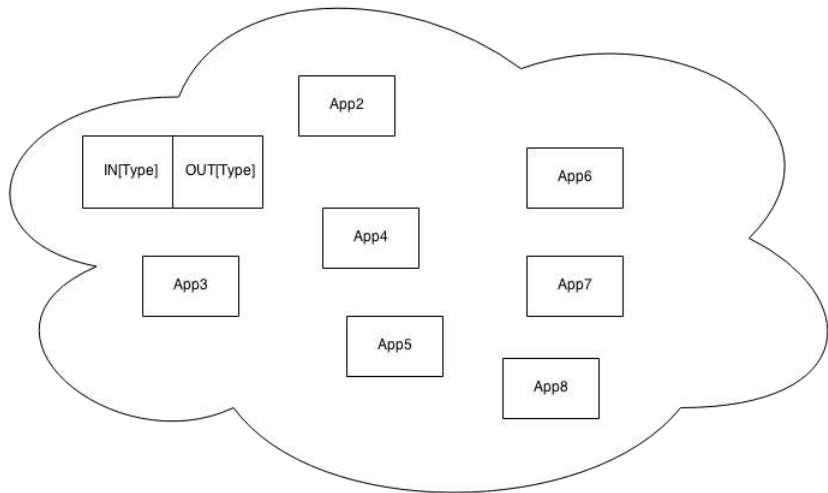
Progress contd.



Progress contd. 2



Progress contd. 3

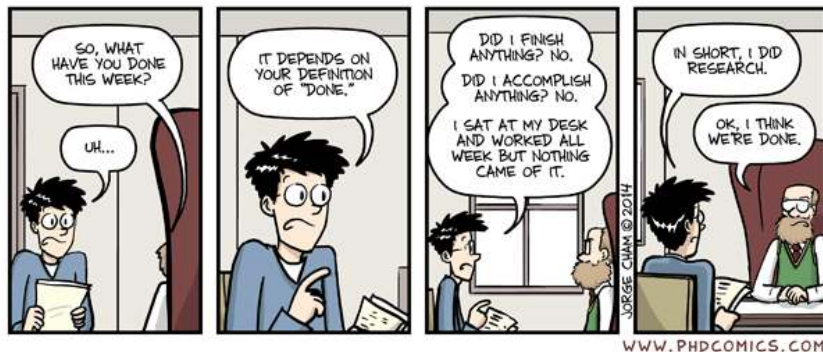


Further developments

- Build the existing applications into the system
- Build a user-friendly interface
- Provide a scripting/configurable means for pipeline building

For some healthy borrowing

Thanks for your attention!



<https://github.com/zmactep/ylab/tree/adding-database-support>