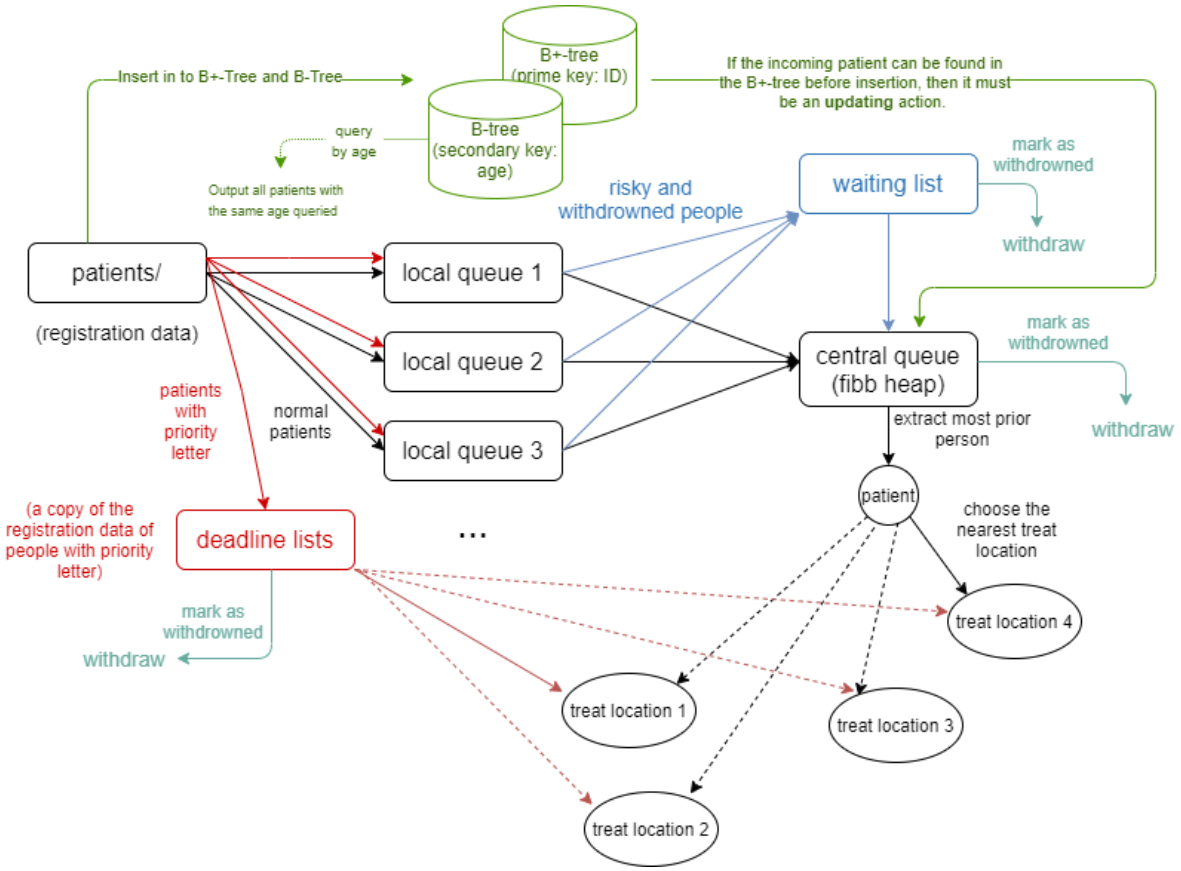
Computing Assignment 2, Group B1

This is a brief introduction to the structure and usage of the computing assignment of our group.

First we would like to thank you for your patience to test and grade our work.

To help you better test our programs, we write this instruction.

How does it work?



We store the registration data in the csv files under the folder `patients/`. Each line of the csv files represents a registration,
including:

- The registry where the patients get registered and put into the local queues
- Personal information of the patients, such as the identification, name, profession, date of birth, risk, etc.
- A deadline for the treatment if the person has a prior letter.

The csv files are organized in time order with each file containing the registration data during 12 hours, and are read by our program twice a 'day' to simulate the registration process.

The registration data will be stored in the local queues with respect to the registry where the patients get registered, and then sent to the central queue (a fibonacci heap) twice a day.

The central queue receives patients from local queues, each time pops the most prior one and sent that patient to the nearest
treatment location that has no yet reaches it maximum capacity.

How to use it?

1. To build the program, please first type make in the terminal under the project directory.
2. Then type `./start` to run.

   The simulation period is 3 months.
3. The program reads the data stored in the `.csv` files as input.

   The program also generates `.csv` files containing random data as input, but you can also pass your own data (user created data) to the program by modifying the information of patients of add new patient, operate in corresponding `.csv` files in folder `patients/` when the system pause. Then type `c` to continue.
4. You can choose how to order the weekly report, "0" for name, "1" for profession category and "2" for age group.

   When the program is finished, you can check the folder named `weeklyreport/` and `monthlyreport/` , where the report files are stored.
5. The source data of registrations and withdraw are stored in folder patients and withdraw , each csv is named according to date.

   If you want to manually withdraw, please change the corresponding file in `withdraw/` in the same format of other data. However, it is possible that the one you choose to withdraw does not exist since the registration id is generated automatically by certain rules. The default cases are enough to demonstrate how to perform "withdraw" by our program
6. When all done, you can see patients in all ages in folder `query_result/`, this is realized by using a B-Tree with patients' ages as a secondary key value.