

Programming Project

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1 Proposal

In the proposal we specify the *scope*, what the project will and will not include.

1.1 Project Choice

You may be given a reasonably detailed scenario. You may be given just a project title. You may be invited to choose your own (look at the list of project ideas if you are stuck). Whatever the project, it must have sufficient scope to demonstrate a variety of programming techniques and data structures.

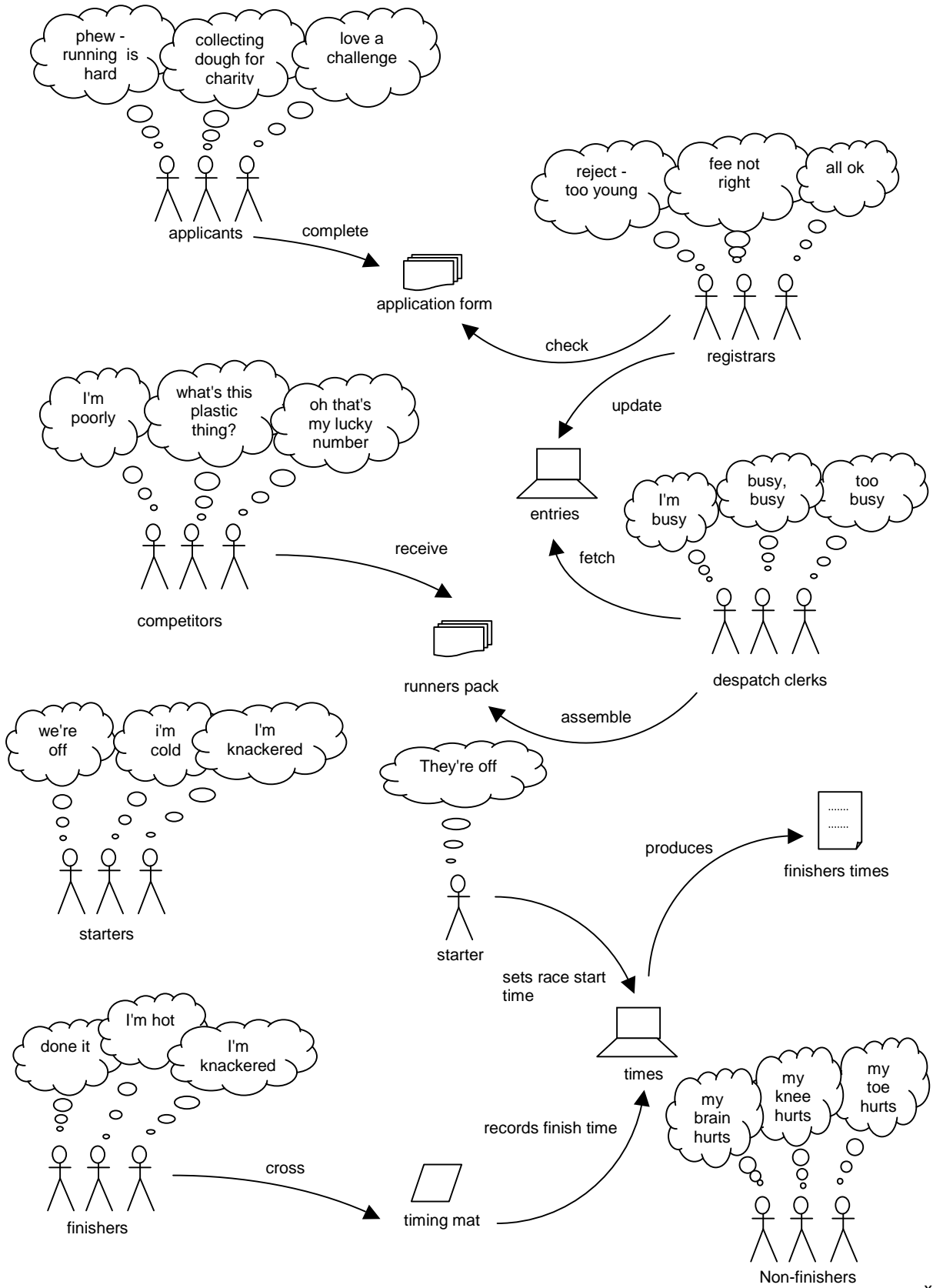
The programming project I have chosen is The City Marathon - Management of Entries and Results. The project is about registering applicants for the City Marathon and recording their results on race day.

1.2 Rich Picture

Sketching a rich picture, with scratchings out and odd jottings, on the back of an old envelope, is a good way to start. In constructing a rich picture you become involved with the scenario, you identify essential points, you begin to understand what is going on, and it helps the reader understand what it is you are proposing to do. See the rich picture on the next page.

You may remember we developed rich pictures in the study of Systems Analysis and Information Systems.

City Marathon - Registrations and Results



1.3 System Description

A person makes an application by completing an application form and sending it, together with the fee, to The Organisers. The organisers check the form and the fee and, if both are correct, record the applicant's details. The applicants name, age, address, ... are recorded in the entries file.

A week before the race is due to start, each runner is sent their pack. A pack includes instructions on when and where to start, the runner's number to be pinned on the front and back of their vest, and a race-timing chip that is to be attached to the ankle.

On race day, the time race started is recorded, as is the time when the runner passes over the finishing line. We are dealing with race time here, rather than personal time. The personal time starts when the runner crosses the start line. It is usually after the race time start because it can take several minutes for the runner to reach the start line once the race has started. At the end of the race volunteers collect the race-timing chip from each competitor.

A runner's race time is recorded in the times file. A runner's race time is matched, by competitor (or runner) number, with the name of the runner from the entry file, to create the results file in time order. This file is used to print the results.

If you do not know how your chosen system actually works, and you cannot find out, make it up! You need to end up with a coherent, believable system description.

1.4 Scope

The project will not deal with

- fees or monies donated to charity
- runners personal times
- non-starters or non finishers
- marshals
- sponsors
- red cross workers
- suppliers of timing equipment
- permissions from the local and police authorities

But the project will deal with registering applicants, and recording their time on race day.