Computational modeling methods in bioinformatics

Practical issues

26th January 2006

Overview

- practical issues: registrations, fixing project topics
- overall view of the project work
- timetable of the project work
- reserving seminar presentation time slots
- what should you before the presentation?
- what should the project plan include?

Practical issues

I have still the email-address of some participants missing.

Everyone should have the following things clear about their project:

- topic
- article
- contact information of other members of your group
- contact information of your groups supervisor

Parts of the Project work

1. Each group selects (with the help of the lecturers) one state-of-the-art article as the basis of the project work.
2. Brief seminar presentation of the details of the model/algorithm and plans for implementing and testing it.
3. Submit a written plan of the project to your supervisor, who will give you feedback if necessary.
4. Carry out the plan and meet with the supervisor a few times during the project.
5. Submit a first version of the results of your project to your supervisor (at least slides) a week before the mini-conference.
6. Oral presentation of the results in a mini-conference.
7. Submit a brief written report and documentation of the codes.

Timetable of the course

2.2.	Opportunity to try out the Medicel Integrator.
9.2.,16.2 . & 23.2.	Seminar presentations, we will fix the times today.
March-April	Time to work on the project. Schedule 2-3 meetings with your supervisor.
11.5. (?)	return a fisrt version of your results to your supervisor (at least slides)
18.5. (?)	mini-conference where each group presents the results of their project
31.5.	Deadline for submitting the final version of the

Fixing times

- Following times are available for the seminar presentation. On 9.2., 16.2. and 23.2.
3 x (20 min. presenation + 10 min. discussion)

- The date for the mini-conference
thursday 18.5. 12-16 (or thursday 11.5. 12-16)

- Times to try Medicel Integrator will be discussed later.

The seminar presentation

Aim: Present your project for others to comment.

- During discussion you will get feedback from the other participants of the course. Based on the comments you can refine your project plan.

Other aims:

- present one interesting method from the field of bioinformatics
- learn how to give a scientific presentation

What should you do?

- Plan the project,
    - what are you going to implement?
    - what should the program be able to do?
    - how do you plan to test the program?
    - what experiments will you perform?
- Prepare the seminar presentation. The presentation should cover:
    - Brief introduction and (biological) background
    - The method/algorithm (emphasize this, and give enough detail)
    - very briefly the results in the article
    - very briefly the conclusions in the article
    - your plans for your project

What should the project plan cover?

- description of the algorithm/method to be implemented (e.g. seminar presentation slides)
- project description
  - what parts of the method are you going to implement?
  - how will the ready program work? Inputs, outputs?
  - what programming language and which tools are using to implement the method?
  - testing/debugging plan, i.e. how do you plan to verify that the program works correctly?
  - (preliminary plans on) what sub-programs and what kind of data structures will the program need
  - workload of each person (is it worth 7 cr?)

Project plan contents, continued...

- Project organization
  - what are the parts of the project
  - when will the parts be ready
  - who will do what?
  - who will be responsible for what (e.g. some part)?
  - how will everybody get the overall picture (do not assign too specialized jobs)
- Experiments
  - what kind of experiments will you do with the program?
  - will you duplicate the results of the article or use your own data?
  - are the experiments a part of your own research?

Getting feedback about the project plan

- First feedback at the seminar session

- The supervisor will give you feedback on the finished plan
  - what parts need adjustment?
  - the supervisor will act like a supervisor in a real research project.
    - he will point you in the right direction
    - you do the work