Exercises to
Introduction to Bioinformatics

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Overview

• There will be 6 assignments
  – Usually, you have two weeks per assignment

• We build teams of 2 students

• The general scheme looks like this
  – One week
    • 2-3 presentations of results of previous assignment
      – Groups that present results are drawn at random
      – This means: Every group needs to prepare a short, informal presentation for every assignment
    • Discussion of new assignment
      – Next week: Questions, ... lecturer available

• All data, slides etc. will be on the web
Assignments

- Assignments will consist of a mix of the following:
  - **Theoretical questions** (show, argue, prove, devise new method, explain ...)
  - **Practical implementation**
    - You need to be able to program small programs
    - Please use Java (though we actually don’t care)
    - One task will use R – there will be an introduction
  - Use of **existing Bioinformatics tools / databases**

- Submission by email to sjaeger[at]informatik.hu-berlin.de
Topics (might change)

- Substring search in large sequences
- Local alignment
- Hierarchical clustering
- Analysis of gene expression data
- Analysis of protein-protein-interaction networks
- Analysis of metabolic networks
Passing the Course

• **Being admitted to the exam**
  – Every group need to **pass all but one** assignment to be admitted to the exam
  – Students in the same groups pass or fail together
  – Every assignment consists of a number of tasks, each giving a number of points; to pass the assignment, you need to have **more than 50% of the points**
  – No grades

• **Examination**
  – Will be oral, app. 30 minutes
  – Dates etc. will be announced in June (?)
    • There will be some choice
  – Gives the grade
Let's Group Together

- Gruppe 1:
- Gruppe 2:
- Gruppe 3:
- Gruppe 4:
- Gruppe 5:
- Gruppe 6:
- Gruppe 7:

- Please build these groups in GOYA asap