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Preparing your scribe

1 General Instructions

Thank you for volunteering to write up notes on today's lecture. If you scribe on a Thursday we ask that you please bring your notes by the following Thursday. At this phase bring *printed* notes, do not send us files. That version will be marked for corrections by us and you should correct the files accordingly and have a final version ready by the following Thursday morning, so that it can be made available to the class within two weeks from the original lecture.

To help you with your notes, we will give access to the notes used in giving the lecture, and notes on the same subject in past courses. Please ask for help in understanding the material or if you have a question about how it should be presented.

In order to make the notes more uniform and easier to read, we are providing several macros for theorems and such. Also, we ask that you follow a few stylistic conventions:

Please write your notes as if you were explaining the material to another student, rather than as minutes of a meeting. That is, don't write things like "Today we started discussing..." or "next time, we will..." or "then, someone asked the question..." Just explain the material as clearly as you can.

If you need to refer to an earlier lecture, use the lecture number. For example, "In Lecture 6 it was shown that..." To refer to a later lecture for which you don't know the number, just say something like, "This impossibility result will be discussed further in a later lecture." (At the end of the course, I will go back and fill in the appropriate lecture numbers.)

If material from a handout is covered in the lecture, then we would like to include the text of the handout as a part of the notes to make them more self-contained. To make your job easier, we will mail you the latex files for the relevant handouts, and you can merge them in at the appropriate places. Also, you may want to annotate the handout as you see fit. The material presented in class may contain pictures which cannot be latex-ed, and in that case they should be scanned in order to be added to the the lecture notes. Contact us regarding usage of a scanner.

Your grade on the scribe will be based primarily on the **first** draft that you hand in. Subsequent changes will have only a secondary effect on the grade. Therefore, hand in what you consider *your final version*, and not a draft you expect us to clean up for you.

2 Working with latex

To generate your scribe file, you will start from an existing latex document. You will have to change the content (title,authors,text,figures,bibiliography) only, while the document structure (layout,style) will remain standard. Here's a quick walk-through guide:

1. If you are unfamiliar with LaTeX, check the web page at

   `http://www.cs.tau.ac.il/~rshamir/atga/help.html`

2. Create a sub-directory called ge in your home directory, and copy there all files in ∼rshamir/pub/ge/*. Also form links to the files in ∼rshamir/pub/ge/bib/.

3. Rename the file template.tex to `lec##.tex`. This will be your main text file. Rename the template.bib file to `lec##.bib`, this will contain you references.

4. Edit the template latex file, type in the lecture title, your name, all the text and figures (see below).

5. To transform your latex file into a pdf, you should run the following compilation sequence:
   pdflatex myfile
   bibtex myfile
   pdflatex myfile
   The pdflatex command produce a pdf and several auxilary files. Bibtex process your .bib file and the auxilary file so that the final pdflatex run can incorporate the bibioliography into your pdf. Note that bibtex should be run only if you have changed your references since its previous invocation. Make sure the final pdflatex run ended without warnings on missing references (bib items, figures or labels).

6. The resulting pdf file can be viewed via acroread and printed out, continue to change your scribe and rerun the compilation sequence until you are satisfied with the text.

3 Labels

All the labels you create in your tex file should be in the following format

```
\label{lec#:<type>:<name>}
```

where type is theorem, lemma, corollary, claim, fig, etc.
For example, `\label{lec1:thorem:PerfectGraphTheorem}` or
`\label{lec1:fig:interval_graph}`

4 Bibliography

For most algorithms, theorems and lemmas, you need to add a references to the papers they first appeared in. This should be done in the following way: Suppose you need a reference to the paper "Is P=NP ?" by Alice and Bob. First, check if it appears in the `.bib` files we supply (remember that you should have links to these files in your directory). If not, edit the file named lec#.bib, and there you create the following entry:

```
@Article{AliceBob99,
author = "A. Alice and B. Bob",
title =  "Is {P=NP} ?",
journal = "SIAM J. Computing",
year = "1999",
volume = "1",
pages = "1--50",
}
```

(the curly brackets are needed to keep the capitalization of the expression inside). Note that you should create the label for the entry by concatenating the names of the authors and the two last digit of the year (in this case AliceBob99). Now, in your tex file, you can add reference to this paper using the `\cite` command:

```
\begin{theorem}
(Alice and Bob, 1999 \cite{AliceBob99})
$P \ne NP$.
\end{theorem}
```

(use the exact style as above for giving references in theorems)

Every time you add references to your scribe and want to create a PDF file you should re-run the compilation sequence.

5 Figures

You can generate figures in any graphic software. Once generated you should convert the figures to the png format (using, for example, xv: save as), and name them as `lec##_fig1,2,3..` in a directory `cg/lec##_figs/`. The latex template has an example of how to incorporate the figure into the text.

6 Credit

In case your scribe was based in part on previous scribes, give credit to *all* previous scribers by adding a line similar to the following to your latex file:

```
\scribebase{Based in part on a scribe by Alice and Bob, Fall 2001}
```

7 Before handing in your Scribe:

You will hand in your final scribe both in print and in files. Below is a summary of instructions for the files conventions. For more on this convention reread the instructions in template.tex.

1. I will need your final latex file and ALL other related files you are using or including to make latex run.

   Do not change anything in style files. If you need to make definitions, put them in your text file.

   Please note your changes, so I'll be able to add them to the style files.

2. Make sure ALL of the files (scribe, figures) start with the prefix `lec##_` where ## is your two-digit lecture number.

3. Put your scribe in file `lec$#.tex` in your directory `~/ge/` and your figures in `~/ge/lec##_figs/lec##_fig#.png`

4. Clear `~/ge/` and `~/ge/lec##_figs` from all other files.
5. Spell check your scribe! The Unix command for spell checking is 'ispell'. You can also open your tex file in Word, spell check and save as text.
6. Make sure all the files are readable (type '`chmod -R 755 ~/ge`').
7. After all the above is done, run latex again on your file, to see that input file names are consistent with those inside the latex files and nothing is missing.
8. **READ your scribe**. Check that pages and lines do not break in bad places. Check for typos etc.
9. Make sure the references appear at the end of the document, and that all citations inside the text are correctly expanded.
10. when handing in the first iteration of the scribe, please:
    (a) Use doublespace style.
    (b) Give the TA a printout of the scribe.
11. when handing in the second and third iterations, please:
    (a) Hand in a printout of the new version
    (b) Hand in also the previous (marked) iteration, with all remarks either marked "check " (V, with a pen), or with a comment why you didn't correct them.
    (c) Send the TA an e-mail with the tar-ed ge directory attached.