Based on
Mastering Networks - An Internet Lab Manual
by Jörg Liebeherr and Magda Al Zarki

Adapted for
'Labo Computernetwerken'
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Course Evaluation

This course will be evaluated based on the lab reports that you will need to complete and send in before the given deadlines. For Lab 5 and Lab 7 you are expected to give a demonstration of the network setups described in the labs (see the relevant chapters for details). Each demo will consist of a short walkthrough of the network built, followed by some questions regarding the lab itself. You should be able to answer all questions for the demo if you finished following the instructions in the lab book.

Please send an e-mail to johan.bergs@uantwerpen.be to make an appointment for when you expect to finish the lab setup (date and approx. hour). It is NOT necessary to first finish the lab report before doing the demo. You will probably do a better job with the lab experiments still fresh in mind. You will also save yourselves some time by not having to rebuild the entire lab setup at a later time, leaving more room for other groups.

Lab Reports

This course expects you to write your lab report using LaTeX. To make things easier you will be provided with a template for each lab which already contains the questions you need to fill in. The idea is that you make a `.tex` file for each of the questions you need to answer in the solutions folder. You are supposed to send in a compiled PDF file, the `.tex` solution files and your traces.

Download the lab report templates from Blackboard, which will be called `lab1.tar.gz`, `lab2.tar.gz`, etc. Unpack `lab1.tar.gz` and you will see the following structure:

- `labo.tex`: compile this file with LaTeX to create `labo.pdf`
- `prelabX.tex`: contains all the questions of the prelab.
- `labX.tex`: contains all the questions of the lab.
- `header.tex`: leave this unchanged.
- `groupid.tex`: edit this file so that it contains your names.
- `solution`: a folder for your solutions; it contains `labX` and `prelabX` folders.
- `traces`: a folder for your lab traces, make sure to identify traces with the relevant questions.

Try to compile the `labo.tex` file with:

```
> pdflatex labo.tex
```

You will notice an error message like this:

```
! LaTeX Error: File ‘solutions/prelab1/1.tex’ not found.
```

This tells you that you did not yet provide an answer for question 1 of the prelab. Now create a file with the exact same name, i.e. `solutions/prelab1/1.tex`. Then fill in the answer and compile again. You will get the next question back. The question numbers match those in the question sheets that are also available on blackboard.

To include test files you can use the `lstlisting` environment.

```
\begin{lstlisting}
place your trace data here.
\end{lstlisting}
```

Which will end up looking something like this:

```
[root@host1 /root]# ping -c 1 -b 10.0.1.255

WARNING: pinging broadcast address
PING 10.0.1.255 (10.0.1.255) from 10.0.1.11 56(84) bytes of data.
64 bytes from 10.0.1.11: icmp_seq=1 ttl=644 time=15.464 ms
--- 10.0.1.255 ping statistics ---
1 packets transmitted, 1 packets received, 0% packet loss rtt min/avg/max/mdev =
    15.464/15.464/15.464/0.000 ms
```

To include a text file that contains this output you can use the input command

```
\lstinputlisting{ping.out}
```

Which would result in the same output as above.

```
[root@host1 /root]# ping -c 1 -b 10.0.1.255

WARNING: pinging broadcast address
PING 10.0.1.255 (10.0.1.255) from 10.0.1.11 56(84) bytes of data.
64 bytes from 10.0.1.11: icmp_seq=1 ttl=644 time=15.464 ms
--- 10.0.1.255 ping statistics ---
1 packets transmitted, 1 packets received, 0% packet loss rtt min/avg/max/mdev =
    15.464/15.464/15.464/0.000 ms
```

when you encounter a LaTeXerror that you can't work around use the verbatim environment.

```
\begin{verbatim}

\end{verbatim}
```

When using the `verbatim` environment, make sure that you manually use newlines, as LaTeXwill not automatically wrap lines.

Installing LaTeX

Having issues installing LaTeX on your own laptop? Go to http://www.latex-project.org/ftp.html for help.

On Linux you can use Gedit with its LaTeX plugin or TeXWorks for GNOME and Kile for KDE among lots of other options. On Windows you can check out the TeXniccenter editor. On OS X you have TeXShop.