# Lab 3. Git, Source Code and Regular Expressions

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## I. Git in VE482



# II. Working with source code

1. The rsync command
   - In Minix 3 install the rsync software
     pkgin install rsync

   - Install rsync on you Linux system
     sudo apt-get install rsync

   - Read rsync manpage
     man rsync

   - Copy the file in /usr/src into the directory /usr/src_orig
     rsync -az /usr/src /usr/src_orig

   - Copy /usr/src_orig in Minix to Linux using ssh and rsync
     rsync -az minix:/usr/src_orig /usr/src_orig

2. The diff and patch commands
   - Read the manpages of diff and patch
     man diff
     man patch

   - Using the diff command, create a patch corresponding to your changes in homework 2
     diff -uNr /usr/src_orig /usr/src >src.patch

   - Retrieve your patch on your Linux system
     resync -az minix:/src.patch /usr

   - Apply your patch to the copy of /usr/src_orig on your Linux system
     patch -p0 <src.patch

   - Revert the patch
     patch -R -p0 <src.patch

# III. Scripting and regular expressions

- Using curl or wget to retrieve information on shanghai air quality and pipe it to sed
  curl
  “http://aqicn.org/?city=Shanghai&widgetscript&size=large&id=52b39d71decf07.20261781” | sed 's/\(.*\)>\([0-9][0-9]\)<\(.*\)>\([0-9][0-9]\)<\(.*\)/AQI: \2 Temp: \4 ºC/g'

- Pipelining the output of ifconfig to awk return only the ip address of your current active network connection

```
ifconfig | awk '/inet addr/ {gsub("addr:", "", $2); print $2}'| head -n1
```