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ME 556

Linux Tutorial

1. Super computing account approved and connected to the course
2. I can run Linux terminal commands through putty on my own machine
3. Intro, 1, 2, 5, 6, 7 (see attached output for section 7 of tutorial)
4. Successfully cloned class repository

Linux tutorial section 7

```
-bash-4.2$ ls
Classes Desktop Documents Downloads Maildir Music My Documents New
folder Pictures Public Templates Users Videos groups unixstuff www
-bash-4.2$ cd Downloads
-bash-4.2$ ls
-bash-4.2$ ls -l
total 0
-bash-4.2$ ls -l
total 176
-rwxrwx--- 1 ryanm55 ryanm55 178224 Jan  5 10:16 units-1.74.tar.gz
-bash-4.2$ gunzip units-1.74.tar.gz
-bash-4.2$ tar -xvf units-1.74.tar
units-1.74/
units-1.74/README
units-1.74/ChangeLog
units-1.74/units.info
units-1.74/units.doc
units-1.74/getopt1.c
units-1.74/units.dvi
units-1.74/Makefile.in
units-1.74/units.c
units-1.74/getopt.c
units-1.74/getopt.h
units-1.74/units.dat
units-1.74/units.man
units-1.74/units.texinfo
units-1.74/configure.in
units-1.74/configure
units-1.74/strfunc.c
units-1.74/COPYING
units-1.74/Makefile.dos
units-1.74/install-sh
units-1.74/mkinstalldirs
units-1.74/NEWS
units-1.74/ansi2knr.1
units-1.74/ansi2knr.c
units-1.74/aclocal.m4
units-1.74/texi2man
units-1.74/INSTALL
units-1.74/parse.tab.c
units-1.74/parse.y
units-1.74/units.h
-bash-4.2$ ls -l
total 624
drwxr-xr-x 2 ryanm55 ryanm55  4096 Aug  1 2000 units-1.74
-rwxrwx--- 1 ryanm55 ryanm55 634880 Jan  5 10:16 units-1.74.tar
-bash-4.2$ cd units-1.74
-bash-4.2$ ls
COPYING      INSTALL      Makefile.in  README      ansi2knr.1  configure
getopt.c     getopt1.c   mkinstalldirs parse.y     texi2man    units.dat
units.dvi    units.info  units.texinfo
```

Linux tutorial section 7

```
ChangeLog  Makefile.dos  NEWS          aclocal.m4  ansi2knr.c  configure.in
getopt.h  install-sh  parse.tab.c      strfunc.c  units.c      units.doc  units.h
units.man
-bash-4.2$ mkdir ~/units174
-bash-4.2$ ./configure --prefix=$HOME/units174
creating cache ./config.cache
checking for gcc... gcc
checking whether the C compiler (gcc ) works... yes
checking whether the C compiler (gcc ) is a cross-compiler... no
checking whether we are using GNU C... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ANSI C...
checking how to run the C preprocessor... gcc -E
checking for function prototypes... yes
checking for working const... yes
checking for a BSD compatible install... /usr/bin/install -c
checking for tparm in -lncurses... no
checking for tgetent in -ltermcap... no
checking for readline in -lreadline... no
checking for string.h... yes
checking for stdlib.h... yes
checking for strchr... yes
checking for strspn... yes
checking for strtok... yes
updating cache ./config.cache
creating ./config.status
creating Makefile
-bash-4.2$ make
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
units.c
units.c:2329:5: warning: missing terminating " character [enabled by default]
    "sed 's/./& ft\"
    ^
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
parse.tab.c
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
getopt.c
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
getopt1.c
gcc -o units.o parse.tab.o getopt.o getopt1.o -lm
sed s!@DATAFILE@!/fsd/ryanm55/units174/share/units.dat! ./units.man > units.1
-bash-4.2$ make check
Checking units
Units seems to work
-bash-4.2$ make install
./mkinstalldirs /fsd/ryanm55/units174/man/man1
mkdir /fsd/ryanm55/units174/man
mkdir /fsd/ryanm55/units174/man/man1
/usr/bin/install -c -m 644 units.1 /fsd/ryanm55/units174/man/man1/`echo
units|sed 's,x,x,'`.1
./mkinstalldirs /fsd/ryanm55/units174/info
mkdir /fsd/ryanm55/units174/info
if test -f units.info; then d=.; \
```

Linux tutorial section 7

```
    else d=.; fi; \
/usr/bin/install -c -m 644 $d/units.info
/fsd/ryanm55/units174/info/units.info; \
# Run install-info only if it exists.
if test -f /fsd/ryanm55/units174/info/dir; then \
    if /bin/sh -c 'install-info --version' \
        >/dev/null 2>&1; then \
        install-info --dir-file=/fsd/ryanm55/units174/info/dir \
            /fsd/ryanm55/units174/info/units.info; \
    else true; fi \
else true; fi
./mkinstalldirs /fsd/ryanm55/units174/bin /fsd/ryanm55/units174/share/
mkdir /fsd/ryanm55/units174/bin
mkdir /fsd/ryanm55/units174/share
/usr/bin/install -c units /fsd/ryanm55/units174/bin/`echo units|sed 's,x,x, '`
/usr/bin/install -c -m 644 ./units.dat /fsd/ryanm55/units174/share/units.dat
-bash-4.2$ cd ~/units174
-bash-4.2$ ls
bin  info  man  share
-bash-4.2$ cd bin
-bash-4.2$ ls
units
-bash-4.2$ ./units
1948 units, 71 prefixes, 28 functions
```

```
You have: You have: 6 feet
Unknown unit 'You'
You have: 6 feet
You want: metres
          * 1.8288
          / 0.54680665
You have: info --file=units.info
          ^
```

```
Parse error
You have: cd ~/units174/bin
          ^
```

```
Parse error
You have: exit
Unknown unit 'exit'
You have: -bash-4.2$ ls
Classes Desktop Documents Downloads Maildir Music My Documents New
folder Pictures Public Templates Users Videos groups unixstuff www
-bash-4.2$ cd Downloads
-bash-4.2$ ls
Unknown unit 'bash'
You have: Unknown unit 'Classes'
You have: Unknown unit 'bash'
You have: Unknown unit 'bash'
You have: -bash-4.2$ ls -l
total 0
-bash-4.2$ ls -l
total 176
-rwxrwx--- 1 ryanm55 ryanm55 178224 Jan  5 10:16 units-1.74.tar.gz
```

Linux tutorial section 7

```
-bash-4.2$ gunzip units-1.74.tar.gz
-bash-4.2$ tar -xvf units-1.74.tar
units-1.74/
Unknown unit 'bash'
You have: Unknown unit 'total'
You have: Unknown unit 'bash'
You have: Unknown unit 'total'
You have:
^
Parse error
You have: Unknown unit 'bash'
You have: Unknown unit 'bash'
You have:
^
Parse error
You have: units-1.74/README
units-1.74/ChangeLog
Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/units.info
units-1.74/units.doc
units-1.74/getopt1.c
units-1.74/units.dvi
Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/Makefile.in
units-1.74/units.c
Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/getopt.c
Unknown unit 'units'
You have: units-1.74/getopt.h
Unknown unit 'units'
You have: units-1.74/units.dat
units-1.74/units.man
Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/units.texinfo
units-1.74/configure.in
units-1.74/configure
Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/strfunc.c
units-1.74/COPYING
Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/Makefile.dos
units-1.74/install-sh
Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/mkinstalldirs
units-1.74/NEWS
```

Linux tutorial section 7

```
Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/ansi2knr.1
units-1.74/ansi2knr.c
units-1.74/aclocal.m4
units-1.74/texi2man
units-1.74/INSTALL
units-1.74/parse.tab.c
Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: Unknown unit 'units'
You have: units-1.74/parse.y
units-1.74/units.h
Unknown unit 'units'
You have: Unknown unit 'units'
You have: -bash-4.2$ ls -l
total 624
drwxr-xr-x 2 ryanm55 ryanm55  4096 Aug  1  2000 units-1.74
Unknown unit 'bash'
You have: Unknown unit 'total'
You have: Unknown unit 'drwxr'
You have: -rwxrwx--- 1 ryanm55 ryanm55 634880 Jan  5 10:16 units-1.74.tar
-bash-4.2$ cd units-1.74
      ^

Parse error
You have: Unknown unit 'bash'
You have: -bash-4.2$ ls
COPYING      INSTALL      Makefile.in  README      ansi2knr.1  configure
getopt.c     getopt1.c   mkinstalldirs parse.y     texi2man    units.dat
units.dvi    units.info  units.texinfo
ChangeLog    Makefile.dos NEWS          aclocal.m4  ansi2knr.c  configure.in
getopt.h     install-sh  parse.tab.c   strfunc.c   units.c     units.doc   units.h
units.man
-bash-4.2$ mkdir ~/units174
Unknown unit 'bash'
You have: Unknown unit 'COPYING'
You have: Unknown unit 'ChangeLog'
You have:
      ^

Parse error
You have: -bash-4.2$ ./configure --prefix=$HOME/units174
creating cache ./config.cache
checking for gcc... gcc
checking whether the C compiler (gcc ) works... yes
checking whether the C compiler (gcc ) is a cross-compiler... no
      ^

Parse error
You have: Unknown unit 'creating'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
```

Linux tutorial section 7

```
You have: checking whether we are using GNU C... yes
checking whether gcc accepts -g... yes
Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: checking for gcc option to accept ANSI C...
checking how to run the C preprocessor... gcc -E
Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: checking for function prototypes... yes
checking for working const... yes
checking for a BSD compatible install... /usr/bin/install -c
checking for tparm in -lncurses... no
checking for tgetent in -ltermcap... no
checking for readline in -lreadline... no
Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: checking for string.h... yes
checking for stdlib.h... yes
checking for strchr... yes
checking for strspn... yes
checking for strtok... yes
updating cache ./config.cache
creating ./config.status
creating Makefile
-bash-4.2$ make
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
units.c
units.c:2329:5: warning: missing terminating " character [enabled by default]
    "sed 's/./& ft\"
Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'checking'
You have: Unknown unit 'updating'
You have: Unknown unit 'creating'
You have: Unknown unit 'creating'
You have: Unknown unit 'bash'
You have: Unknown unit 'gcc'
You have: Unknown unit 'units.c:2329:5:'
You have:
Parse error
You have:
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
parse.tab.c
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
getopt.c
gcc -DUNITSFILE=\"/fsd/ryanm55/units174/share/units.dat\" -g -O2 -I. -c
getopt1.c
```

Linux tutorial section 7

```
gcc -o units units.o parse.tab.o getopt.o getopt1.o -lm
sed s!@DATAFILE@!/fsd/ryanm55/units174/share/units.dat! ./units.man > units.1
^
Parse error
You have: Unknown unit 'gcc'
You have: Unknown unit 'gcc'
You have: Unknown unit 'gcc'
You have: Unknown unit 'gcc'
You have: Unknown unit 'sed'
You have: -bash-4.2$ make check
Checking units
Units seems to work
-bash-4.2$ make install
./mkinstalldirs /fsd/ryanm55/units174/man/man1
mkdir /fsd/ryanm55/units174/man
Unknown unit 'bash'
You have: Unknown unit 'Checking'
You have: Unknown unit 'Units'
You have: Unknown unit 'bash'
You have: Unknown unit '.'
You have: Unknown unit 'mkdir'
You have: mkdir /fsd/ryanm55/units174/man/man1
/usr/bin/install -c -m 644 units.1 /fsd/ryanm55/units174/man/man1`echo
units|sed 's,x,x,`.`.1
./mkinstalldirs /fsd/ryanm55/units174/info
mkdir /fsd/ryanm55/units174/info
Unknown unit 'mkdir'
You have: ^
Parse error
You have: Unknown unit '.'
You have: Unknown unit 'mkdir'
You have: if test -f units.info; then d=.; \
    else d=.; fi; \
/usr/bin/install -c -m 644 $d/units.info
/fsd/ryanm55/units174/info/units.info; \
# Run install-info only if it exists.
if test -f /fsd/ryanm55/units174/info/dir; then \
    if /bin/sh -c 'install-info --version' \
        >/dev/null 2>&1; then \
        install-info --dir-file=/fsd/ryanm55/units174/info/dir \
Unknown unit 'if'
You have: /fsd/ryanm55/units174/info/units.info; \
    else true; fi \
else true; fi
./mkinstalldirs /fsd/ryanm55/units174/bin /fsd/ryanm55/units174/share/
^
Parse error
You have:
^
Parse error
You have: mkdir /fsd/ryanm55/units174/bin
mkdir /fsd/ryanm55/units174/share
```


Linux tutorial section 7

```
Unknown unit 'mkdir'
You have: Unknown unit 'mkdir'
You have: /usr/bin/install -c units /fsd/ryanm55/units174/bin/`echo units|sed
's,x,x,'`
/usr/bin/install -c -m 644 ./units.dat /fsd/ryanm55/units174/share/units.dat
-bash-4.2$ cd ~/units174
-bash-4.2$ ls
^
Parse error
You have: ^
Parse error
You have: ^
Parse error
You have: Unknown unit 'bash'
You have: bin info man share
-bash-4.2$ cd bin
Unknown unit 'bin'
You have: Unknown unit 'bash'
You have: -bash-4.2$ ls
units
Unknown unit 'bash'
You have: Unknown unit 'units'
You have: -bash-4.2$ ./units
1948 units, 71 prefixes, 28 functions
Unknown unit 'bash'
You have: Unknown unit 'units,'
You have:
You have: You have: You have: 6 feet
Unknown unit 'You'
Unknown unit 'You'
You have: Unknown unit 'Unknown'
You have: You have: 6 feet
You want: metres
      * 1.8288
      / 0.54680665
-bash-4.2$ ls
Classes Desktop Documents Downloads Maildir Music My Documents New
folder Pictures Public Templates Users Videos groups units174
unixstuff www
-bash-4.2$ cd units174
-bash-4.2$ ls
bin info man share
-bash-4.2$ cd bin
-bash-4.2$ ls -l
total 132
-rwxr-xr-x 1 ryanm55 ryanm55 131216 Jan  5 10:27 units
-bash-4.2$ file units
units: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically
linked (uses shared libs), for GNU/Linux 2.6.32,
BuildID[sha1]=b361d062596c07569c72d5bbbc470794e6ced7df, not stripped
-bash-4.2$ strip units
-bash-4.2$ ls -l
total 40
```

Linux tutorial section 7

```
-rwxr-xr-x 1 ryanm55 ryanm55 40464 Jan  5 10:38 units
-bash-4.2$ file units
units: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically
linked (uses shared libs), for GNU/Linux 2.6.32,
BuildID[sha1]=b361d062596c07569c72d5bbbc470794e6ced7df, stripped
-bash-4.2$
```