IPK 1st project assignment – 10 points

Create C/C++ program for UNIX operating system using BSD sockets (located at eva.fit.vutbr.cz or merlin.fit.vutbr.cz) which will download specified object (page, picture, generally any file) from WWW server.
- Final program should be compiled into filename called **download.**
- Create **makefile** which can be used for automatic compilation of source file(s) by typing make statement in UNIX shell.
- Downloaded file will have name as presented in URL or index.html for default index page.

Synopsis:
    download URL

Tested examples:
    ./download http://www.fit.vutbr.cz
    ./download www.fit.vutbr.cz
    ./download http://www.fit.vutbr.cz/index.html
    ./download http://www.fit.vutbr.cz/common/img/fit_logo_cz.gif
    ./download http://www.fit.vutbr.cz:80/common/img/fit_logo_cz.gif

IPK 2nd project assignment – 20 points

Create in C/C++ client and server application for UNIX operating system using BSD sockets (located at eva.fit.vutbr.cz or merlin.fit.vutbr.cz) which will provide directory service (small LDAP) .
- Final programs should be compiled into filename called **client** and **server.**
- Create **makefile** which can be used for automatic compilation of source files by typing make statement in UNIX shell.
- All errors should be printed on stderr.
- Directory database will be presented as text file (CSV format) with following syntax:
- "id,login,surname,firstname,faculty" . Each entry (line) is terminated by \n character.

Example of database:
1,xadamc00,Adamcik,Lukas,FIT
2,xamler00,Amlerova,Lucie,FEKT
3,xangel00,Angelov,Michael,FIT

Server program:
- has at least 1 mandatory parameter –p followed by port number port number to bind server process.

Client program:
- should support following parameters:
- -h following by hostname where server is located (mandatory)
- -p port number on which server will be contacted (mandatory)

- -s followed by surname (search condition)
- -n followed by first name (search condition)
- -l followed by login (search condition)
- -f followed by faculty (search condition)
- -S print surname
- -L print login
- -N print first name
- -F print faculty

Synopsis:

client -h hostname -p port [-NSLF] [-n name] [-s surname] [-l login] [-f faculty]

server –p port

Examples:

./client -h eva.fit.vutbr.cz -p 10000 -NSF -l xrabja00

- prints out first name, surname, faculty of the person, who have login name xrabja00

./client -h eva.fit.vutbr.cz -p 10000 -SNF -l xrabja00

- prints out surname, first name, faculty of the person, who have login name xrabja00