B4 - Unix System Programming

B-PSU-400

nm / objdump

ELF exploration

2.2

nm / objdump

binary name:	my_nm & my_objdump
group size:	1
repository name:	PSU_$ACADEMICYEAR_nmobjdump
repository rights:	ramassage-tek
language:	C
compilation:	via Makefile, including re, clean and fclean rules

- Your repository must contain the totality of your source files, but no useless files (binary, temp files, obj files,...).
- All the bonus files (including a potential specific Makefile) should be in a directory named *bonus*.
- Error messages have to be written on the error output, and the program should then exit with the 84 error code (0 if there is no error).

Your Makefile must contain:
- an `nm` rule in order to compile your nm project,
- an `objdump` rule in order to compile your objdump project,
- an `all` rule in order to call both rules.

The goal of this project is to code a **my_nm** program with the exact same beahaviour as the `nm` system command, and an **my_objdump** program with the exact same behaviour as the `objdump -f -s` system command'.
You must handle a variable number of parameters.
The display produced MUST be the same as the one on your dump.

This project requires you to do research on the ELF format.
Feel free to spend some time on it.

The programs must work with the following:

- relocatable files **.o** & **.a**
- shared files **.so**
- executable files

The `exec...` functions family form the libc is forbidden.

Other options *might* be considered as bonus points.
The *nm* and *objdump* manuals explain, in detail, how these commands work.

Some options, deemed too easy or pointless, may be ignored.

It is strongly recommended to try these functions out in order to understand how they work.