BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI (RAJASTHAN) – 333 031
ISC462/IS F462 Network Programming
I semester 2014-15
Lab1 - ASSIGNMENT

You have learned about the different ways to compile, for debugging and for profiling.

a. Write a C program which has at least 3 files. One **main.c** (having the code for the main function), one **function.c** (having the helper functions), and one header file for the functions, **function.h**.

b. Create a makefile (for the above program) which has the following targets. The targets can achieve the described tasks using multiple dependency targets.

   1. *build:* The default (first) target. It should compile all the c files into object files first, and then compile into a single executable called program.
   2. *debug-build*: Compiles the above using support for debugging using gdb.
   3. *profile-build:* Compiles the above using support for profiling using gprof.
   4. *run:* Executes the standard (non-debug/profile) executable.
   5. *profile:* Runs the code and then profiles it using gprof (using non-verbose output, with both flat profile & call graph). It places the output of gprof in a file program_profile.txt

   NOTE: Take care of the dependency of run & profile on build & profile-build.

   6. *clean:* Cleans everything except the source.

Submit <fullidno>_makefile file latest by 9 AM on 12th August to haribabu.bits@gmail.com with the subject: NP141-lab1-exercise. Please make sure mail subject is exactly what is mentioned here.

========Sample files=============

/*main.c*/

#include<function.h>

main(){

printf("Calling function f1()... Result: %d", f1());

}

/*function.c*/

int f1(){

return 5*2;

}

/*function.h*/

extern int f1(void);