Writing a Kernel Module

This program implements a linux system call as a module which can be loaded and unloaded from the kernel. A process name is taken as a command line input from the user and entries of the task struct i.e. PID, PGID, UID & command path are given as output.

The program uses a struct task_struct to access all process attributes. The process name taken as input is compared with all processes in the task struct and process entries as printed in the kernel using printk().
Every kernel module contains init_module() & cleanup_module() which are run while the program is executed.

The makefile compiles the module in the kernel and a kernel object file is created which is ready to be loaded into the kernel.

How to run the program?

- Compile the program using make command and a makefile.
- Load the kernel object file into the kernel by entering the following command:
  insmod Q3.ko process_name=" "
- Check the information printed in the kernel logs as printk() doesn't output in the terminal.
- Remove the module after execution and run make clean using the following command
  rmmod Q3
  make clean