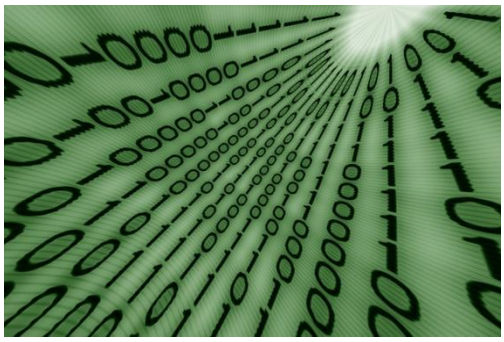
Operating Systems



Lab #6

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The purpose of this list is to create basic Kernel Module under Linux OS.

Read attached article about Kernel Modules – file "**Kernel Modules pp.pdf**". SID stands for your student ID number.

Task #1

What are **pros and cons** between **monolithic kernel** and **micro-kernel**? Which of them communicates faster with peripherals?

Task #2

Display the **list of all currently loaded kernel modules**.

Task #3

Display the **more detailed information about one exemplary** kernel module.

Task #4

Kernel logs are messages logged by the kernel. Display:

a) all kernel logs,

b) last 5 kernel logs.

Task #5

Write your own kernel module. Name it „studentSIDmod". As author of the module write your name and surname. As module description write „Basic kernel module by student SID". In your code use two methods:

a) student_SID_init that will log to the kernel „Registering studentSID module"

b) student_SID_exit that will log to the kernel „Cleaning up studentSID module".

Load and unload the module.

Task #6

What is the difference between **printk** and **printf** functions? What **1** in **printk(1 „Message")** stands for?