

College of Engineering, Pune
Dept of Computer Engineering and Information Technology
Year (Final B.Tech)
Advanced Unix Programming (AUP)
Lab 9

Write a program to implement the following:

- 1. Catch the SIGTERM signal, ignore SIGINT and accept the default action for SIGSEGV. Later let the program be suspended until it is interrupted by a signal. Implement using signal and sigaction**
- 2. Create a child process. Let the parent sleeps of 5 seconds and exits. Can the child send SIGINT to its parent if exists and kill it? Verify with a sample program.**
- 3. Implement sleep using signal function which takes care of the following:**
 - If the caller has already an alarm set, that alarm is not erased by the call to alarm inside sleep implementation.**
 - If sleep modifies the current disposition of SIGALRM, restore it.**
 - Avoid race condition between first call to alarm and pause inside sleep implementation using setjmp.**

Test the implementation of sleep by invoking it in various situations.

- 4. “Child inherit parent’s signal mask when it is created, but pending signals for the parent process are not passed on”. Write appropriate program and test with suitable inputs to verify this.**