

Sistemi Operativi

09.09.2010

1. Write the solution of the Readers & Writers problem (Readers precedence) by means of semaphores. Comment the key instructions, and illustrate what happens when a Writer ends writing and there are both Readers and Writers waiting for the use of their critical section.
2. Write the **exec** instruction which allows to **echo** on the screen the content of a C program variable defined as **int j;**
3. Describe the difference between interrupts, traps and signals, and how are they managed.
4. Implement a **bash** script that takes a text input file and prints each line of the file preceded by the number of words in the line.
5. Implement a **bash** script that finds in the sub-tree given as an argument the files that have a line including a number at its beginning.
6. Implement a **bash** script that takes as an argument a file and prints each line by deleting the word with index corresponding to the line number (the first word for the first line, the second word for the second line, etc.)