

REPORT :

In the c-program time.c we determine the amount of time taken to run a command from the command line. For this we use the command fork(). This forks the child process. This child process will execute the command through a function called execvp(). Before the child executes the command we record the current time stamp .The parent Process waits till the child process gets terminated since used wait(). Once the child process erminates the parent process recorrd the time stamp again and prints the difference as Elapsed time. For this we use a mechanism for the program to share variables using shared memory. We use a function called gettimeofday() to record the current time stamp. For Inter process communication between the parent process and the child process ,the contents of the shared memory pointer are assigned the struct timeval representing the starting time. The output is the diffence of the time stamps and is in milliseconds.

Control flow for the program :

gcc time.c -o p -lm -lrt ⇒ ⇒ ./p ls ⇒ ⇒ parent process is created ⇒ ⇒ child process is forked

⇒ ⇒ time stamp is recorded ⇒ ⇒ command is run using execvp ⇒ ⇒ child process is terminated

⇒ ⇒ parent process records the time stamp ⇒ ⇒ prints the difference of time stams ⇒ ⇒ program

terminates.