

Real Time Systems, January 2024

Synchronizing termination of processes and using the status reported by a child process at the time of termination

Opened: Monday, 22 January 2024, 9:00 AM
Due: Friday, 2 February 2024, 11:59 PM



Unlike the other assignments, the submission-deadline for this assignment is midnight of coming Saturday.

In the previous assignment you have written a C program which when executed as `./a.out executable1 executable2 ... executableN` creates **N** additional child processes where the 1st child process executes the 1st executable file (given by **executable1**). 2nd executes the 2nd executable file (given by **executable2**) and so on.

In this assignment write a program so that the parent process waits for completion of its child processes and uses the status with which the child processes terminated.

The parent process read 2 matrices A (size $m \times n$) and B (size $n \times r$) and creates $m \times r$ child processes such that each child process will compute one element of the product matrix $A \times B$ (size $m \times r$) and communicates that element as status to the parent process. The parent process finally prints the product matrix ($A \times B$)!

Submission status

Attempt number	This is attempt 1.
Submission status	Submitted for grading
Grading status	Not graded
Time remaining	Assignment was submitted 2 days 22 hours early
Last modified	Wednesday, 31 January 2024, 1:24 AM
Online text	<div><div><div>+</div><div>(412 words)</div></div><div><pre>#include <stdio.h> #include <stdlib.h> #include <unistd.h> #include <sys/wait.h> #include <time.h> #include <sys/types.h> #include <sys/ipc.h> #...</pre></div></div>

File submissions

 [program8.c](#)

31 January 2024, 1:23 AM

Submission comments

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◀ [Synchronizing termination of processes](#)

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