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Program using system calls: fork(),getpid(),wait(),sleep()

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#include <stdio.h>

#include <string.h>

#include <sys/types.h>

void main()

{

int pid,n,i=0,j=1,s,k;

printf("\n Enter the value of n : ");

scanf("%d",&n);

pid=fork();

if(pid == -1)

printf("Error in creating process");

else if(pid == 0)

{printf("executing in child process, pid=%d and its parent pid = %d\n ",getpid(),getppid());

printf("\n\tFIBONACCI SERIES");

if(n==0)

{printf("\n No elements in fibonacci series !!");}

else if (n==1)

{printf("\n 0\n");}

else if (n==2)

{printf("\n 0 1\n");}else

{printf("\n 0 1");

k=2;

while(k<n)

{s=i+j;i=j;j=s;

printf(" %d",s); k++;}

printf("\n");}}

else

{wait(10000);

printf("Executing in parent process,pid=%d and its parent pid = %d\n ",getpid(),getppid());

printf("\n\tFACTORIAL OF %d = ",n);

if(n==0){printf("%d\n",1);}

else

{k=1;i=1;

while(i<=n)

{ k\*=i;i++;}

printf("%d\n",k);} sleep(100);} }

**OUTPUT**

student@user:~/Anand$ gcc fork.c

student@user:~/Anand$ ./a.out

Enter the value of n : 5

executing in child process, pid=4279 and its parent pid = 4278

FIBONACCI SERIES

0 1 1 2 3

Executing in parent process,pid=4278 and its parent pid = 4192

FACTORIAL OF 5 = 120