Tarea 2

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Clave de la Materia: 2946

Nombre de la Materia: Arquitectura Cliente Servidor

Semestre: 2021-1

Ejercicio 1 fork exec

El proceso padre es quién devuelve la frase "**done with the Program**", que en este caso sería main

```c
//Librerias necesarias para el funcionamiento del codigo
#include <stdio.h>
#include <stdlib.h>
#include <sys/types.h>
#include <unistd.h>
// Se define una funcion hija, la cual recibe como argumentos, los parametros que se le den
// en la consola
int spawn (char* program, char** arg_list) {
  //proceos
  pid_t child_pid;
  child_pid = fork ();
  // si el proceso no logra crear el proceso hijo creado, este simplemente
retornara el pid
  if (child_pid != 0)
    return child_pid;
  //En una segunda corrida con el proceso creado, se ejecuta como argumento la
lista de argumentos
  //definida anterioremnte en el main, por lo que se ejecuta "ls -l /"
  else {
    execvp (program, arg_list);
    fprintf (stderr, "an error occurred in execvp\n");
    abort ();
  }
}
/// Proceso Padre ejecuta "done With main Program"
int main () {
  char* arg_list[] = { "ls", "-l","/", NULL };
```

```
    spawn ("ls", arg_list);
    printf ("done with main program\n");
    return 0;
}
```

```
done with main program
galigaribaldi@MacBook-Pro-de-Hernan Tarea2 % total 9
drwxrwxr-x+ 46 root   admin   1472 Oct 15 01:29 Applications
drwxr-xr-x  67 root   wheel   2144 Oct 11 19:53 Library
drwxr-xr-x@  8 root   wheel    256 Jan 23  2020 System
drwxr-xr-x   5 root   admin    160 Jan 23  2020 Users
drwxr-xr-x   3 root   wheel     96 Oct 18 17:52 Volumes
drwxr-xr-x@ 38 root   wheel   1216 Oct 11 19:51 bin
drwxr-xr-x   2 root   wheel     64 Dec 13  2019 cores
dr-xr-xr-x   3 root   wheel   4434 Oct 15 11:18 dev
lrwxr-xr-x@  1 root   admin     11 Jan 23  2020 etc -> private/etc
lrwxr-xr-x   1 root   wheel     25 Oct 15 11:18 home -> /System/Volumes/Data/home
drwxr-xr-x   2 root   wheel     64 Dec 13  2019 opt
drwxr-xr-x   6 root   wheel    192 Oct 11 19:52 private
drwxr-xr-x@ 63 root   wheel   2016 Oct 11 19:51 sbin
lrwxr-xr-x@  1 root   admin     11 Jan 23  2020 tmp -> private/tmp
drwxr-xr-x@ 11 root   wheel    352 Jan 23  2020 usr
lrwxr-xr-x@  1 root   admin     11 Jan 23  2020 var -> private/var
[./exec                                                                       ]
done with main program
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galigaribaldi@MacBook-Pro-de-Hernan Tarea2 % ▏
```

```
                            📁 Tarea2 — -zsh — 91×57

Last login: Sun Oct 18 19:47:25 on ttys001
[galigaribaldi@MacBook-Pro-de-Hernan ~ % cd Documents/Facultad/ACS/Tareas/Tarea2
[galigaribaldi@MacBook-Pro-de-Hernan Tarea2 % ls
exec            execfork.c
[galigaribaldi@MacBook-Pro-de-Hernan Tarea2 % ./exec
done with main program
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[galigaribaldi@MacBook-Pro-de-Hernan Tarea2 % ./exec
done with main program
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Ejecuté 5 veces el programa y siempre se ejecuta primero el "*Done with de Programe*" y después la sentencia "*ls*"