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#include <stdio.h>
#include <unistd.h>
#include <stdlib.h>
#include <sys/wait.h>
#include <string.h>

// man -s 3 getenv

int main(int argc, char *argv[])
{
    int a, b, c, d;
    pid_t pid;
    int x;
    int i;
    if(argc < 5){
        printf("You must have 4 arguments to the progrm\n");
        exit(242);
    }
    a = atoi(argv[1]);
    b = atoi(argv[2]);
    c = atoi(argv[3]);
    d = atoi(argv[4]);

    if((pid = fork()) < 0)
    {
        printf("Couldn't fork a process");
        exit(2);
    }

    if(pid == 0){ // child code
        printf("The forking process %d\n", a+b);
        printf("I am going to execve another process also: \n");
        char *args[] = {"diffproc", "10", "5", 0};
        char *environ[] =
        {
            "HOME=/Users/Abukmail",
            "PATH=/Users/Abukamil:/bin:/usr/bin:.",
            "USER=abukmail",
            "LOGNAME=abukmail",
            0
        };

        execve(args[0], &args[0], environ);

    }else{ // parent code
        for(i = 0; i < 100000; i++);
        printf("%d\n", c+d);
    }

    printf("The process id is: %d and my parent is: %d\n", getpid(), getppid());

}

/* the env variables getting and setting

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char path[200];

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printf("%s\n", getenv("SHELL"));
printf("%s\n", getenv("PATH"));
strcpy(path, "/opt:");
setenv("PATH", strcat(path, getenv("PATH")), 1);
printf("%s\n", getenv("PATH"));
*/
```