CST 334 (Operating Systems)
Dr. Glenn Bruns

Lab: C Process API

Try to answer the first couple of problems from memory.

1. What function does a C program call to create a new process?

2. Explain what the function 'exec' does.

3. Answer question 1 in Chapter 5 of OSTEP (our text). Save your code, and put a comment in the code that answers the question. You can use the code shown below as your starting point.

http://pages.cs.wisc.edu/~remzi/OSTEP/

4. Answer question 2 in Chapter 5. In my code, the file open call looks something like this:

```
fd = open("/home/CLASSES/brunsglenn/ctests/proc_api/temp.c", O_WRONLY);
```

Look at the man page for fopen for details, and to see if you need to include anything. Use command `man 2 write` to get info about the write system call.

5. Answer question 3 in Chapter 5.

(code for problem 3:)

```c
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>

int main() {
  // what does a child process see of a variable set by its parent?

  int x = 1;
  int rc = fork();
  if (<your code here>) {
     printf("fork error\n");
     exit(1);
  }
  if (<your code here>) {
     <your code here>
  } else {
     <your code here>
  }
}
```