LAB 2: EXPLORING SYSTEM CALLS

SOURCE CODE:

#include <stdio.h>

#include <unistd.h>

#include <fcntl.h>

#include <sys/types.h>

#include <sys/stat.h>

int main() {

pid\_t pid;

char \*filename = "example.txt";

mode\_t mode = S\_IRUSR | S\_IWUSR | S\_IRGRP | S\_IROTH; // File permissions: 644

// Fork the process

pid = fork();

if (pid < 0) {

// Error occurred

perror("Fork failed");

return 1;

} else if (pid == 0) {

// Child process

int fd = open(filename, O\_WRONLY | O\_CREAT, mode);

if (fd == -1) {

perror("Error opening/creating file in child process");

return 1;

}

close(fd);

printf("Child process: File '%s' created successfully. PID: %d\n", filename, getpid());

} else {

// Parent process

printf("Parent process: Child PID = %d, Parent PID = %d\n", pid, getpid());

}

return 0;

}

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