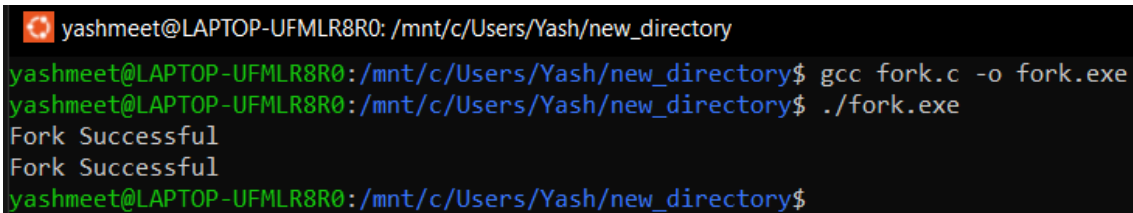


Fork Program

Same program, Same code

```
#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>

int main()
{
    pid_t pid;
    pid = fork();
    if(pid<0)
    {
        printf("Error in fork");
        return -1;
    }
    printf("Fork Successful\n");
    return 0;
}
```



A terminal window showing the execution of the fork program. The prompt is yashmeet@LAPTOP-UFMLR8R0: /mnt/c/Users/Yash/new_directory. The user enters gcc fork.c -o fork.exe, then ./fork.exe. The output shows two lines of "Fork Successful".

```
yashmeet@LAPTOP-UFMLR8R0: /mnt/c/Users/Yash/new_directory
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ gcc fork.c -o fork.exe
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ ./fork.exe
Fork Successful
Fork Successful
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$
```

Same Program, different code

```
#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>

int main()
{
    pid_t pid;
    pid = fork();
    if(pid<0)
```

```

{
    printf("Error in fork");
    return -1;
}

if(pid==0)
{
    printf("I am the child process with pid %d\n",getpid());
}

if(pid>0)
{
    printf("I am the parent process with pid %d\n",getpid());
}
return 0;
}

```

```

yashmeet@LAPTOP-UFMLR8R0: /mnt/c/Users/Yash/new_directory
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ gcc fork.c -o fork.exe
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ ./fork.exe
I am the child process with pid 38
I am the parent process with pid 37
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ _

```

Parent waits for child

```

#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>
#include <wait.h>

int main()
{
    pid_t pid;
    pid = fork();
    if(pid<0)
    {
        printf("Error in fork");
        return -1;
    }

    if(pid==0)
    {
        execlp("ls","ls",NULL);
        printf("I am the child process with pid %d\n",getpid());
    }
}

```

```
}

if(pid>0)
{   wait(NULL);]
    printf("I am the parent process with pid %d\n",getpid());
}
return 0;
}
```

```
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ gcc fork.c -o fork.exe
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$ ./fork.exe
fork.c fork.exe node_modules package-lock.json package.json server.js
I am the parent process with pid 125
yashmeet@LAPTOP-UFMLR8R0:/mnt/c/Users/Yash/new_directory$
```