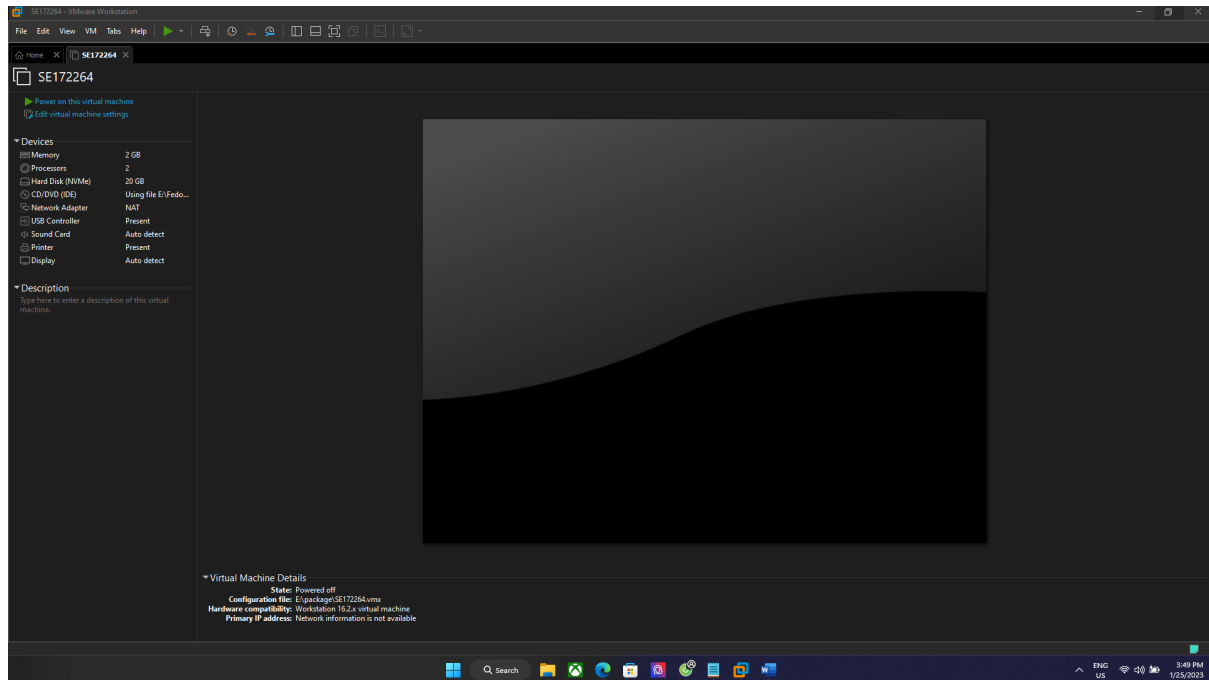
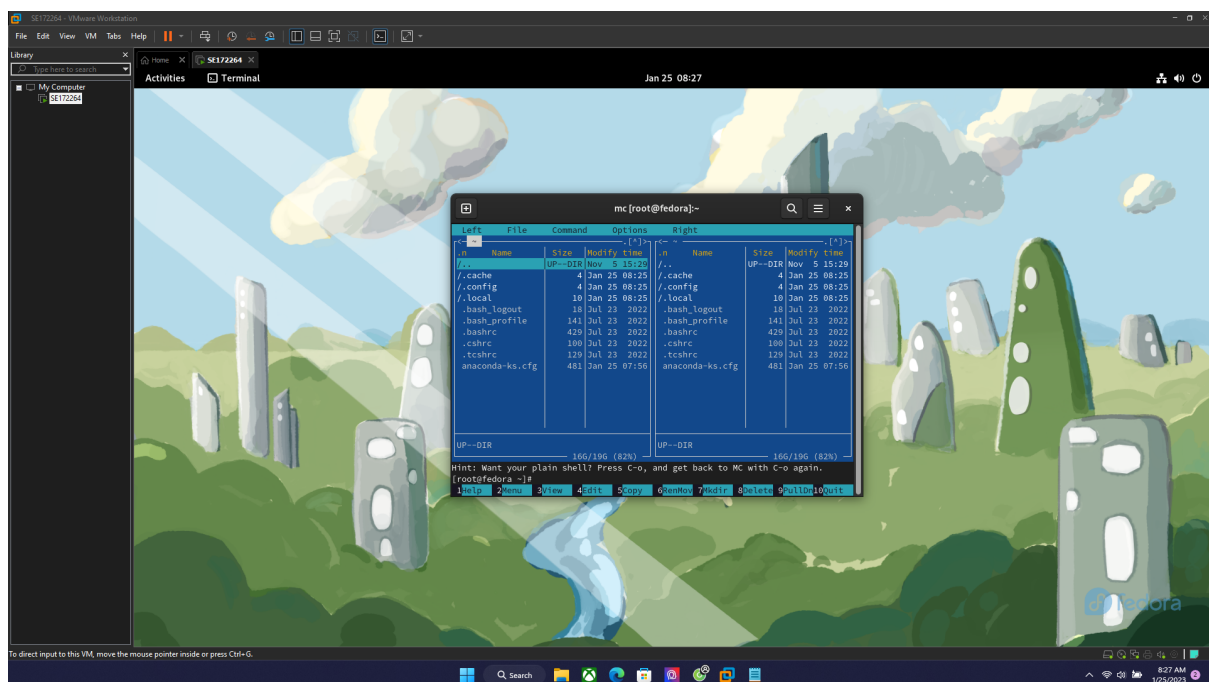


This is my virtual machine on VMware Workstation 16 with fedora 37



## 1. Install Midnight Commander

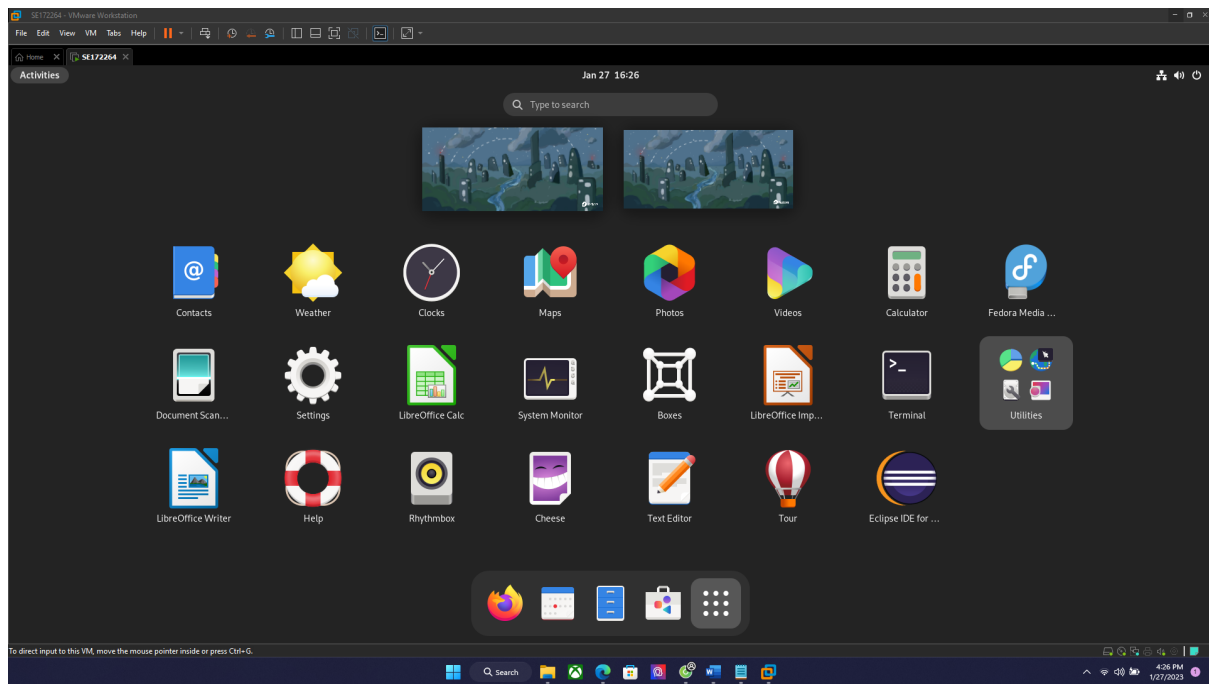
- Step 1: I take administration by "sudo -i" command in terminal
- Step 2: I have installed midnight commander by using "yum -y install mc" command in terminal
- Step 3: open Midnight Commander by "mc" command in terminal



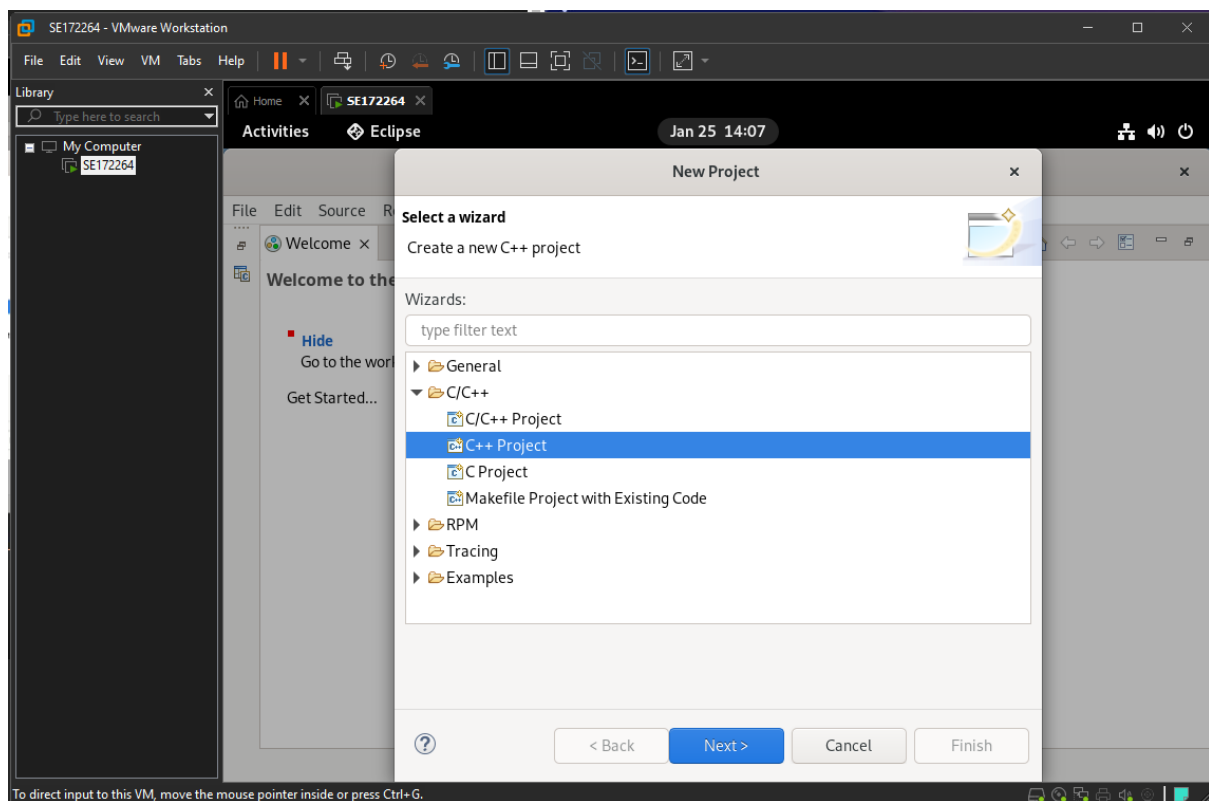
## 2. Install and use the Fedora Eclipse for C/C++

## a) Testing code

I have installed Eclipse IDE for C and C++

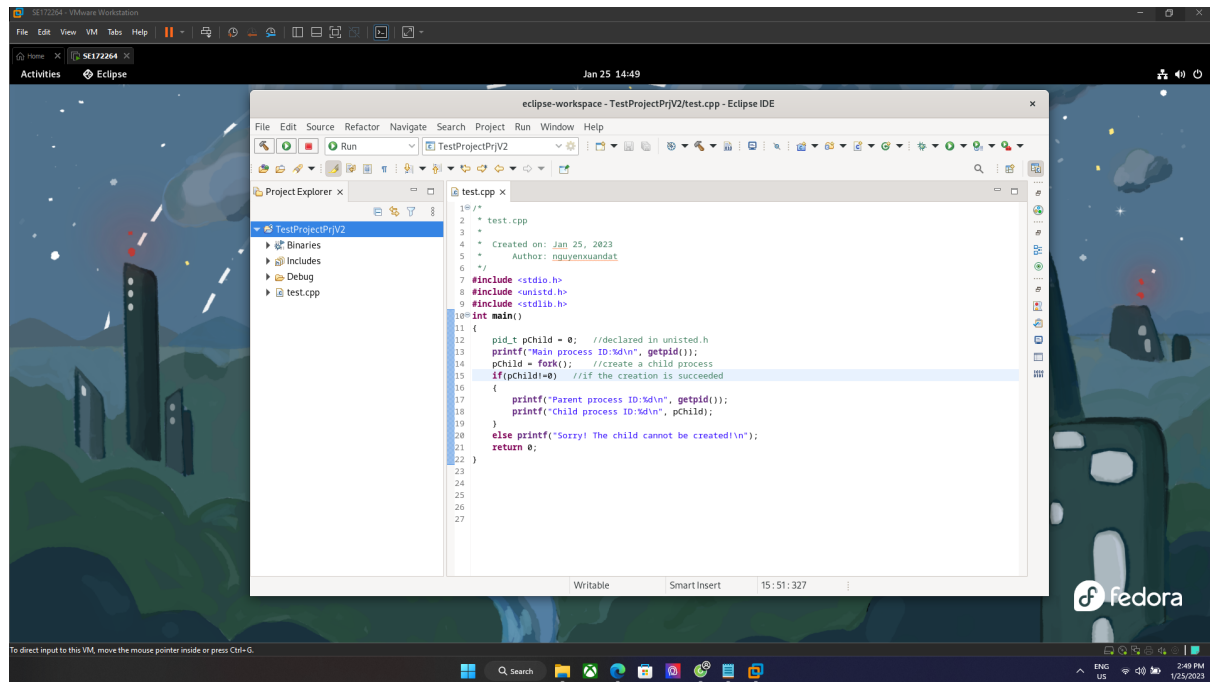


## Creating C++ project

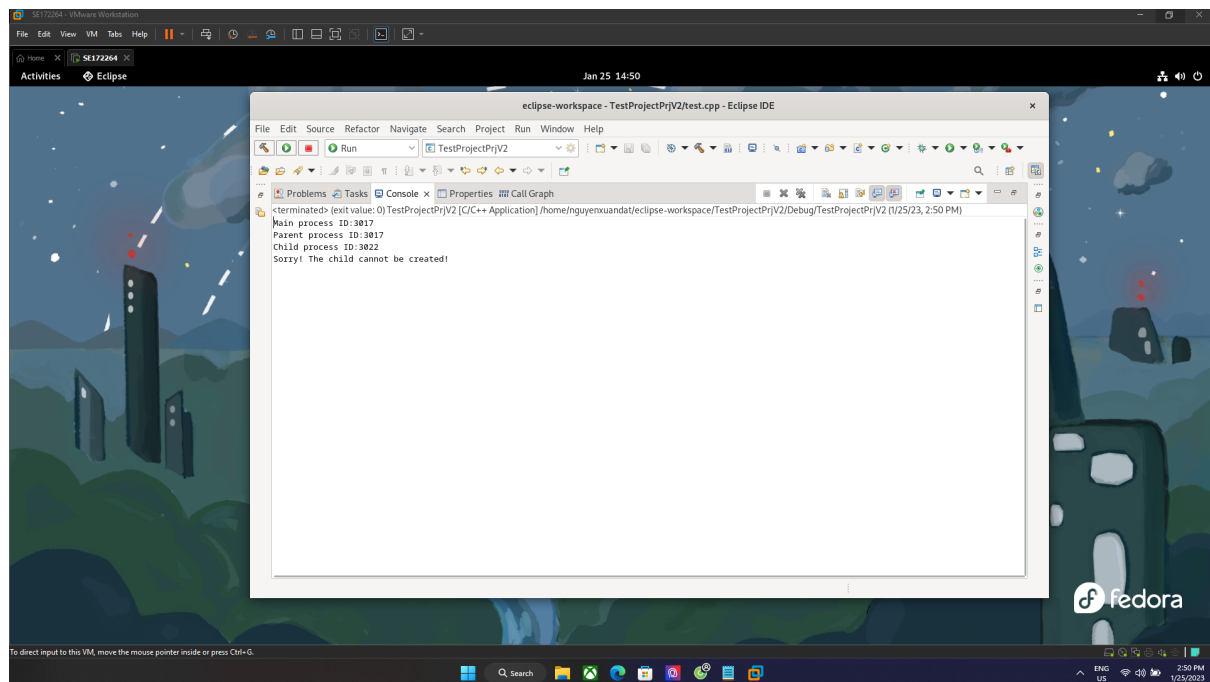


Writing Test.cpp and run

**Note:** it's TestProcesses.cpp in lab1



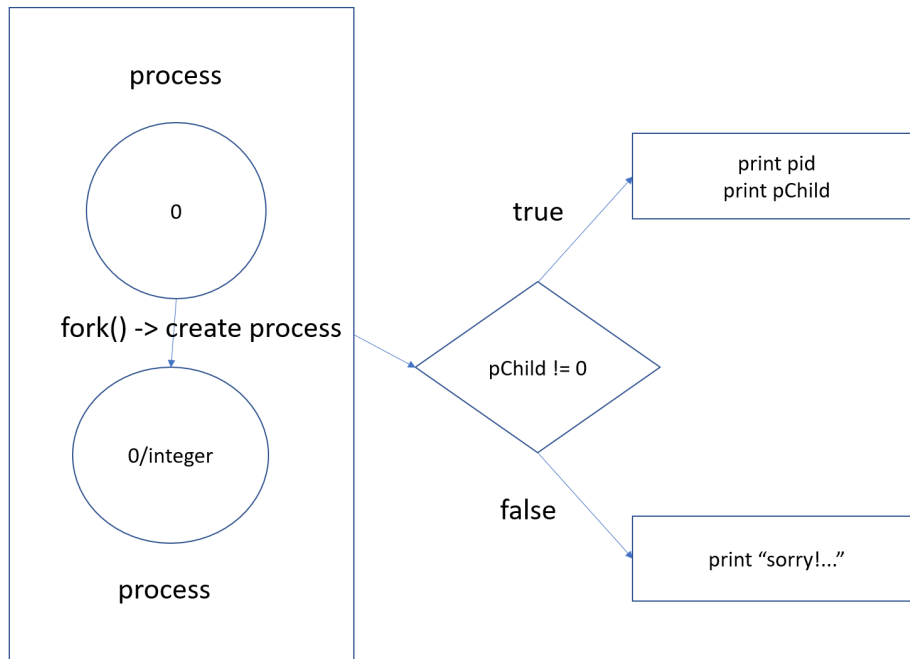
```
1 10 /*
2  * test.cpp
3  *
4  * Created on: Jan 25, 2023
5  * Author: nguyensuandat
6  */
7 #include <stdio.h>
8 #include <unistd.h>
9 #include <stdlib.h>
10 int main()
11 {
12     pid_t pChild = 0; //declared in unistd.h
13     printf("Main process ID:%d\n", getpid());
14     pChild = fork(); //create a child process
15     if(pChild != 0) //if the creation is succeeded
16     {
17         printf("Parent process ID:%d\n", getpid());
18         printf("Child process ID:%d\n", pChild);
19     }
20     else printf("Sorry! The child cannot be created!\n");
21     return 0;
22 }
23
24
25
26
27
```



```
terminated (exit value: 0) TestProjectPrjV2 [C/C++ Application] /home/nguyensuandat/eclipse-workspace/TestProjectPrjV2/Debug/TestProjectPrjV2 (1/25/23, 2:50 PM)
Main process ID:3017
Parent process ID:3017
Child process ID:3022
Sorry! The child cannot be created!
```

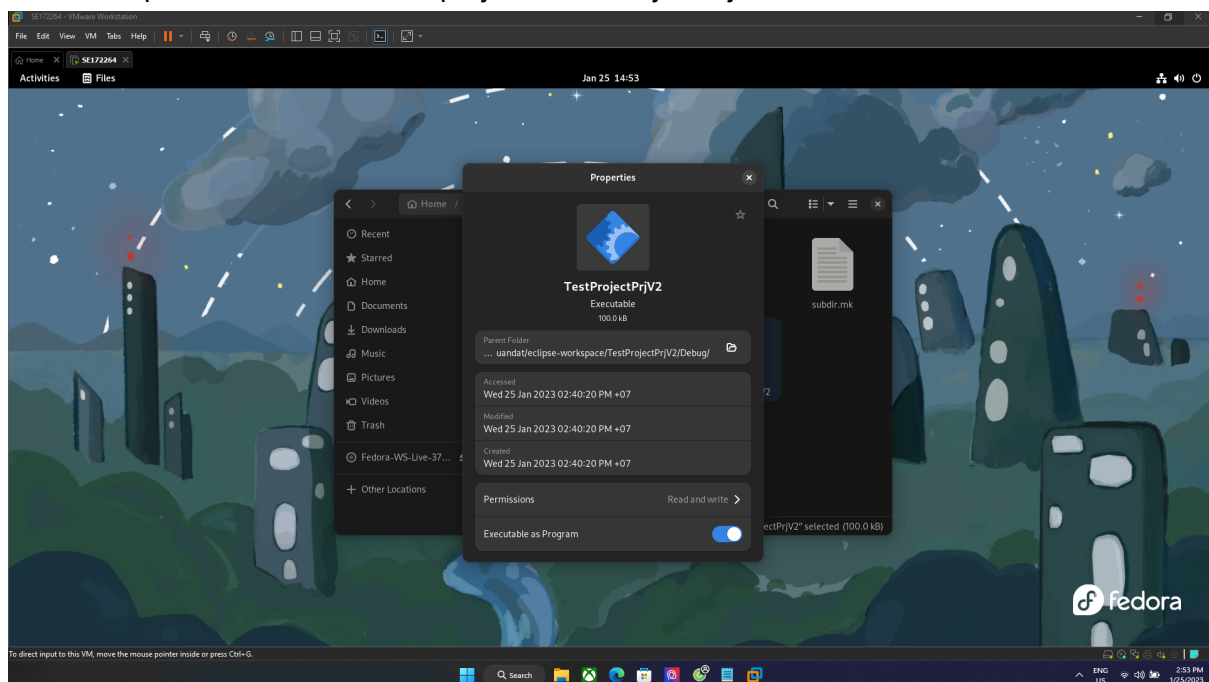
Requirement: Try to explain the line “Sorry! The child can not be created” is printed ?

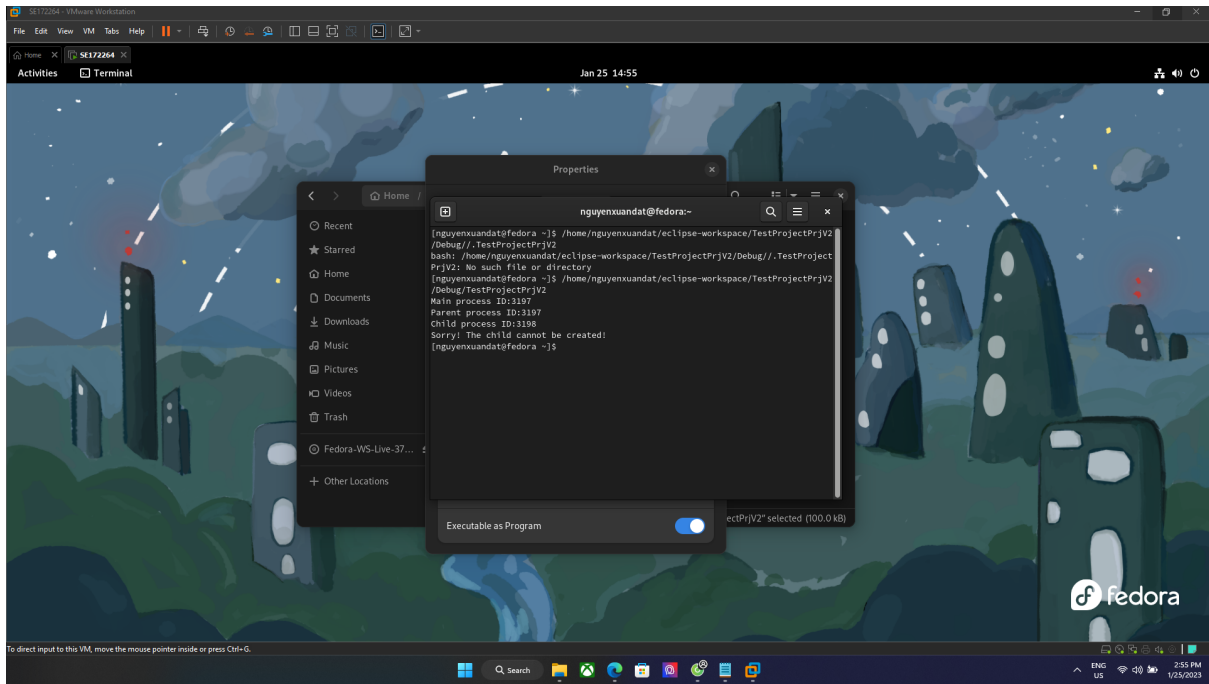
Answer: the condition is “pChild != 0” and fork() creates one more process. I have searched and guessed that two processes get in the if command so we have the above line and 2 printed lines.



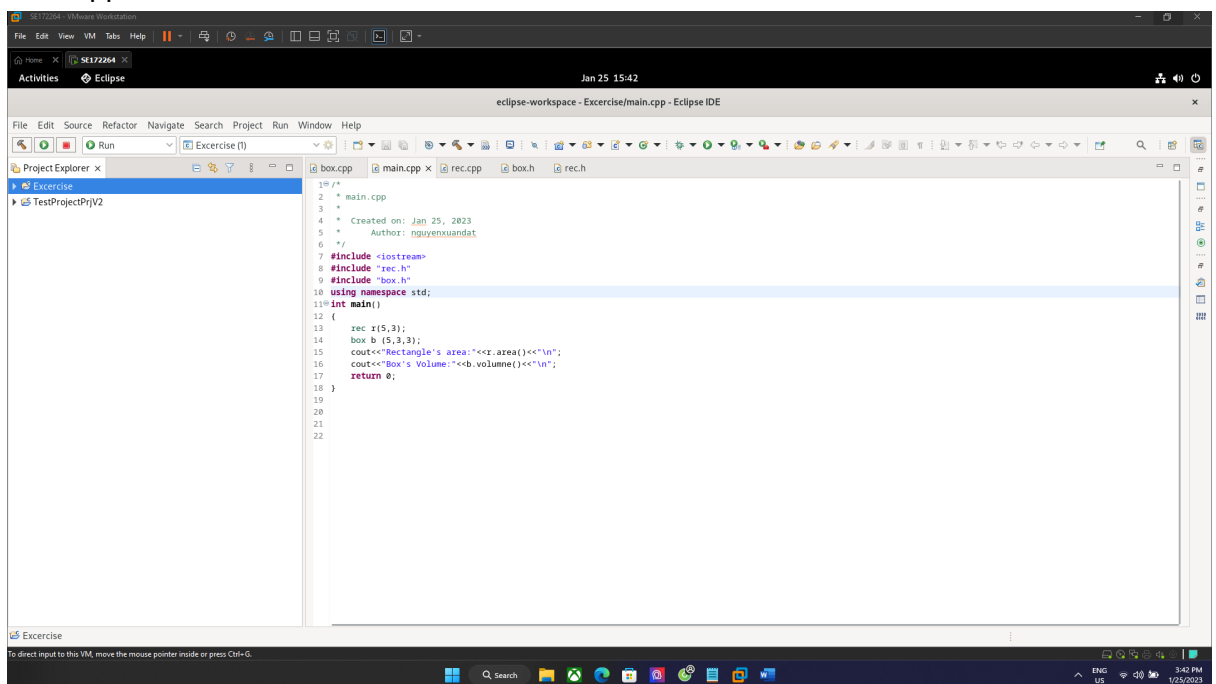
Run my program outside the Eclipse

- Step 1: I copy Parent Folder address
- Step 2: Paste it in to terminal
- Step 3: Write the name of project: "TestProjectPrjV2" behind the address then Enter

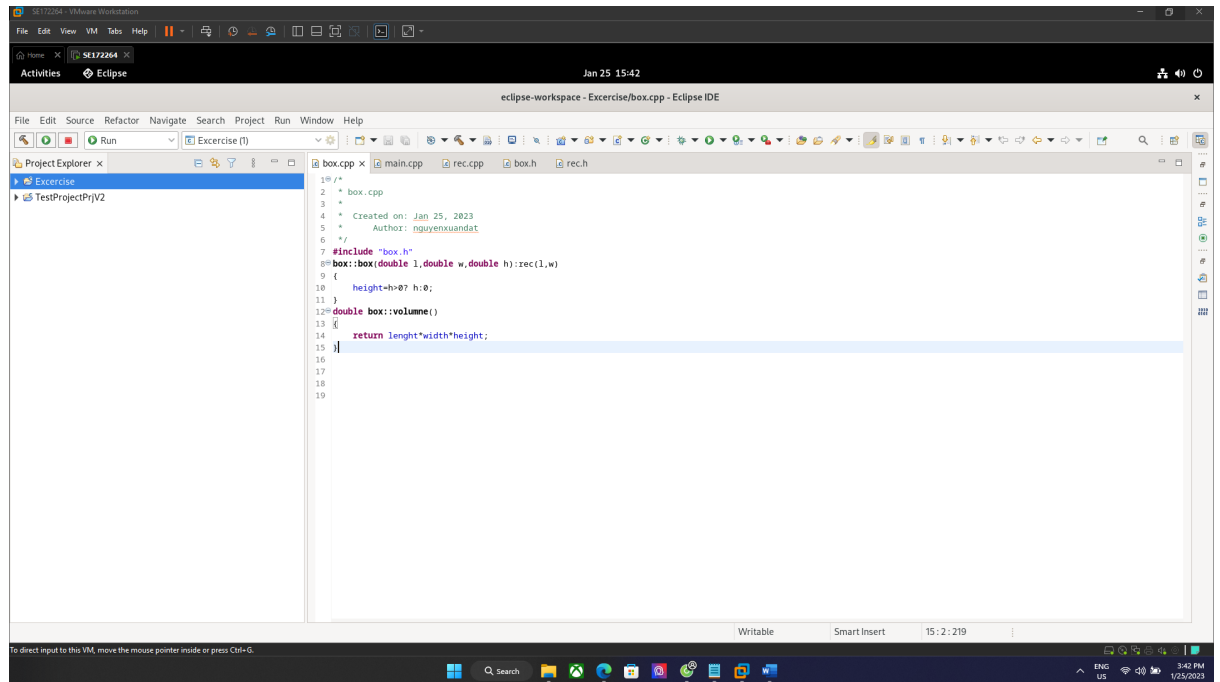




## b) Doing Exercise main.cpp

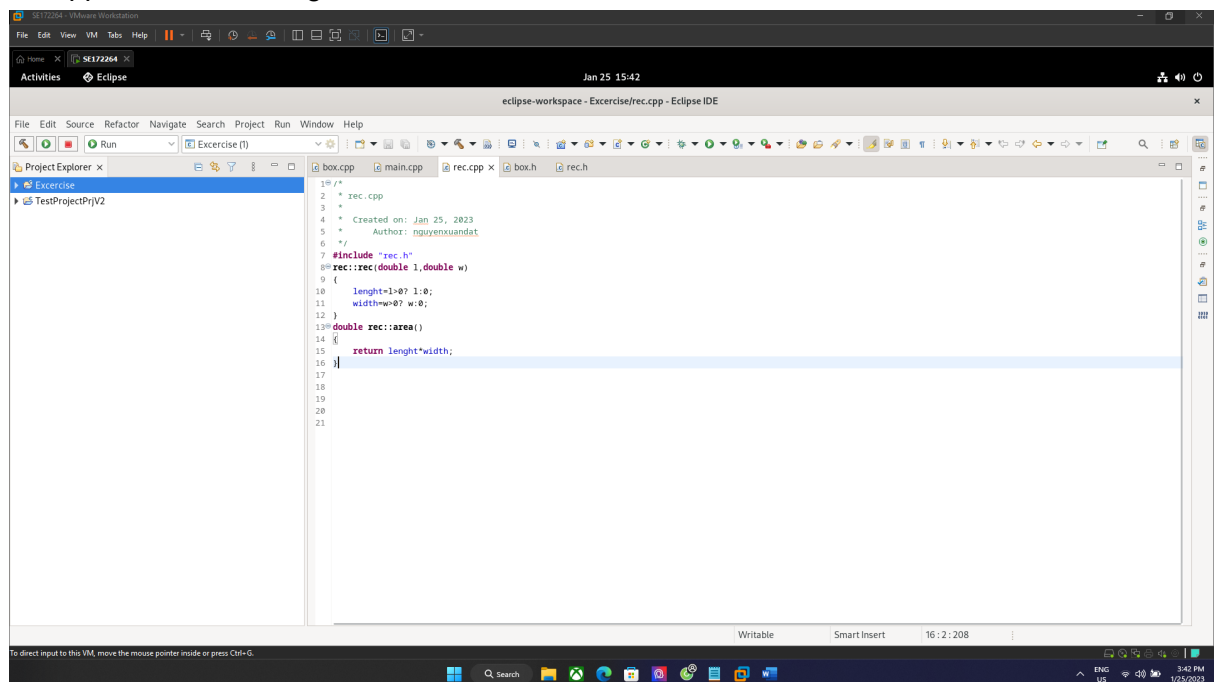


## box.cpp



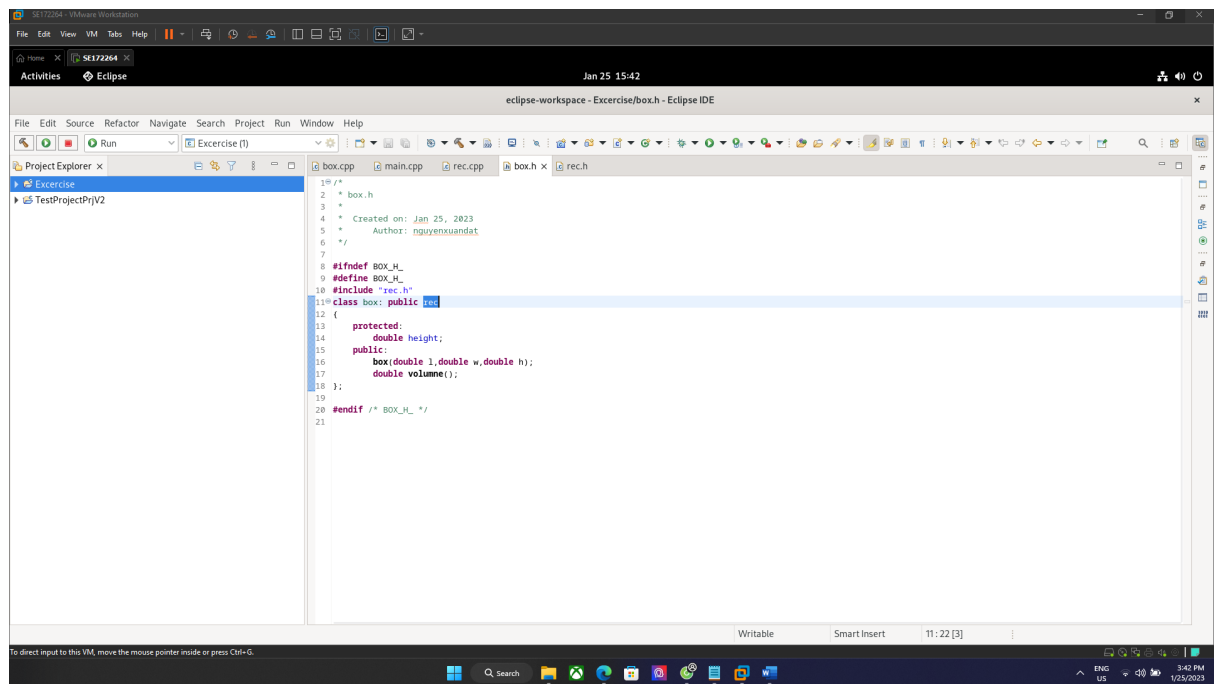
```
1 //  
2 * box.cpp  
3 *  
4 * Created on: Jan 25, 2023  
5 * Author: nguyenuandat  
6 */  
7 #include "box.h"  
8  
9 box::box(double l, double w, double h): rec(l, w)  
10 {  
11     height = h * 0.7; h = 0;  
12 }  
13  
14 double box::volume()  
15 {  
16     return length * width * height;  
17 }  
18  
19
```

## rec.cpp //Rectangle

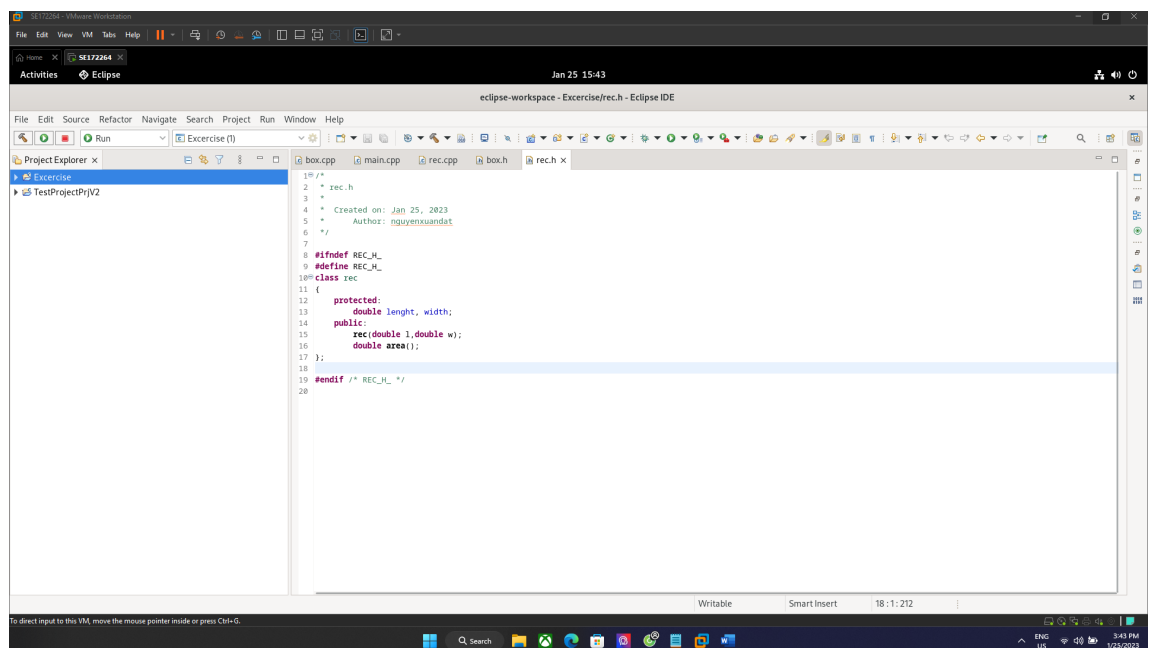


```
1 //  
2 * rec.cpp  
3 *  
4 * Created on: Jan 25, 2023  
5 * Author: nguyenuandat  
6 */  
7 #include "rec.h"  
8  
9 rec::rec(double l, double w)  
10 {  
11     length = l * 0.7; l = 0;  
12     width = w * 0.7; w = 0;  
13 }  
14  
15 double rec::area()  
16 {  
17     return length * width;  
18 }  
19  
20  
21
```

## box.h



## rec.h



## result

