File Browser ▾　　Open ▾ 🗋　　　　**file4.cpp**
~/Desktop/612203042/Assign 5　　Save ≡ _ ◻ ✕

📄 file4.cpp
📄 file4.s

```cpp
#include<iostream>

void swapbyvalue(int i, int j){
    int t = i;
    i = j;
    j = t;
}

void swapbyreference(int &i, int &j){
    int t = i;
    i = j;
    j = t;
}

int main(){
    int i=5,j=10;

    std::cout << "Original values: Number 1= " << i << ", Number 2= " << j << std::endl;
    std::cout << "Swaping by value" << std::endl;
    swapbyvalue(i, j);
    std::cout << "After swaping, the first number is:" << i << std::endl;
    std::cout << "After swaping, the second number is:" << j << std::endl;

    i=5,j=10;
    std::cout << "\nOriginal values: Number 1= " << i << ", Number 2= " << j << std::endl;
    std::cout << "Swaping by reference" << std::endl;
    swapbyreference(i, j);
    std::cout << "After swaping, the first number is:" << i << std::endl;
    std::cout << "After swaping, the second number is:" << j << std::endl;

    return 0;
}
```

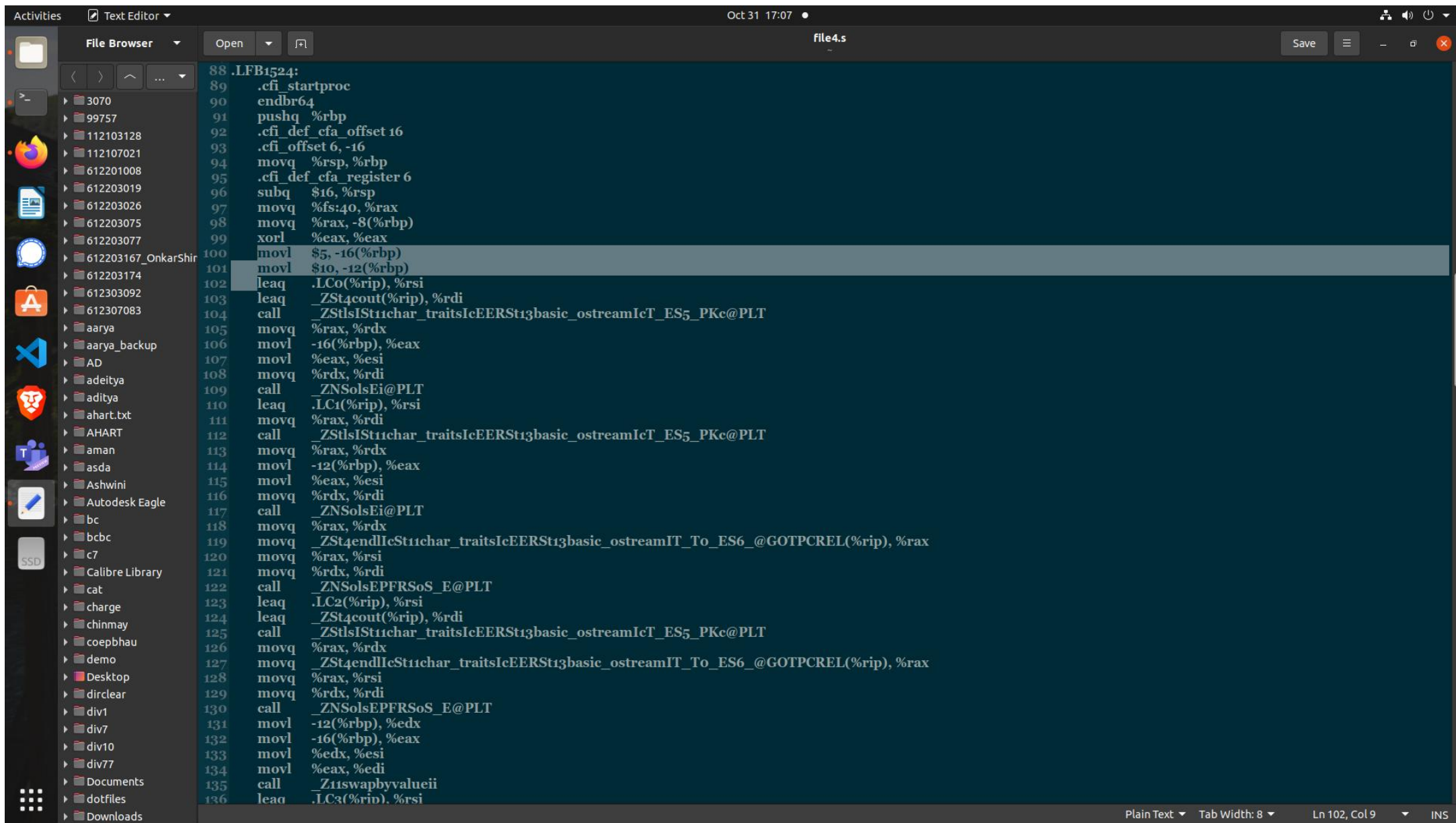Loading file "/home/student/Desktop/612203042/Assign 5/file4.cpp"...　　　　C++ ▾　Tab Width: 8 ▾　　Ln 1, Col 1　　▾　INS

```
student@coep-HLBS-CM-44:~$ gedit file4.cpp
^C
student@coep-HLBS-CM-44:~$ g++ file4.cpp -o file4
student@coep-HLBS-CM-44:~$ ./file4
Original values: Number 1=  5, Number 2=  10
Swaping by value
After swaping, the first number is:5
After swaping, the second number is:10

Original values: Number 1=  5, Number 2=  10
Swaping by reference
After swaping, the first number is:10
After swaping, the second number is:5
student@coep-HLBS-CM-44:~$ g++ -S file4.cpp
student@coep-HLBS-CM-44:~$ gedit file4.s
^C
student@coep-HLBS-CM-44:~$ []
```

call by value

file4.s

```
88  .LFB1524:
89      .cfi_startproc
90      endbr64
91      pushq   %rbp
92      .cfi_def_cfa_offset 16
93      .cfi_offset 6, -16
94      movq    %rsp, %rbp
95      .cfi_def_cfa_register 6
96      subq    $16, %rsp
97      movq    %fs:40, %rax
98      movq    %rax, -8(%rbp)
99      xorl    %eax, %eax
100     movl    $5, -16(%rbp)
101     movl    $10, -12(%rbp)
102     leaq    .LC0(%rip), %rsi
103     leaq    _ZSt4cout(%rip), %rdi
104     call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
105     movq    %rax, %rdx
106     movl    -16(%rbp), %eax
107     movl    %eax, %esi
108     movq    %rdx, %rdi
109     call    _ZNSolsEi@PLT
110     leaq    .LC1(%rip), %rsi
111     movq    %rax, %rdi
112     call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
113     movq    %rax, %rdx
114     movl    -12(%rbp), %eax
115     movl    %eax, %esi
116     movq    %rdx, %rdi
117     call    _ZNSolsEi@PLT
118     movq    %rax, %rdx
119     movq    _ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_To_ES6_@GOTPCREL(%rip), %rax
120     movq    %rax, %rsi
121     movq    %rdx, %rdi
122     call    _ZNSolsEPFRSoS_E@PLT
123     leaq    .LC2(%rip), %rsi
124     leaq    _ZSt4cout(%rip), %rdi
125     call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
126     movq    %rax, %rdx
127     movq    _ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_To_ES6_@GOTPCREL(%rip), %rax
128     movq    %rax, %rsi
129     movq    %rdx, %rdi
130     call    _ZNSolsEPFRSoS_E@PLT
131     movl    -12(%rbp), %edx
132     movl    -16(%rbp), %eax
133     movl    %edx, %esi
134     movl    %eax, %edi
135     call    _Z11swapbyvalueii
136     leaq    .LC3(%rip), %rsi
```

Plain Text ▾   Tab Width: 8 ▾   Ln 102, Col 9   INS

call by reference

File Browser ▾   Open ▾   ⊞   file4.s   Save   ☰   – ◻ ✕

```
152      movq    %rax, %rdx
153      movl    -12(%rbp), %eax
154      movl    %eax, %esi
155      movq    %rdx, %rdi
156      call    _ZNSolsEi@PLT
157      movq    %rax, %rdx
158      movq    _ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_To_ES6_@GOTPCREL(%rip), %rax
159      movq    %rax, %rsi
160      movq    %rdx, %rdi
161      call    _ZNSolsEPFRSoS_E@PLT
162      movl    $5, -16(%rbp)
163      movl    $10, -12(%rbp)
164      leaq    .LC5(%rip), %rsi
165      leaq    _ZSt4cout(%rip), %rdi
166      call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
167      movq    %rax, %rdx
168      movl    -16(%rbp), %eax
169      movl    %eax, %esi
170      movq    %rdx, %rdi
171      call    _ZNSolsEi@PLT
172      leaq    .LC1(%rip), %rsi
173      movq    %rax, %rdi
174      call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
175      movq    %rax, %rdx
176      movl    -12(%rbp), %eax
177      movl    %eax, %esi
178      movq    %rdx, %rdi
179      call    _ZNSolsEi@PLT
180      movq    %rax, %rdx
181      movq    _ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_To_ES6_@GOTPCREL(%rip), %rax
182      movq    %rax, %rsi
183      movq    %rdx, %rdi
184      call    _ZNSolsEPFRSoS_E@PLT
185      leaq    .LC6(%rip), %rsi
186      leaq    _ZSt4cout(%rip), %rdi
187      call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
188      movq    %rax, %rdx
189      movq    _ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_To_ES6_@GOTPCREL(%rip), %rax
190      movq    %rax, %rsi
191      movq    %rdx, %rdi
192      call    _ZNSolsEPFRSoS_E@PLT
193      leaq    -12(%rbp), %rdx
194      leaq    -16(%rbp), %rax
195      movq    %rdx, %rsi
196      movq    %rax, %rdi
197      call    _Z15swapbyreferenceRiS_
198      leaq    .LC3(%rip), %rsi
199      leaq    _ZSt4cout(%rip), %rdi
200      call    _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_PKc@PLT
```

File browser sidebar: 3070, 99757, 112103128, 112107021, 612201008, 612203019, 612203026, 612203075, 612203077, 612203167_OnkarShin, 612203174, 612303092, 612307083, aarya, aarya_backup, AD, adeitya, aditya, ahart.txt, AHART, aman, asda, Ashwini, Autodesk Eagle, bc, bcbc, c7, Calibre Library, cat, charge, chinmay, coepbhau, demo, Desktop, dirclear, div1, div7, div10, div77, Documents, dotfiles, Downloads