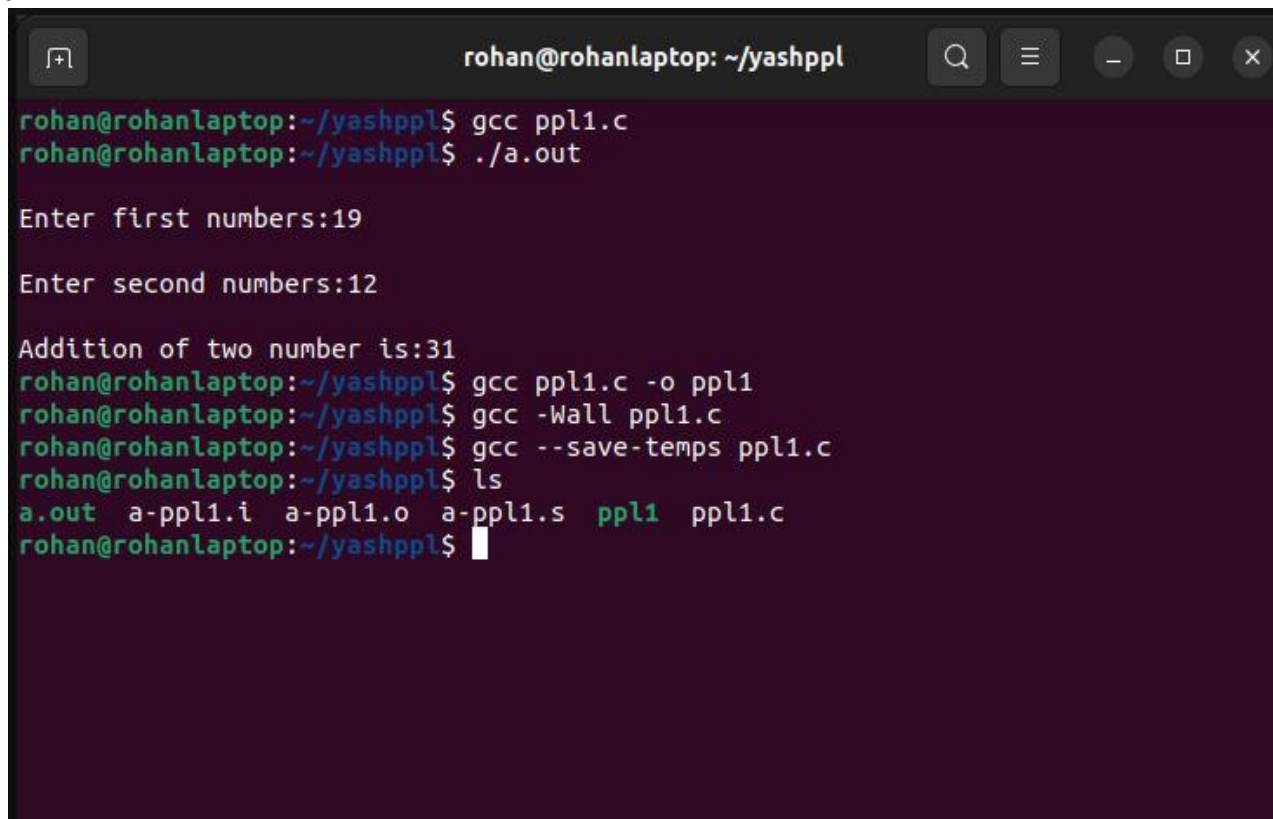


Assignment No:01**Program:**

```
#include<stdio.h>
void sum(int a, int b){
int sum; sum = a + b;
    printf("\nAddition of two number is:%d\n",sum);
}; int main(){
int a, b;
    printf("\nEnter first numbers:");
    scanf("%d", &a); printf("\nEnter
second numbers:"); scanf("%d",
&b); sum(a, b); return 0;
}
```



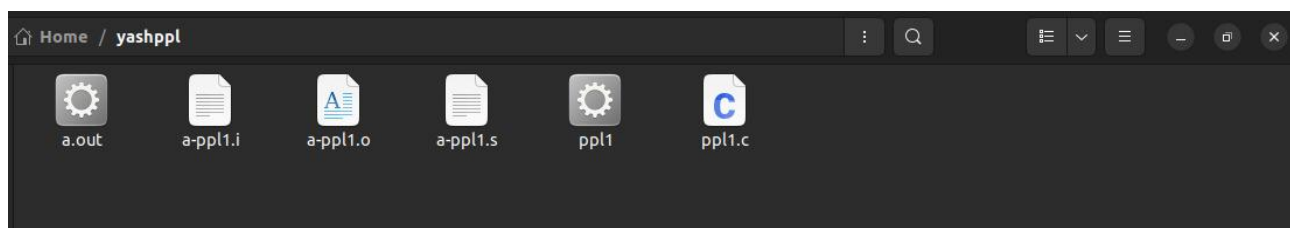
A terminal window titled "rohan@rohanlaptop: ~/yashppl" showing the compilation and execution of the C program. The user enters the first number 19 and the second number 12. The program outputs "Addition of two number is:31". Subsequent commands show the creation of the executable "ppl1" and the listing of files in the directory.

```
rohan@rohanlaptop:~/yashppl$ gcc ppl1.c
rohan@rohanlaptop:~/yashppl$ ./a.out

Enter first numbers:19

Enter second numbers:12

Addition of two number is:31
rohan@rohanlaptop:~/yashppl$ gcc ppl1.c -o ppl1
rohan@rohanlaptop:~/yashppl$ gcc -Wall ppl1.c
rohan@rohanlaptop:~/yashppl$ gcc --save-temps ppl1.c
rohan@rohanlaptop:~/yashppl$ ls
a.out a-ppl1.i a-ppl1.o a-ppl1.s ppl1 ppl1.c
rohan@rohanlaptop:~/yashppl$
```



file.i:

```
Open v [ ] a-ppl1.1 /SPPPL Lab/assignment_1
a-ppl1.1 x a-ppl1.5

# 0 "ppl1.c"
# 0 "<built-ins>"
# 0 "<command-lines>"
# 1 "/usr/include/stdc-predef.h" 1 3 4
# 0 "<command-lines>" 2
# 1 "ppl1.c"
# 1 "/usr/include/stddef.h" 1 3 4
# 27 "/usr/include/stddef.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/bits/libc-header-start.h" 1 3 4
# 33 "/usr/include/x86_64-linux-gnu/bits/libc-header-start.h" 3 4
# 1 "/usr/include/features.h" 1 3 4
# 393 "/usr/include/features.h" 3 4
# 1 "/usr/include/features-time64.h" 1 3 4
# 20 "/usr/include/features-time64.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/bits/wordsize.h" 1 3 4
# 21 "/usr/include/features-time64.h" 2 3 4
# 1 "/usr/include/x86_64-linux-gnu/bits/timesize.h" 1 3 4
# 19 "/usr/include/x86_64-linux-gnu/bits/timesize.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/bits/wordsize.h" 1 3 4
# 20 "/usr/include/x86_64-linux-gnu/bits/timesize.h" 2 3 4
# 22 "/usr/include/features-time64.h" 2 3 4
# 394 "/usr/include/features.h" 2 3 4
# 487 "/usr/include/features.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 1 3 4
# 561 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/bits/wordsize.h" 1 3 4
# 562 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 2 3 4
# 1 "/usr/include/x86_64-linux-gnu/bits/long-double.h" 1 3 4
# 563 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 2 3 4
# 488 "/usr/include/features.h" 2 3 4
# 511 "/usr/include/features.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/gnu/stubs.h" 1 3 4
# 10 "/usr/include/x86_64-linux-gnu/gnu/stubs.h" 3 4
# 1 "/usr/include/x86_64-linux-gnu/gnu/stubs-64.h" 1 3 4
# 11 "/usr/include/x86_64-linux-gnu/gnu/stubs.h" 2 3 4
# 512 "/usr/include/features.h" 2 3 4
# 34 "/usr/include/x86_64-linux-gnu/bits/libc-header-start.h" 2 3 4
# 28 "/usr/include/stddef.h" 2 3 4
```

file.s

```

.file      "ppl1.c"
.text
.section   .rodata
.align 8

.LC0:
.string    "\nAddition of two number is:%d\n"

.text
.globl     sum
.type      sum, @function

sum:
.LFB0:

.cfi_startproc
endbr64
pushq     %rbp
.cfi_def_cfa_offset 16
.cfi_offset 6, -16
movq      %rsp, %rbp
.cfi_def_cfa_register 6
subq      $32, %rsp
movl      %edi, -20(%rbp)
movl      %esi, -24(%rbp)
movl      %edx, -20(%rbp), %edx
movl      -24(%rbp), %eax
addl      %edx, %eax
movl      %eax, -4(%rbp)
movl      -4(%rbp), %eax
movl      %eax, %esi
leaq      .LC0(%rip), %rax
movq      %rax, %rdi
movl      $0, %eax
call      printf@PLT
nop
leave
.cfi_def_cfa 7, 8
ret
.cfi_endproc

.LFE0:

```

```

                                a-pp1.1.s
.LFE0:
.cfi_endproc
.size sum, .-sum
.section .rodata
.LC1:
.string "\nEnter first numbers:"
.LC2:
.string "%d"
.LC3:
.string "\nEnter second numbers:"
.text
.globl main
.type main, @function

main:
.LFB1:
.cfi_startproc
endbr64
pushq %rbp
.cfi_def_cfa_offset 16
.cfi_offset 6, -16
movq %rsp, %rbp
.cfi_def_cfa_register 6
subq $16, %rsp
movq %fs:40, %rax
movq %rax, -8(%rbp)
xorl %eax, %eax
leaq .LC1(%rip), %rax
movq %rax, %rdi
movl $0, %eax
call printf@PLT
leaq -16(%rbp), %rax
movq %rax, %rsi
leaq .LC2(%rip), %rax
movq %rax, %rdi
movl $0, %eax
call __isoc99_scanf@PLT
leaq .LC3(%rip), %rax
movq %rax, %rdi

```

a-ppl1.s

```

    leaq    -16(%rbp), %rax
    movq    %rax, %rsi
    leaq    .LC2(%rip), %rax
    movq    %rax, %rdi
    movl    $0, %eax
    call    __isoc99_scanf@PLT
    leaq    .LC3(%rip), %rax
    movq    %rax, %rdi
    movl    $0, %eax
    call    printf@PLT
    leaq    -12(%rbp), %rax
    movq    %rax, %rsi
    leaq    .LC2(%rip), %rax
    movq    %rax, %rdi
    movl    $0, %eax
    call    __isoc99_scanf@PLT
    movl    -12(%rbp), %edx
    movl    -16(%rbp), %eax
    movl    %edx, %esi
    movl    %eax, %edi
    call    sun
    movl    $0, %eax
    movq    -8(%rbp), %rdx
    subq    %fs:40, %rdx
    je      .L4
    call    __stack_chk_fail@PLT
.L4:
    leave
    .cfi_def_cfa 7, 8
    ret
    .cfi_endproc
.LFE1:
    .size    main, .-main
    .ident   "GCC: (Ubuntu 12.3.0-1ubuntu1~23.04) 12.3.0"
    .section .note.GNU-stack,"",@progbits
    .section .note.gnu.property,"a"
    .align 8
    .long    1f - 0f
    .long    4f - 1f
    .long    5
0:
    .string  "GNU"
1:
    .align 8
    .long    0xc0000002
    .long    3f - 2f
2:
    .long    0x3
3:
    .align 8

```