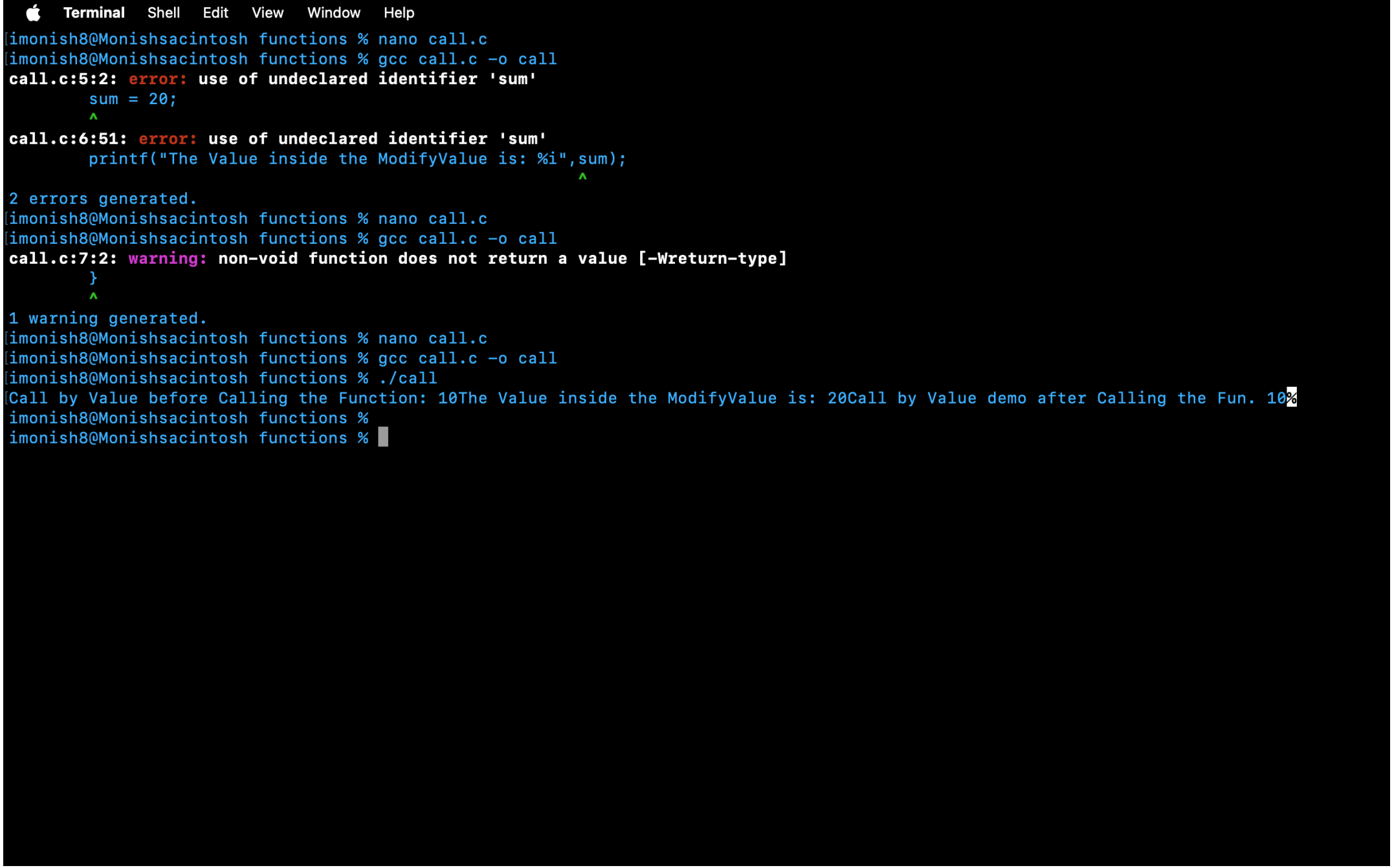
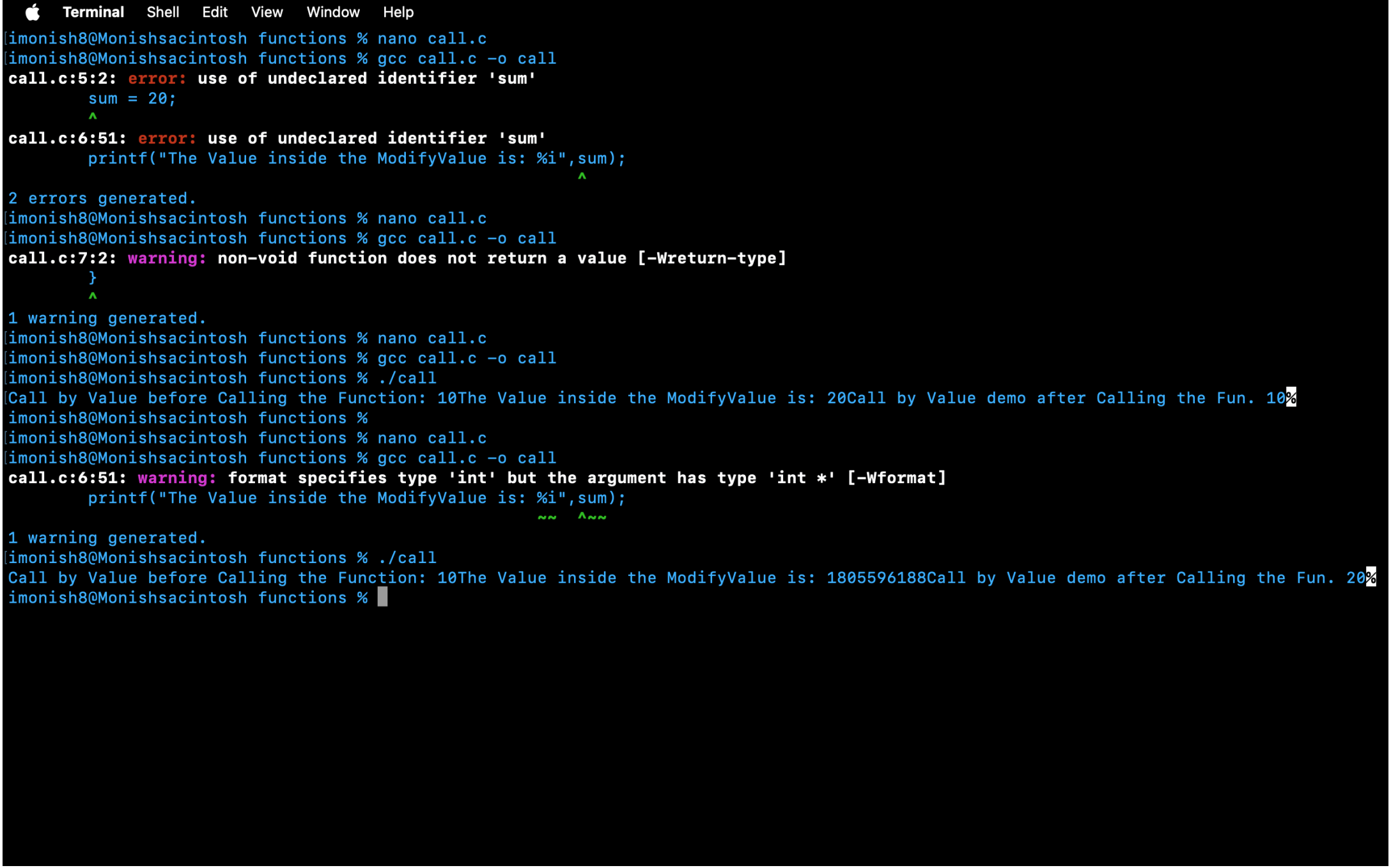
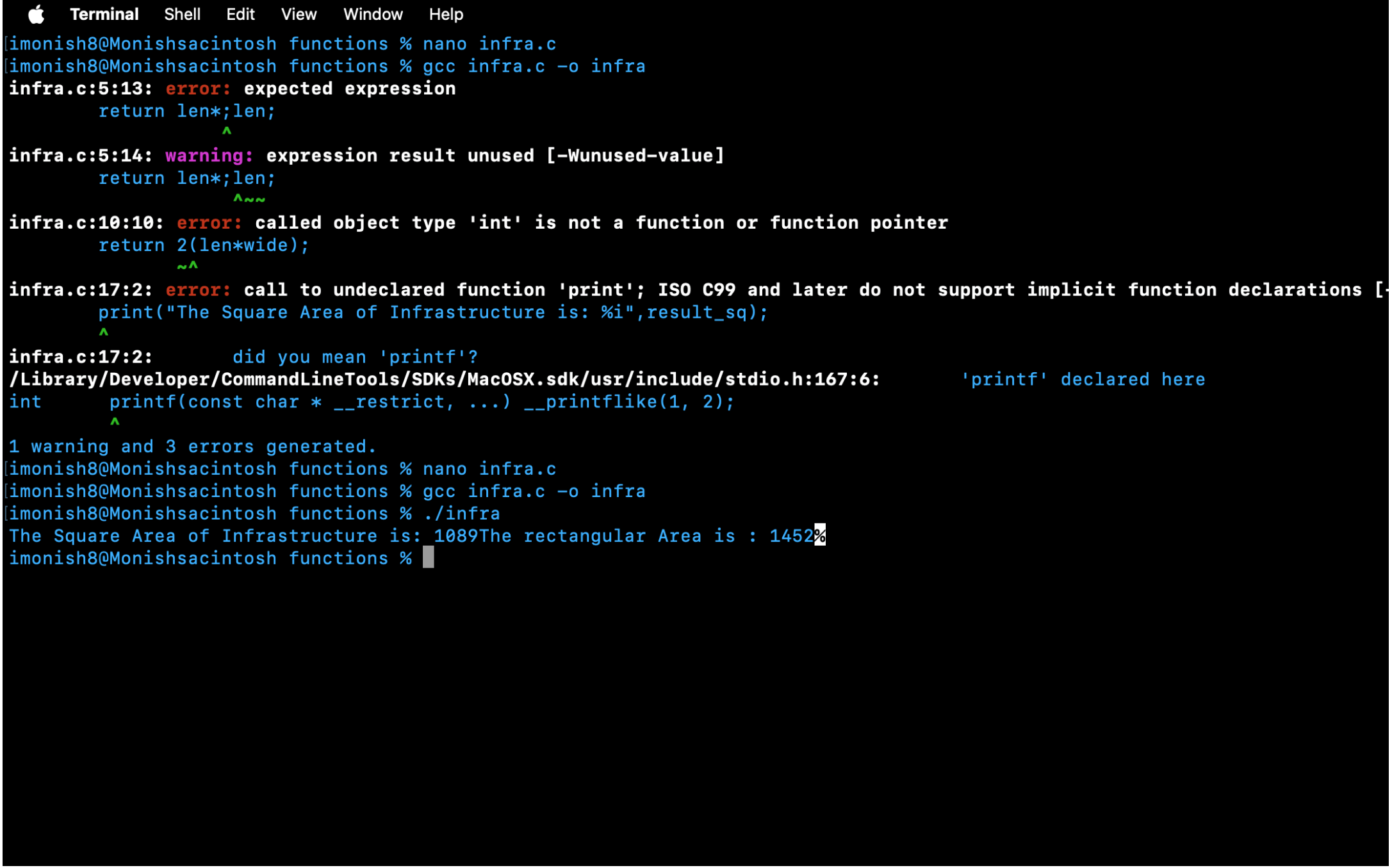
Submitted by/ Monish Nule

C Programs

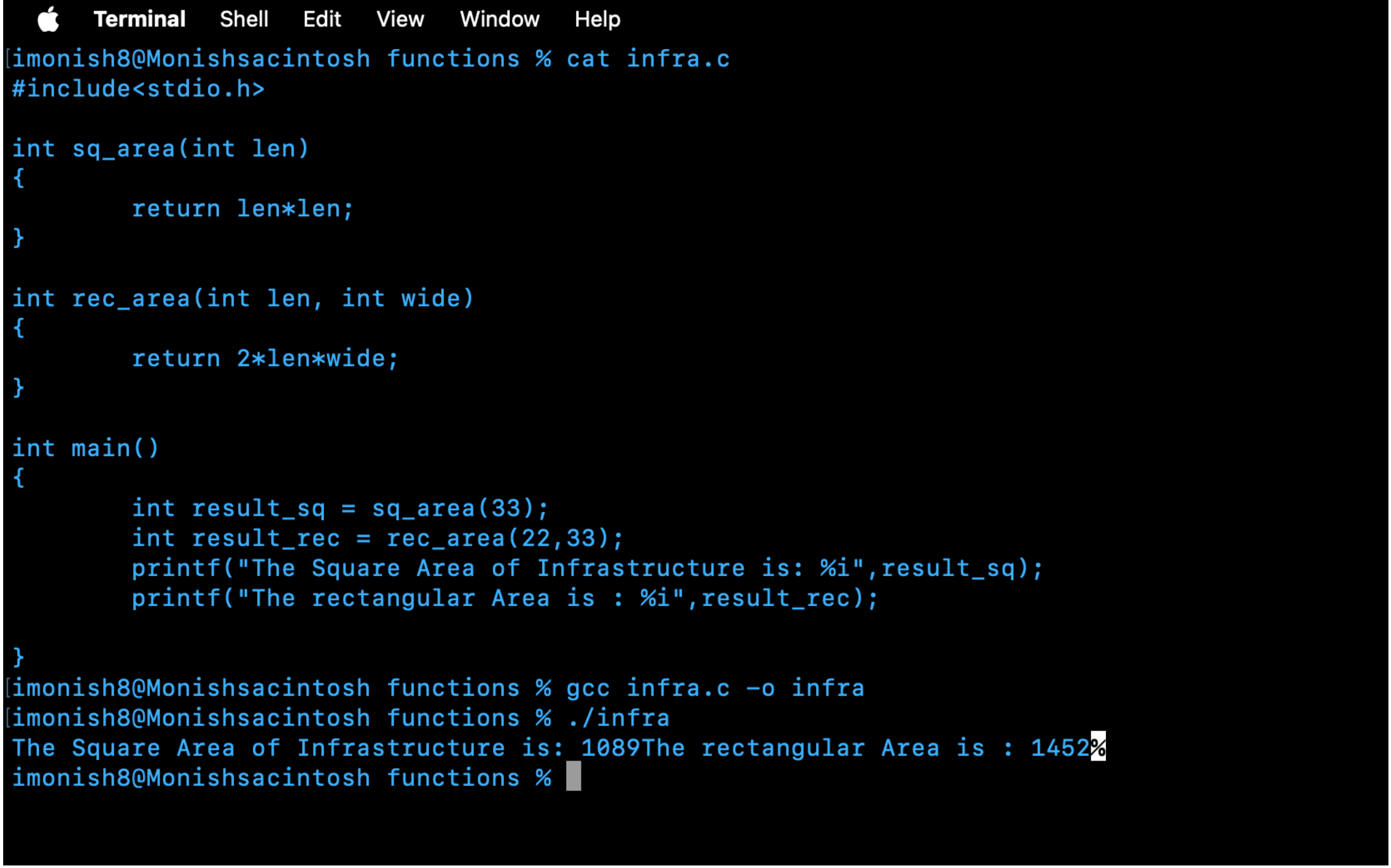
```
Terminal  Shell  Edit  View  Window  Help                                                    9:24 PM
imonish8@Monishsacintosh functions % ./fun
Showing the Types of Functions and Use of it
 A lame Function with no Arguments/ parameters and No Return type.
 Return Type Function demooReturn Type and Takes Parameters tooThe number is Even%
imonish8@Monishsacintosh functions % cat fun_types.c
#include<stdio.h>

int fun();
int fun_return();
int fun_return_arg(int);

int main() {
        printf("Showing the Types of Functions and Use of it");

        fun();
        fun_return();
        fun_return_arg(4);


        }



        int fun()
        {

        printf("\n A lame Function with no Arguments/ parameters and No Return type.");

        }



        int fun_return()
        {
        int fees = 1000;
        printf("\n Return Type Function demoo");
        return fees;
        }


        int fun_return_arg(int n)
        {
        printf("Return Type and Takes Parameters too");
        if(n % 2 == 0){
        printf("The number is Even");
        }
        else{
        printf("The Number You have entered is ODD");
        }

        }
imonish8@Monishsacintosh functions % ./fun
Showing the Types of Functions and Use of it
 A lame Function with no Arguments/ parameters and No Return type.
 Return Type Function demooReturn Type and Takes Parameters tooThe number is Even%
imonish8@Monishsacintosh functions %
```


Terminal Shell Edit View Window Help
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
call.c:5:2: error: use of undeclared identifier 'sum'
sum = 20;
^
call.c:6:51: error: use of undeclared identifier 'sum'
printf("The Value inside the ModifyValue is: %i",sum);
^
2 errors generated.
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
call.c:7:2: warning: non-void function does not return a value [-Wreturn-type]
}
^
1 warning generated.
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
imonish8@Monishsacintosh functions % ./call
Call by Value before Calling the Function: 10The Value inside the ModifyValue is: 20Call by Value demo after Calling the Fun. 10%
imonish8@Monishsacintosh functions %
imonish8@Monishsacintosh functions %


Terminal Shell Edit View Window Help
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
call.c:5:2: error: use of undeclared identifier 'sum'
sum = 20;
^
call.c:6:51: error: use of undeclared identifier 'sum'
printf("The Value inside the ModifyValue is: %i",sum);
^
2 errors generated.
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
call.c:7:2: warning: non-void function does not return a value [-Wreturn-type]
}
^
1 warning generated.
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
imonish8@Monishsacintosh functions % ./call
Call by Value before Calling the Function: 10The Value inside the ModifyValue is: 20Call by Value demo after Calling the Fun. 10%
imonish8@Monishsacintosh functions %
imonish8@Monishsacintosh functions % nano call.c
imonish8@Monishsacintosh functions % gcc call.c -o call
call.c:6:51: warning: format specifies type 'int' but the argument has type 'int *' [-Wformat]
printf("The Value inside the ModifyValue is: %i",sum);
~~ ^~~
1 warning generated.
imonish8@Monishsacintosh functions % ./call
Call by Value before Calling the Function: 10The Value inside the ModifyValue is: 1805596188Call by Value demo after Calling the Fun. 20%
imonish8@Monishsacintosh functions %

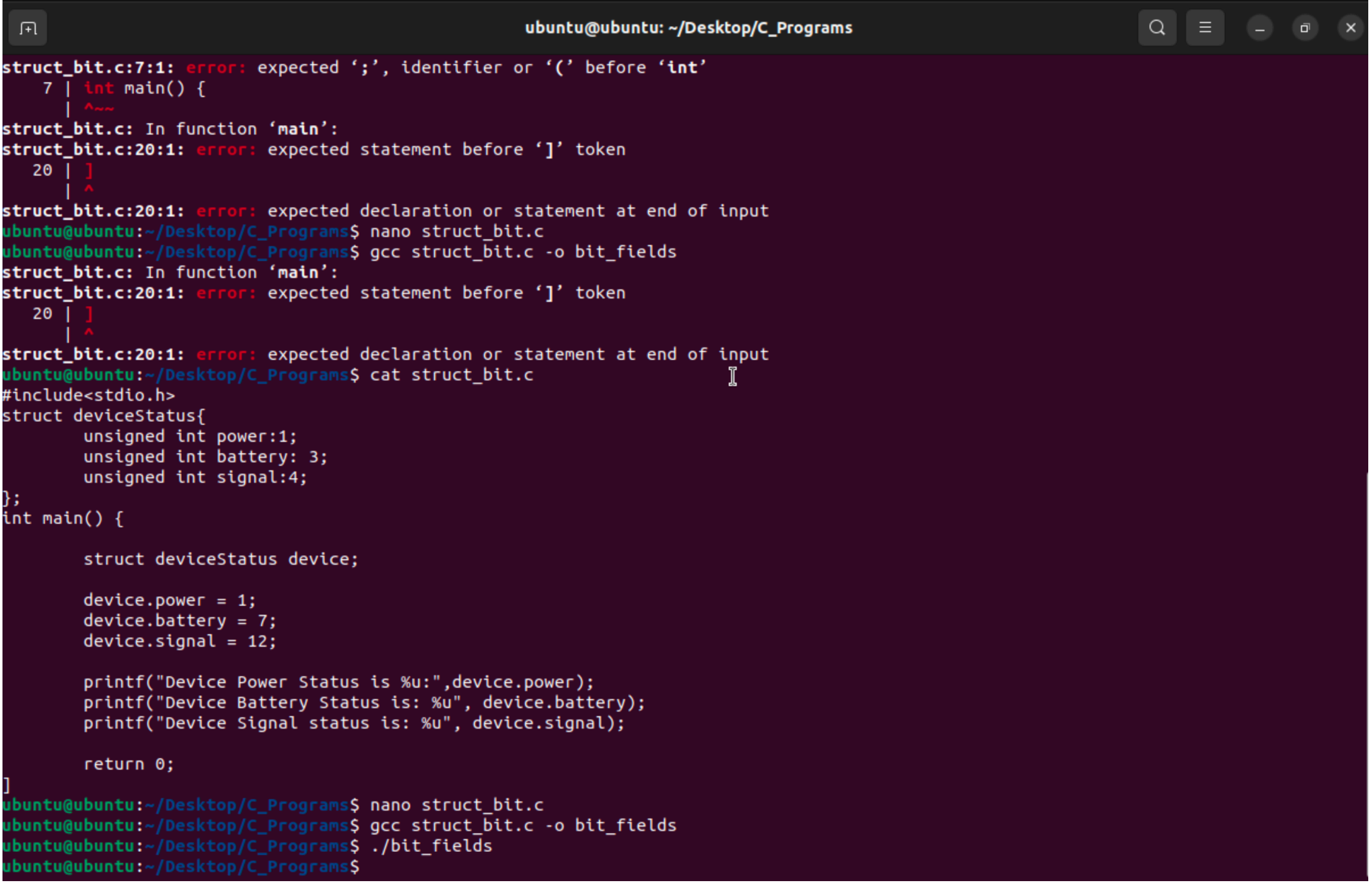

Terminal Shell Edit View Window Help
imonish8@Monishsacintosh functions % nano infra.c
imonish8@Monishsacintosh functions % gcc infra.c -o infra
infra.c:5:13: error: expected expression
return len*;len;
^
infra.c:5:14: warning: expression result unused [-Wunused-value]
return len*;len;
^~~
infra.c:10:10: error: called object type 'int' is not a function or function pointer
return 2(len*wide);
~^
infra.c:17:2: error: call to undeclared function 'print'; ISO C99 and later do not support implicit function declarations [-
print("The Square Area of Infrastructure is: %i",result_sq);
^
infra.c:17:2: did you mean 'printf'?
/Library/Developer/CommandLineTools/SDKs/MacOSX.sdk/usr/include/stdio.h:167:6: 'printf' declared here
int printf(const char * __restrict, ...) __printflike(1, 2);
^
1 warning and 3 errors generated.
imonish8@Monishsacintosh functions % nano infra.c
imonish8@Monishsacintosh functions % gcc infra.c -o infra
imonish8@Monishsacintosh functions % ./infra
The Square Area of Infrastructure is: 1089The rectangular Area is : 1452%
imonish8@Monishsacintosh functions %

```
 Terminal  Shell  Edit  View  Window  Help
imonish8@Monishsacintosh functions % nano fib.c
imonish8@Monishsacintosh functions % gcc fib.c
imonish8@Monishsacintosh functions % gcc fib.c -o fib
imonish8@Monishsacintosh functions % ./fib

 Hello, This is Fibonacci Number Calculator:
 Please enter a number for which you want calculate Fibboncci Series
3

 Fibonacci Series is: 2%
imonish8@Monishsacintosh functions %
imonish8@Monishsacintosh functions % cat fib.c
#include<stdio.h>

int fibo(int n)
{
        if(n == 0)
                return 0;
        else if(n == 1)
                return 1;
        else
                return fibo(n-1)+fibo(n-2);
}

int main()
{
        int num;
        printf("\n Hello, This is Fibonacci Number Calculator:");
        printf("\n Please enter a number for which you want calculate Fibboncci Series");
        scanf("%i",&num);
        int result = fibo(num);
        printf("\n Fibonacci Series is: %d",result);


}
imonish8@Monishsacintosh functions %
```


Terminal Shell Edit View Window Help
imonish8@Monishsacintosh functions % cat infra.c
#include<stdio.h>
int sq_area(int len)
{
return len*len;
}
int rec_area(int len, int wide)
{
return 2*len*wide;
}
int main()
{
int result_sq = sq_area(33);
int result_rec = rec_area(22,33);
printf("The Square Area of Infrastructure is: %i",result_sq);
printf("The rectangular Area is : %i",result_rec);
}
imonish8@Monishsacintosh functions % gcc infra.c -o infra
imonish8@Monishsacintosh functions % ./infra
The Square Area of Infrastructure is: 1089The rectangular Area is : 1452%
imonish8@Monishsacintosh functions %

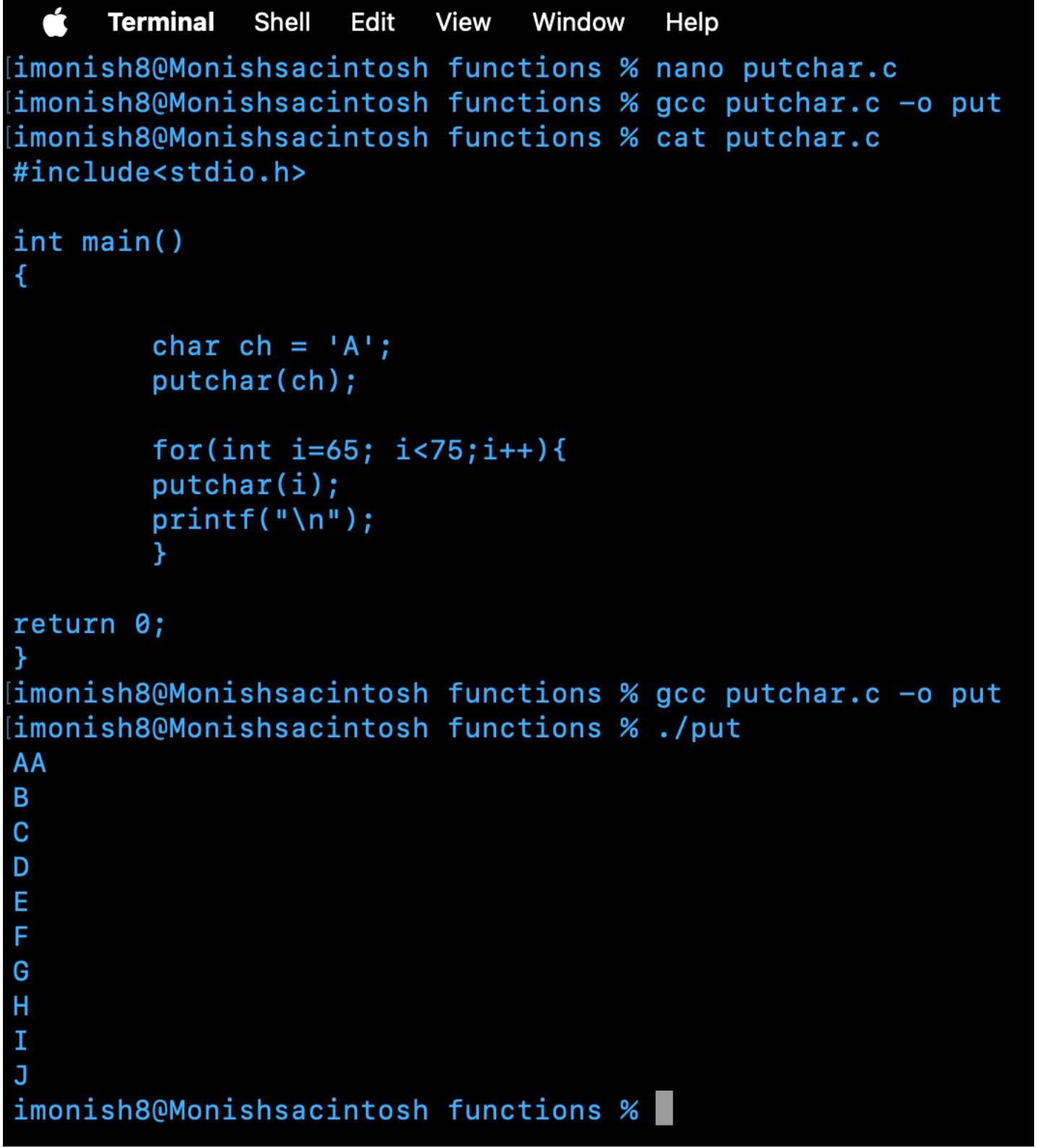
```
imonish8@Monishsacintosh functions % nano inline.c
imonish8@Monishsacintosh functions % gcc inline.c -o in
Undefined symbols for architecture arm64:
  "_square", referenced from:
      _main in inline-41b4bf.o
ld: symbol(s) not found for architecture arm64
clang: error: linker command failed with exit code 1 (use -v to see invocation
imonish8@Monishsacintosh functions % nano inline.c
imonish8@Monishsacintosh functions % gcc inline.c -o in
Undefined symbols for architecture arm64:
  "_square_it", referenced from:
      _main in inline-a23491.o
ld: symbol(s) not found for architecture arm64
clang: error: linker command failed with exit code 1 (use -v to see invocation
imonish8@Monishsacintosh functions % ./in
zsh: no such file or directory: ./in
imonish8@Monishsacintosh functions %
```

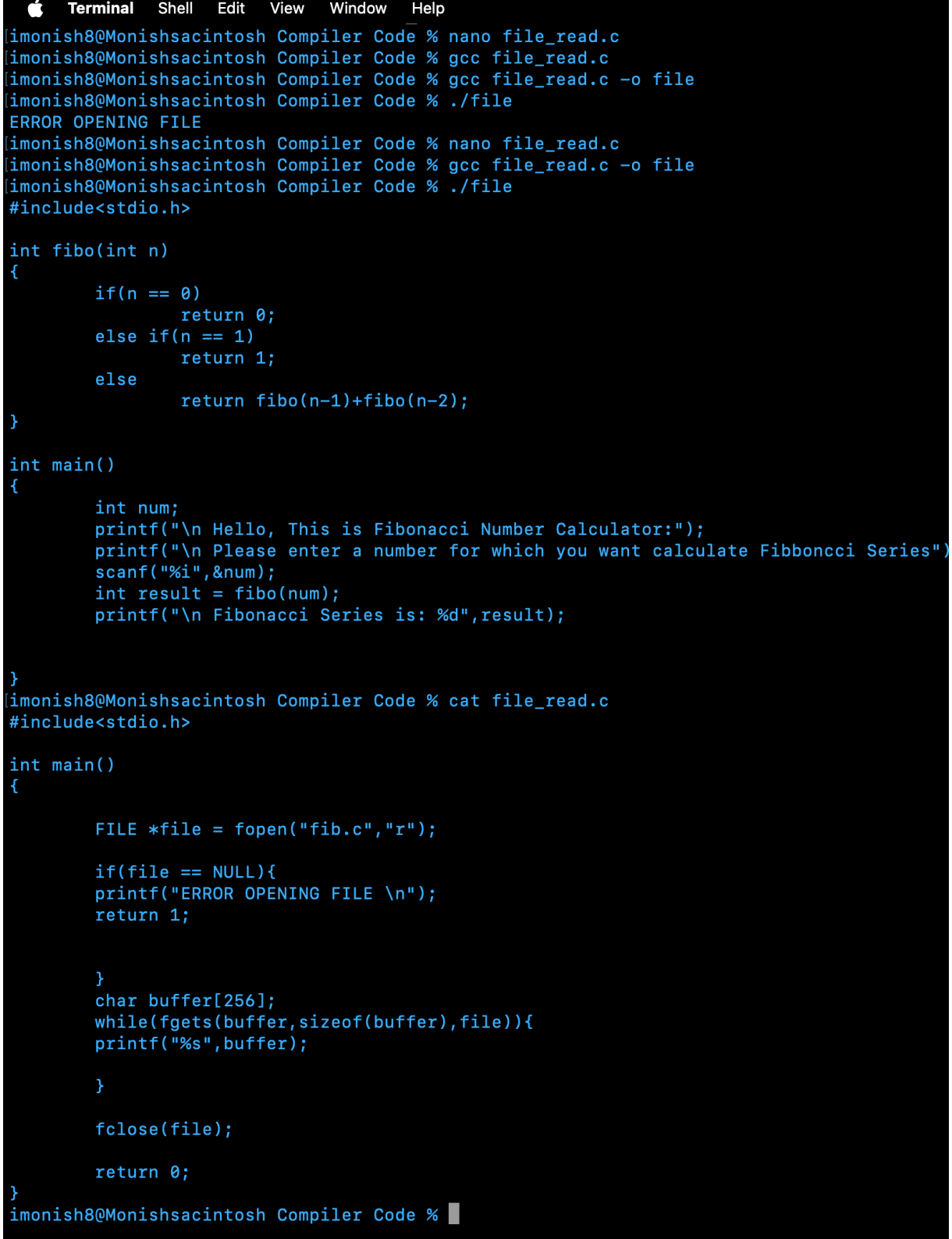
STRUCTURES & UNIONS.


ubuntu@ubuntu: ~/Desktop/C_Programs
struct_bit.c:7:1: error: expected ';', identifier or '(' before 'int'
7 | int main() {
| ^~~
struct_bit.c: In function 'main':
struct_bit.c:20:1: error: expected statement before ']' token
20 |]
| ^
struct_bit.c:20:1: error: expected declaration or statement at end of input
ubuntu@ubuntu:~/Desktop/C_Programs$ nano struct_bit.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc struct_bit.c -o bit_fields
struct_bit.c: In function 'main':
struct_bit.c:20:1: error: expected statement before ']' token
20 |]
| ^
struct_bit.c:20:1: error: expected declaration or statement at end of input
ubuntu@ubuntu:~/Desktop/C_Programs$ cat struct_bit.c
#include<stdio.h>
struct deviceStatus{
unsigned int power:1;
unsigned int battery: 3;
unsigned int signal:4;
};
int main() {
struct deviceStatus device;
device.power = 1;
device.battery = 7;
device.signal = 12;
printf("Device Power Status is %u:",device.power);
printf("Device Battery Status is: %u", device.battery);
printf("Device Signal status is: %u", device.signal);
return 0;
]
ubuntu@ubuntu:~/Desktop/C_Programs$ nano struct_bit.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc struct_bit.c -o bit_fields
ubuntu@ubuntu:~/Desktop/C_Programs$ ./bit_fields
ubuntu@ubuntu:~/Desktop/C_Programs$

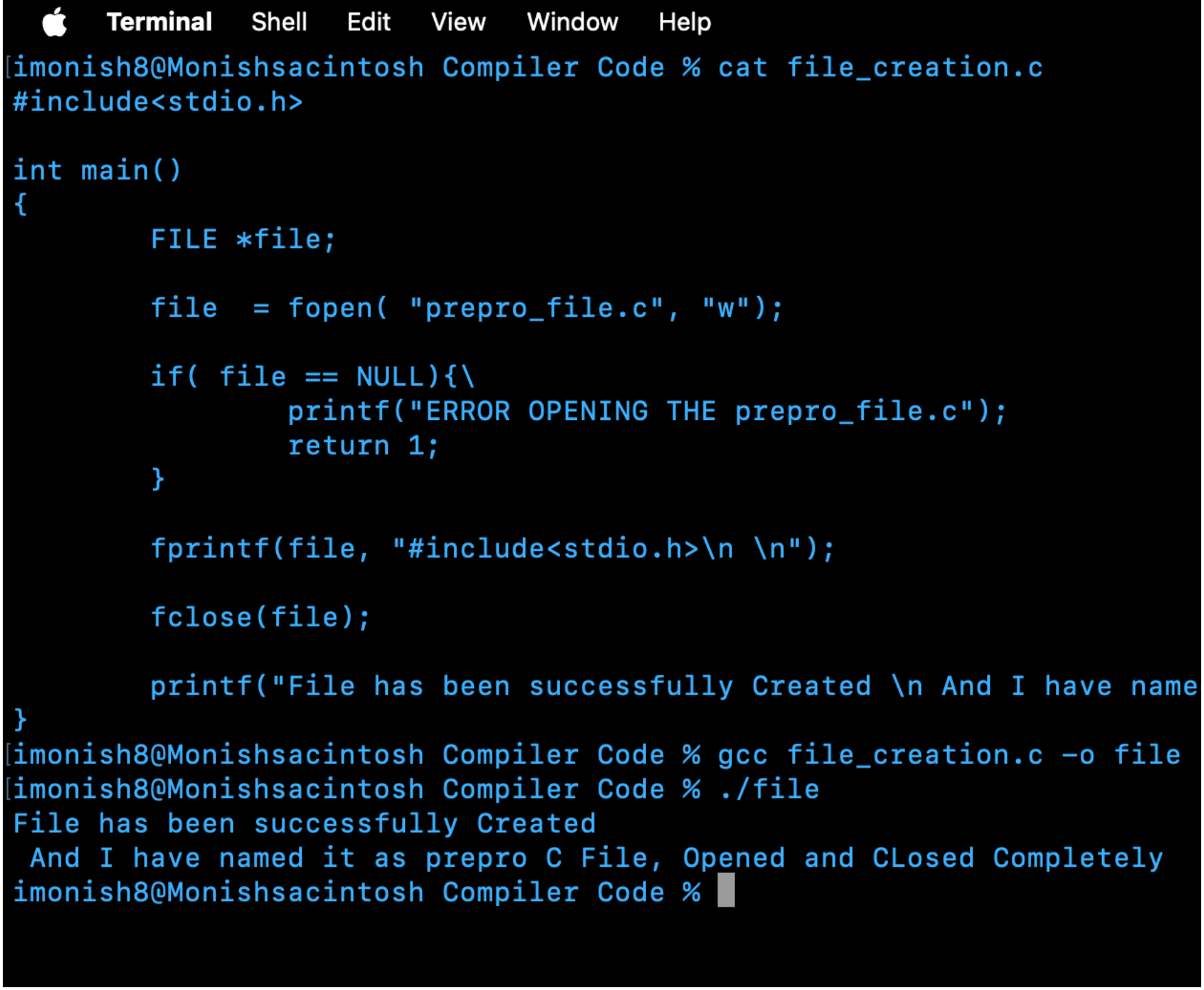
```
Terminal  Shell  Edit  View  Window  Help
imonish8@Monishsacintosh functions % cat struct_unions.c
#include<stdio.h>

struct struct_values
{
        char character;
        int integer;
        double decimal;
};
union union_values
{
        char character;
        int integer;
        double decimal;
};
int main()
{
        struct struct_values structExample;
        structExample.character = 'S';
        structExample.integer = 22;
        structExample.decimal = 20.22;

        printf("\n Character: %c",structExample.character);
        printf("\n The Model is: %i",structExample.integer);
        printf("\n The price is: %.2f",structExample.decimal);

        union union_values myUni;
        myUni.character = 'U';
        printf("\n Union Character is : %c",myUni.character);
        myUni.integer = 88;
        printf("\n Union Integer is: %i",myUni.integer);
        myUni.decimal = 22.20;
        printf("\n Decimal is : %.2f",myUni.decimal);

        printf("Now Key Diff is here, printing intial character value after assingment of two varibales in the same meomory location is here: %c",my



}
imonish8@Monishsacintosh functions % gcc struct_unions.c -o uni
imonish8@Monishsacintosh functions % ./uni

 Character: S
 The Model is: 22
 The price is: 20.22
 Union Character is : U
 Union Integer is: 88
 Decimal is : 22.20Now Key Diff is here, printing intial character value after assingment of two varibales in the same meomory location is here: 3%
imonish8@Monishsacintosh functions %
```

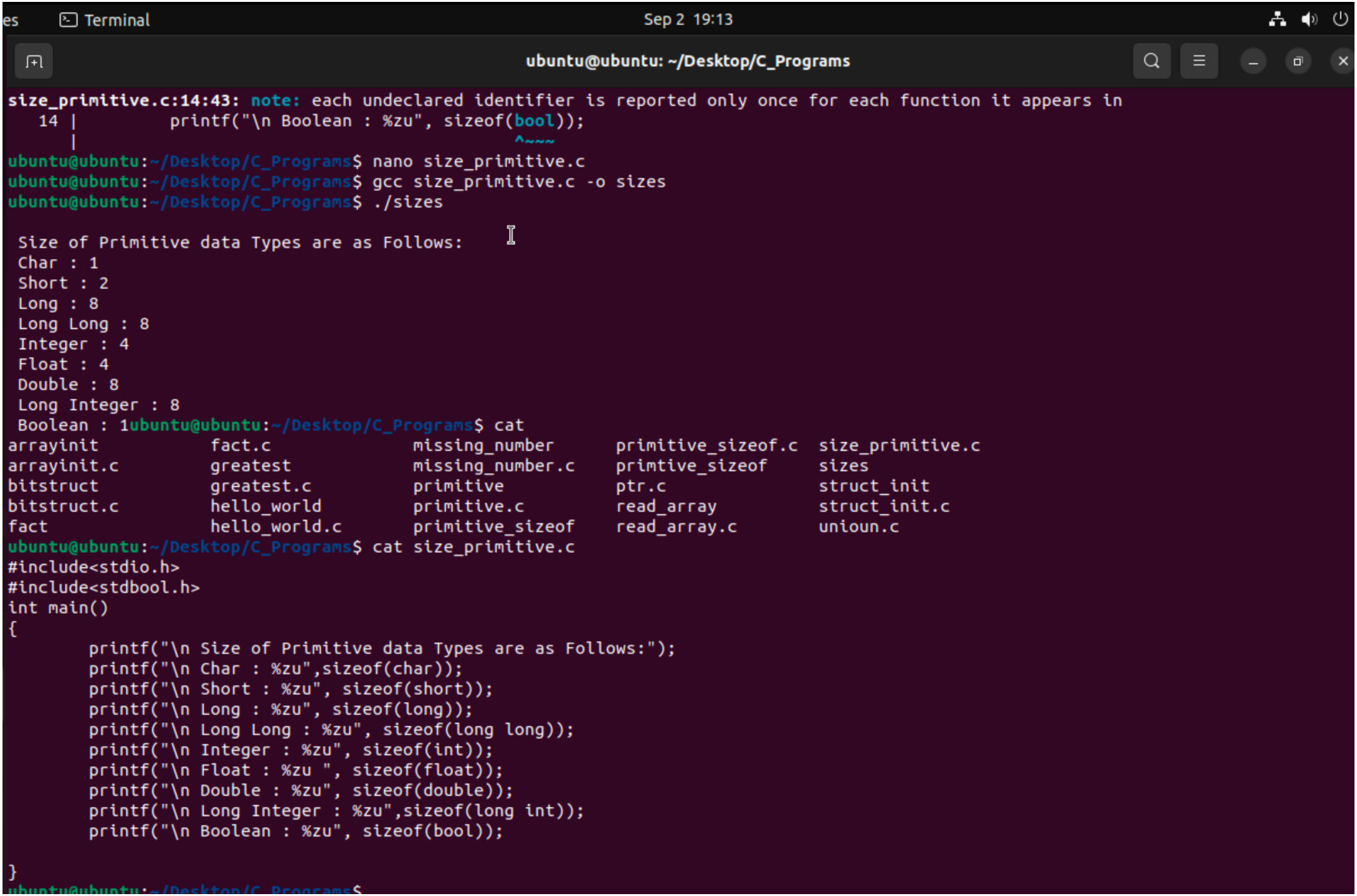
FILE I/O

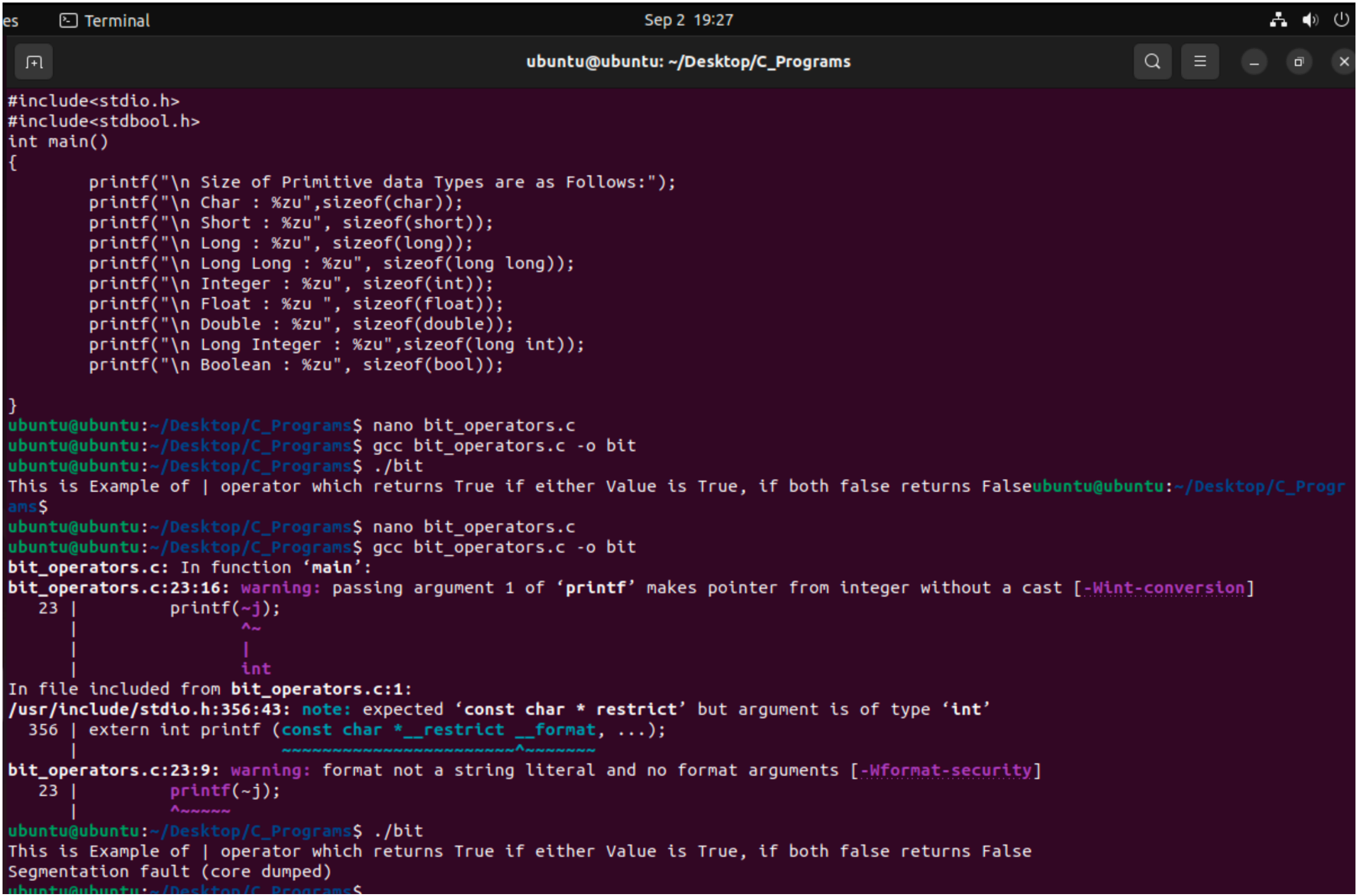

Terminal Shell Edit View Window Help
imonish8@Monishsacintosh functions % nano putchar.c
imonish8@Monishsacintosh functions % gcc putchar.c -o put
imonish8@Monishsacintosh functions % cat putchar.c
#include<stdio.h>
int main()
{
char ch = 'A';
putchar(ch);
for(int i=65; i<75;i++){
putchar(i);
printf("\n");
}
return 0;
}
imonish8@Monishsacintosh functions % gcc putchar.c -o put
imonish8@Monishsacintosh functions % ./put
AA
B
C
D
E
F
G
H
I
J
imonish8@Monishsacintosh functions %

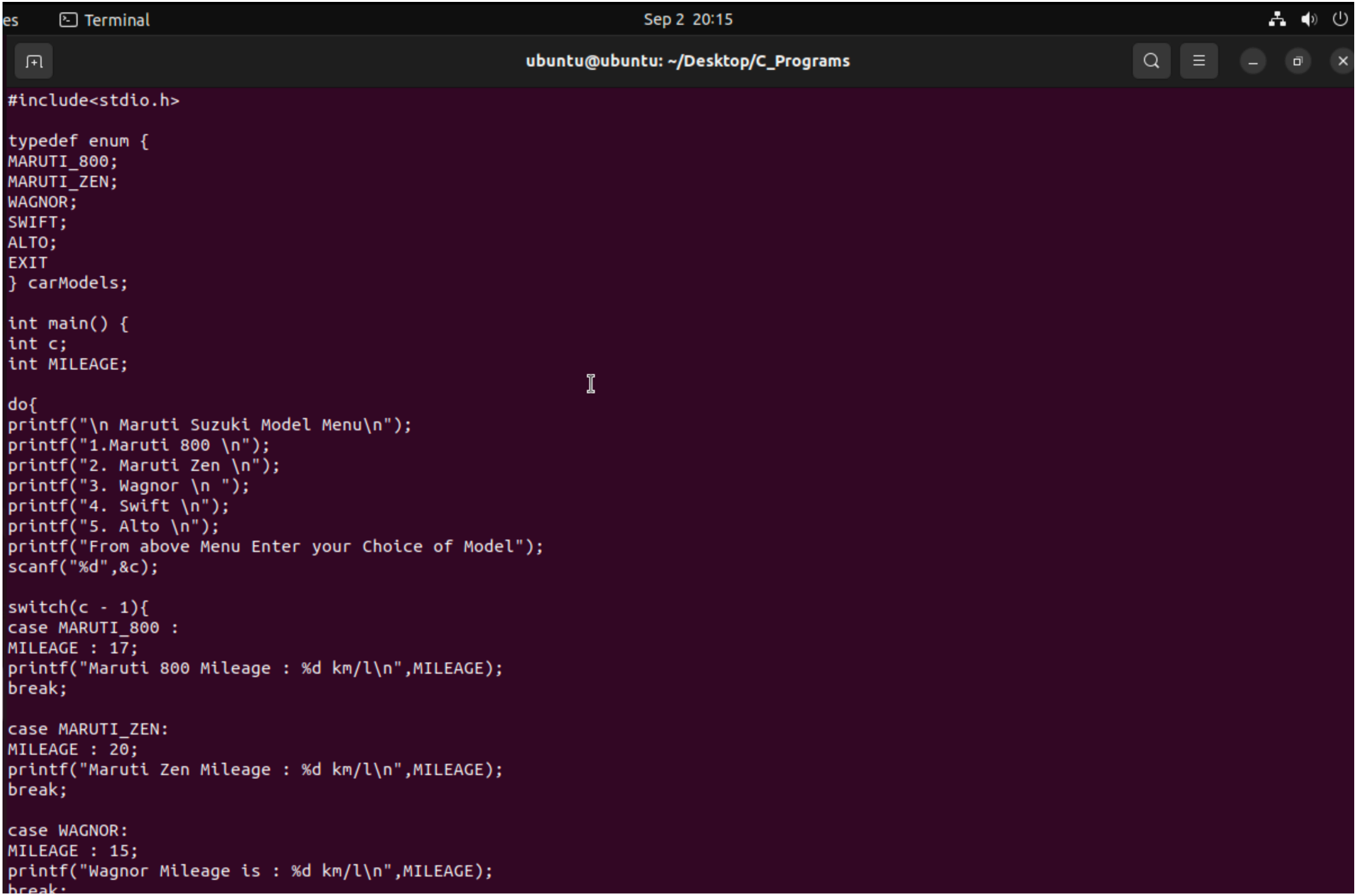


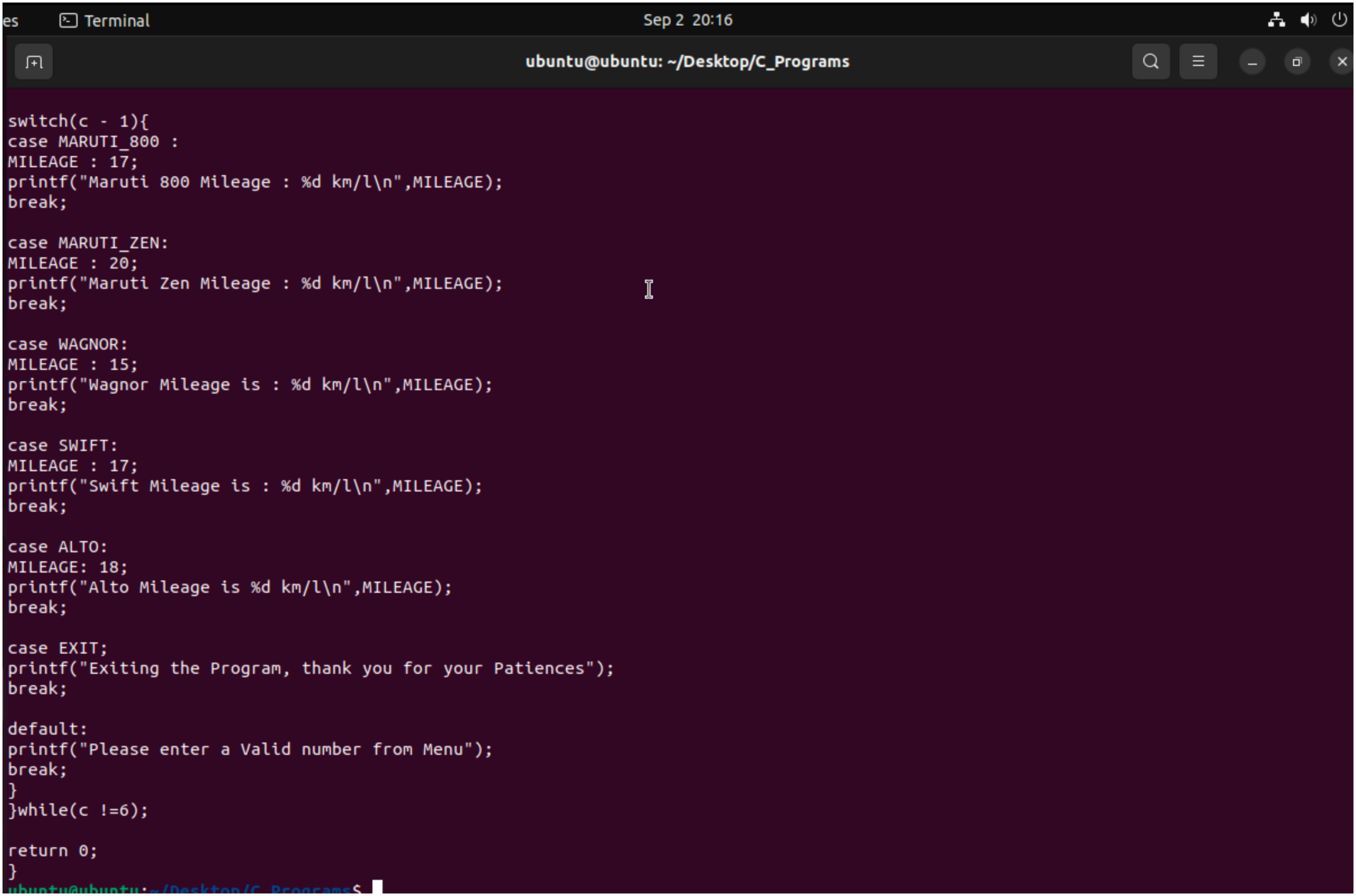
```
Terminal  Shell  Edit  View  Window  Help
imonish8@Monishsacintosh Compiler Code % nano file_read.c
imonish8@Monishsacintosh Compiler Code % gcc file_read.c
imonish8@Monishsacintosh Compiler Code % gcc file_read.c -o file
imonish8@Monishsacintosh Compiler Code % ./file
ERROR OPENING FILE
imonish8@Monishsacintosh Compiler Code % nano file_read.c
imonish8@Monishsacintosh Compiler Code % gcc file_read.c -o file
imonish8@Monishsacintosh Compiler Code % ./file
#include<stdio.h>

int fibo(int n)
{
        if(n == 0)
                return 0;
        else if(n == 1)
                return 1;
        else
                return fibo(n-1)+fibo(n-2);
}

int main()
{
        int num;
        printf("\n Hello, This is Fibonacci Number Calculator:");
        printf("\n Please enter a number for which you want calculate Fibboncci Series")
        scanf("%i",&num);
        int result = fibo(num);
        printf("\n Fibonacci Series is: %d",result);


}
imonish8@Monishsacintosh Compiler Code % cat file_read.c
#include<stdio.h>

int main()
{

        FILE *file = fopen("fib.c","r");

        if(file == NULL){
        printf("ERROR OPENING FILE \n");
        return 1;


        }
        char buffer[256];
        while(fgets(buffer,sizeof(buffer),file)){
        printf("%s",buffer);

        }

        fclose(file);

        return 0;
}
imonish8@Monishsacintosh Compiler Code %
```


Terminal Shell Edit View Window Help
imonish8@Monishsacintosh Compiler Code % cat file_creation.c
#include<stdio.h>
int main()
{
FILE *file;
file = fopen("prepro_file.c", "w");
if(file == NULL){\
printf("ERROR OPENING THE prepro_file.c");
return 1;
}
fprintf(file, "#include<stdio.h>\n \n");
fclose(file);
printf("File has been successfully Created \n And I have name
}
imonish8@Monishsacintosh Compiler Code % gcc file_creation.c -o file
imonish8@Monishsacintosh Compiler Code % ./file
File has been successfully Created
And I have named it as prepro C File, Opened and CLosed Completely
imonish8@Monishsacintosh Compiler Code %


es
Terminal
Sep 2 19:13
ubuntu@ubuntu: ~/Desktop/C_Programs
size_primitive.c:14:43: note: each undeclared identifier is reported only once for each function it appears in
14 | printf("\n Boolean : %zu", sizeof(bool));
| ^~~~
ubuntu@ubuntu:~/Desktop/C_Programs$ nano size_primitive.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc size_primitive.c -o sizes
ubuntu@ubuntu:~/Desktop/C_Programs$ ./sizes
Size of Primitive data Types are as Follows:
Char : 1
Short : 2
Long : 8
Long Long : 8
Integer : 4
Float : 4
Double : 8
Long Integer : 8
Boolean : 1ubuntu@ubuntu:~/Desktop/C_Programs$ cat
arrayinit fact.c missing_number primitive_sizeof.c size_primitive.c
arrayinit.c greatest missing_number.c primtive_sizeof sizes
bitstruct greatest.c primitive ptr.c struct_init
bitstruct.c hello_world primitive.c read_array struct_init.c
fact hello_world.c primitive_sizeof read_array.c unioun.c
ubuntu@ubuntu:~/Desktop/C_Programs$ cat size_primitive.c
#include<stdio.h>
#include<stdbool.h>
int main()
{
printf("\n Size of Primitive data Types are as Follows:");
printf("\n Char : %zu",sizeof(char));
printf("\n Short : %zu", sizeof(short));
printf("\n Long : %zu", sizeof(long));
printf("\n Long Long : %zu", sizeof(long long));
printf("\n Integer : %zu", sizeof(int));
printf("\n Float : %zu ", sizeof(float));
printf("\n Double : %zu", sizeof(double));
printf("\n Long Integer : %zu",sizeof(long int));
printf("\n Boolean : %zu", sizeof(bool));
}


es
Terminal
Sep 2 19:27
ubuntu@ubuntu: ~/Desktop/C_Programs
#include<stdio.h>
#include<stdbool.h>
int main()
{
printf("\n Size of Primitive data Types are as Follows:");
printf("\n Char : %zu",sizeof(char));
printf("\n Short : %zu", sizeof(short));
printf("\n Long : %zu", sizeof(long));
printf("\n Long Long : %zu", sizeof(long long));
printf("\n Integer : %zu", sizeof(int));
printf("\n Float : %zu ", sizeof(float));
printf("\n Double : %zu", sizeof(double));
printf("\n Long Integer : %zu",sizeof(long int));
printf("\n Boolean : %zu", sizeof(bool));
}
ubuntu@ubuntu:~/Desktop/C_Programs$ nano bit_operators.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc bit_operators.c -o bit
ubuntu@ubuntu:~/Desktop/C_Programs$ ./bit
This is Example of | operator which returns True if either Value is True, if both false returns Falseubuntu@ubuntu:~/Desktop/C_Progr
ams$
ubuntu@ubuntu:~/Desktop/C_Programs$ nano bit_operators.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc bit_operators.c -o bit
bit_operators.c: In function ‘main’:
bit_operators.c:23:16: warning: passing argument 1 of ‘printf’ makes pointer from integer without a cast [-Wint-conversion]
23 | printf(~j);
| ^~
| |
| int
In file included from bit_operators.c:1:
/usr/include/stdio.h:356:43: note: expected ‘const char * restrict’ but argument is of type ‘int’
356 | extern int printf (const char *__restrict __format, ...);
| ~~~~~~~~~~~~~~~~~~~~~~~~^~~~~~~~
bit_operators.c:23:9: warning: format not a string literal and no format arguments [-Wformat-security]
23 | printf(~j);
| ^~~~~~
ubuntu@ubuntu:~/Desktop/C_Programs$ ./bit
This is Example of | operator which returns True if either Value is True, if both false returns False
Segmentation fault (core dumped)

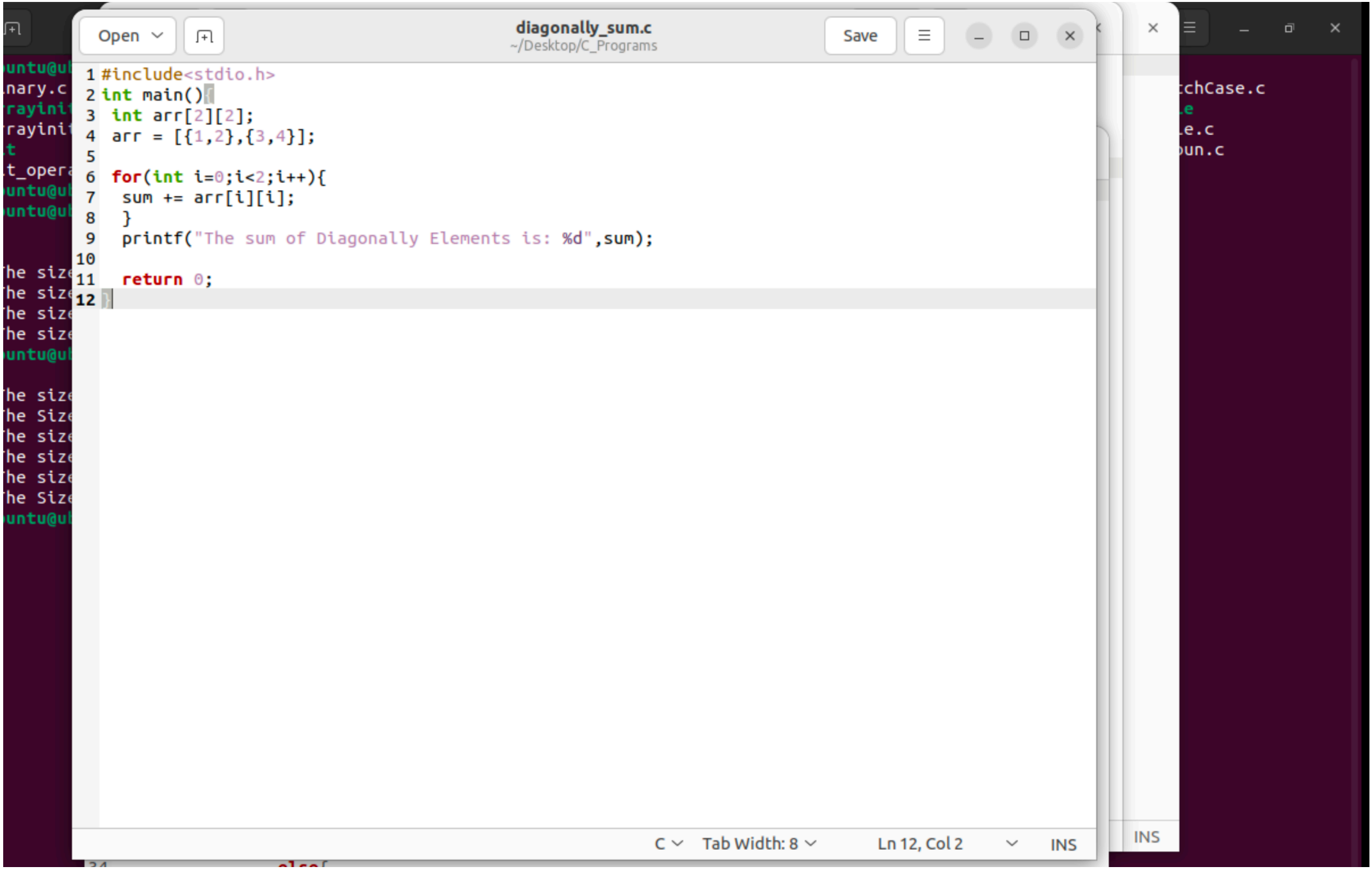

es
Terminal
Sep 2 20:15
ubuntu@ubuntu: ~/Desktop/C_Programs
#include<stdio.h>
typedef enum {
MARUTI_800;
MARUTI_ZEN;
WAGNOR;
SWIFT;
ALTO;
EXIT
} carModels;
int main() {
int c;
int MILEAGE;
do{
printf("\n Maruti Suzuki Model Menu\n");
printf("1.Maruti 800 \n");
printf("2. Maruti Zen \n");
printf("3. Wagnor \n ");
printf("4. Swift \n");
printf("5. Alto \n");
printf("From above Menu Enter your Choice of Model");
scanf("%d",&c);
switch(c - 1){
case MARUTI_800 :
MILEAGE : 17;
printf("Maruti 800 Mileage : %d km/l\n",MILEAGE);
break;
case MARUTI_ZEN:
MILEAGE : 20;
printf("Maruti Zen Mileage : %d km/l\n",MILEAGE);
break;
case WAGNOR:
MILEAGE : 15;
printf("Wagnor Mileage is : %d km/l\n",MILEAGE);


es
Terminal
Sep 2 20:16
ubuntu@ubuntu: ~/Desktop/C_Programs
switch(c - 1){
case MARUTI_800 :
MILEAGE : 17;
printf("Maruti 800 Mileage : %d km/l\n",MILEAGE);
break;
case MARUTI_ZEN:
MILEAGE : 20;
printf("Maruti Zen Mileage : %d km/l\n",MILEAGE);
break;
case WAGNOR:
MILEAGE : 15;
printf("Wagnor Mileage is : %d km/l\n",MILEAGE);
break;
case SWIFT:
MILEAGE : 17;
printf("Swift Mileage is : %d km/l\n",MILEAGE);
break;
case ALTO:
MILEAGE: 18;
printf("Alto Mileage is %d km/l\n",MILEAGE);
break;
case EXIT;
printf("Exiting the Program, thank you for your Patiences");
break;
default:
printf("Please enter a Valid number from Menu");
break;
}
}while(c !=6);
return 0;
}

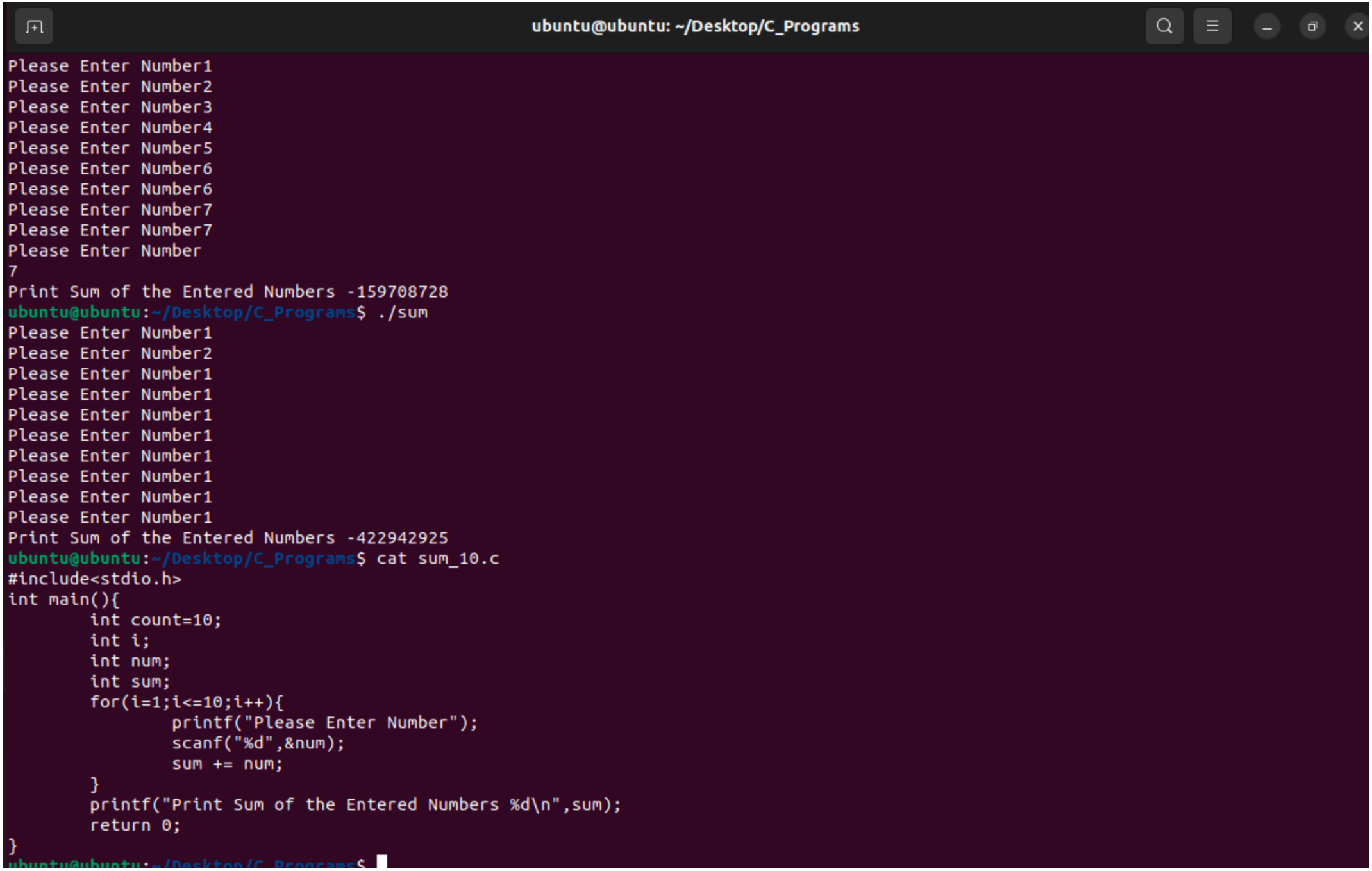
Open

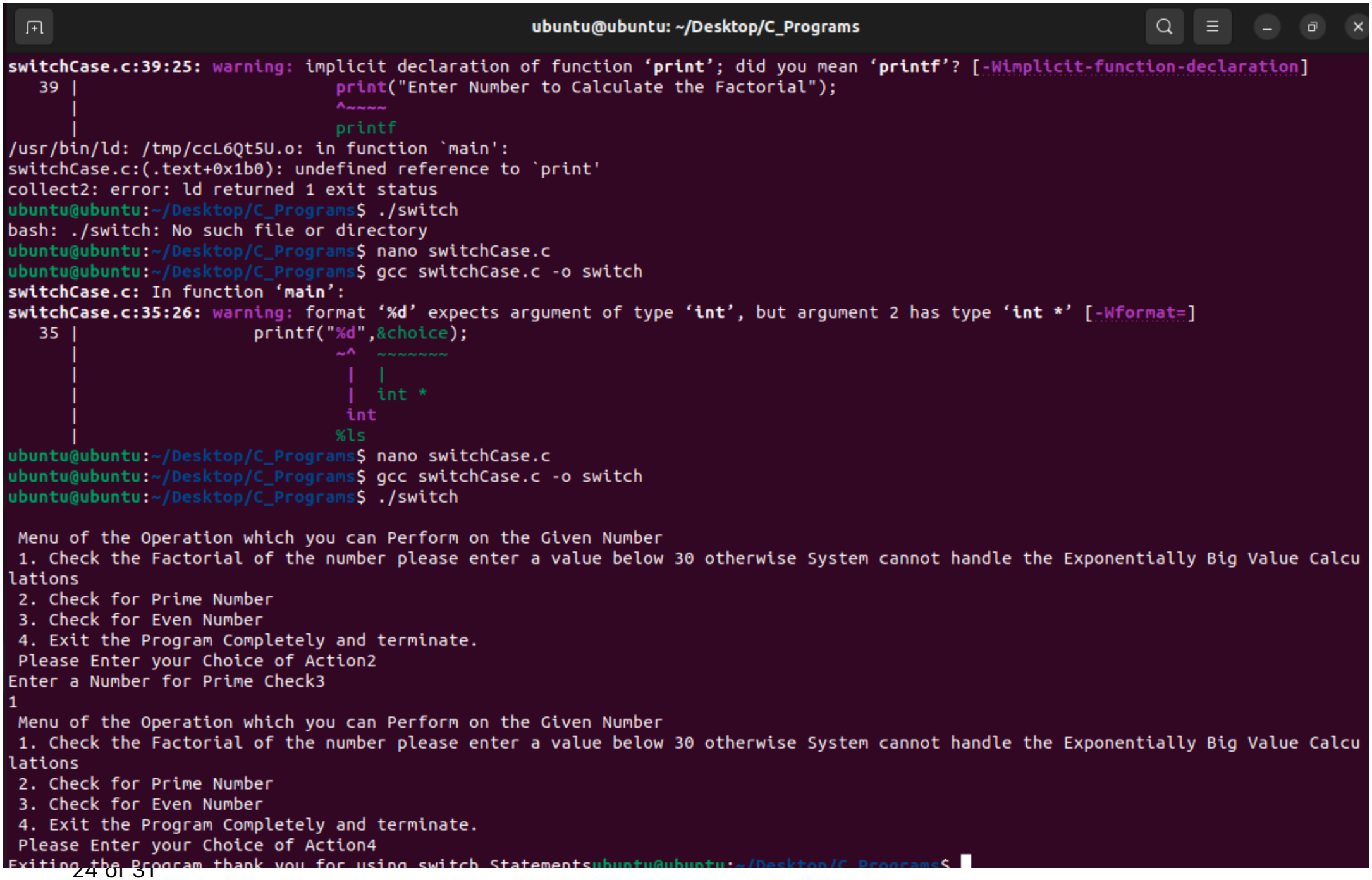
Matrix_2.c
~/Desktop/C_Programs

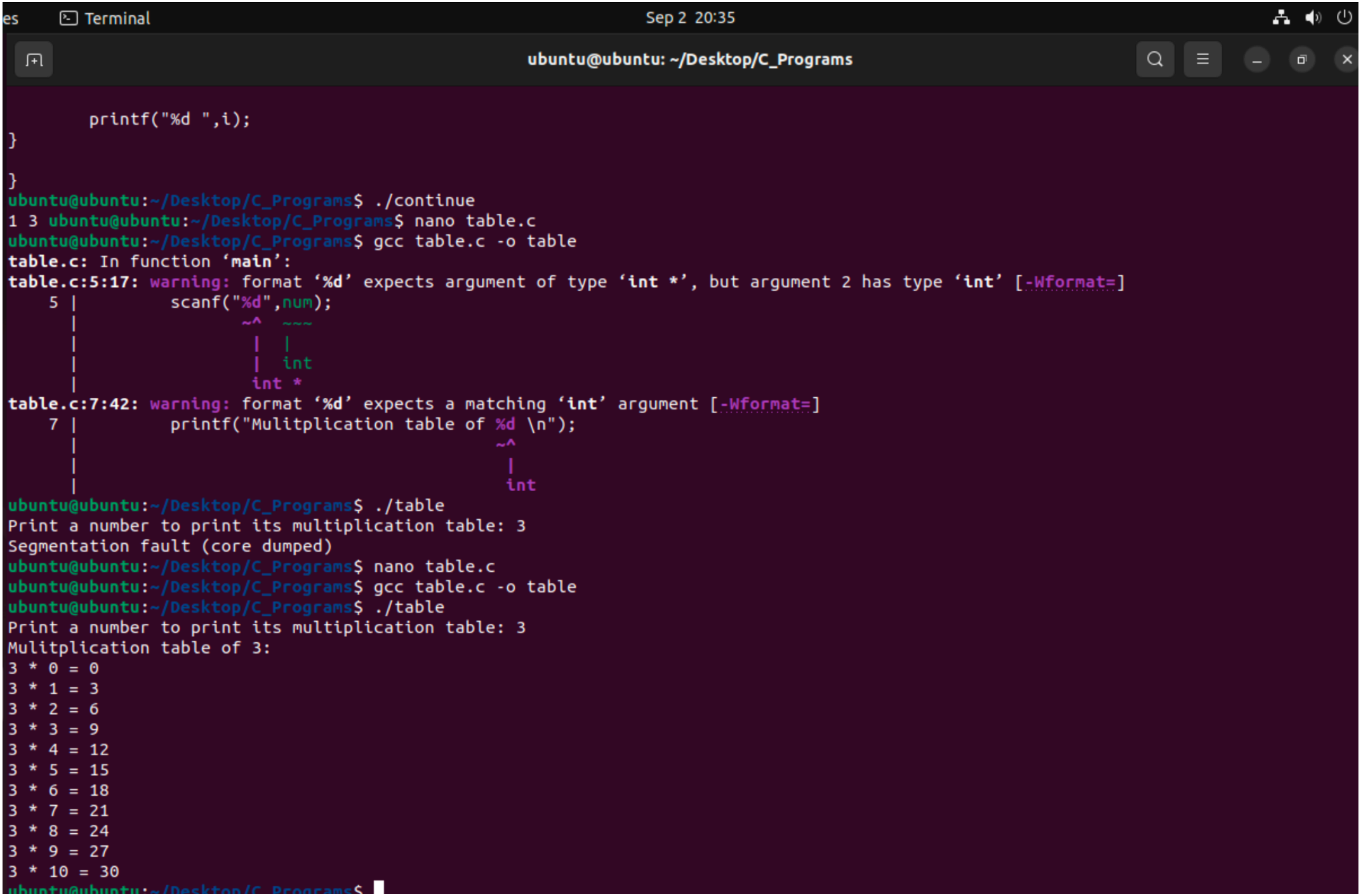
```c
#include<stdio.h>

int main() {
        int a[2][2] = [{1,2},{3,5}];
        int b[2][2] = [{3,5},{4,7}];
        int result[2][2] = 0;

        for(int i=0;i<2;i++){
                for(int j=0;j<2;j++){
                        for(int k =0;k<2;k++){
                                result[i][j] += a[i][k] * b[k][j];
                        }
                }
        }

        printf("Matrix Multiplication Result:");
        for(int i=0;i<2; i++){
                for(int j=0;j<2;j++){
                printf("%d", result[i][j]);
                }
                printf(" \n");
        }
}
```

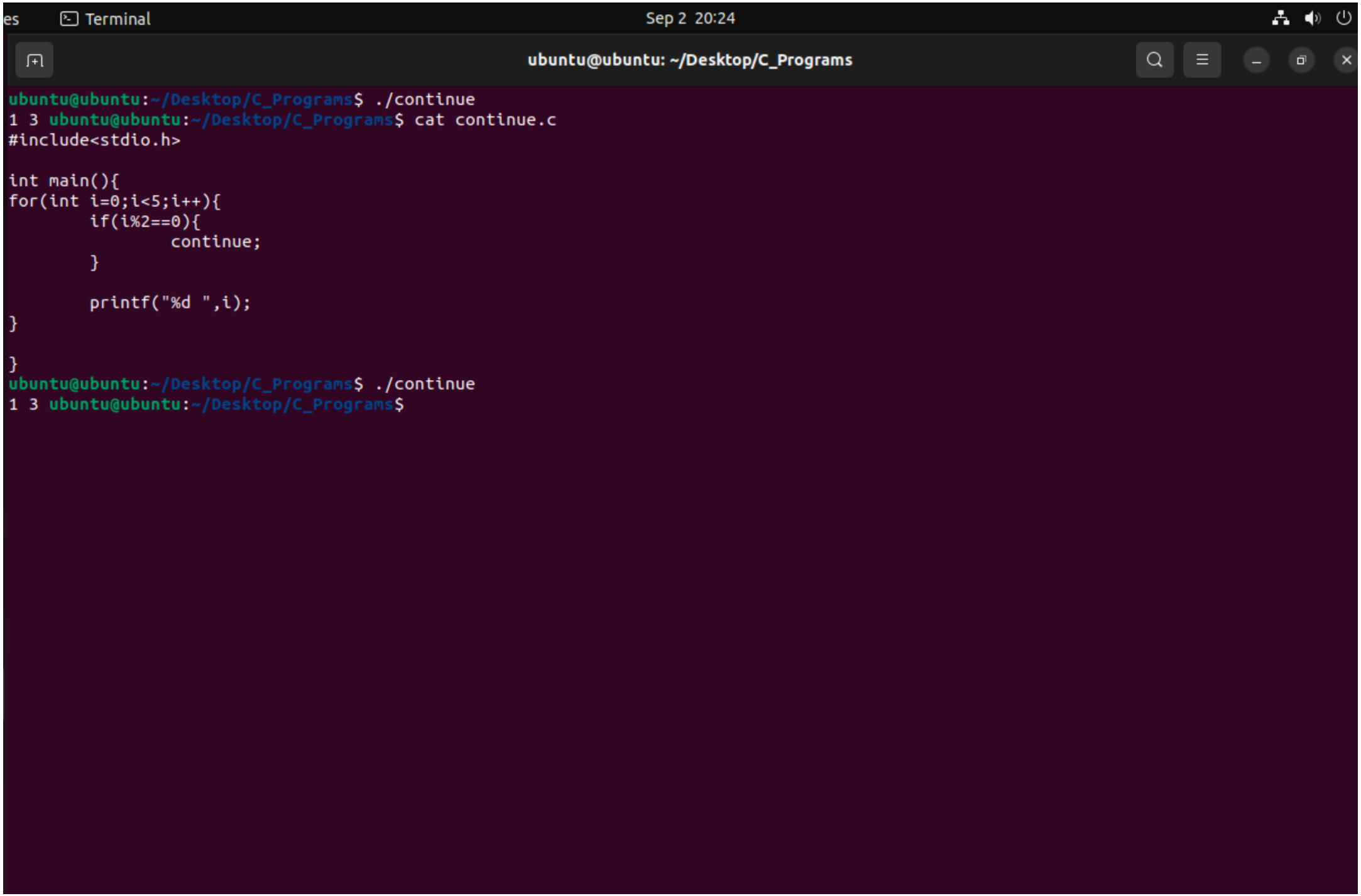

Open
diagonally_sum.c
~/Desktop/C_Programs
Save
1 #include<stdio.h>
2 int main(){
3 int arr[2][2];
4 arr = [{1,2},{3,4}];
5
6 for(int i=0;i<2;i++){
7 sum += arr[i][i];
8 }
9 printf("The sum of Diagonally Elements is: %d",sum);
10
11 return 0;
12 }
C
Tab Width: 8
Ln 12, Col 2
INS

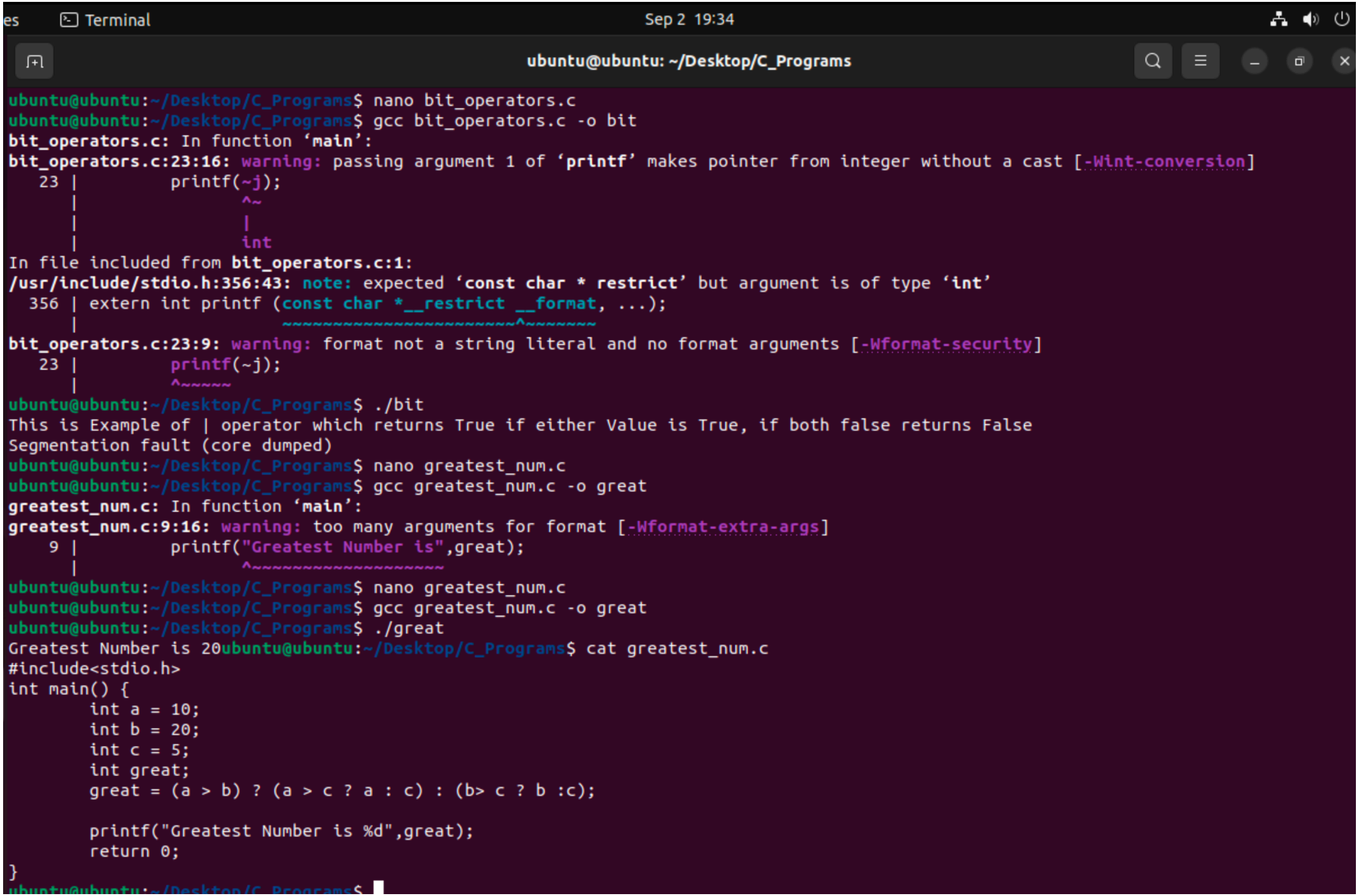
Basics

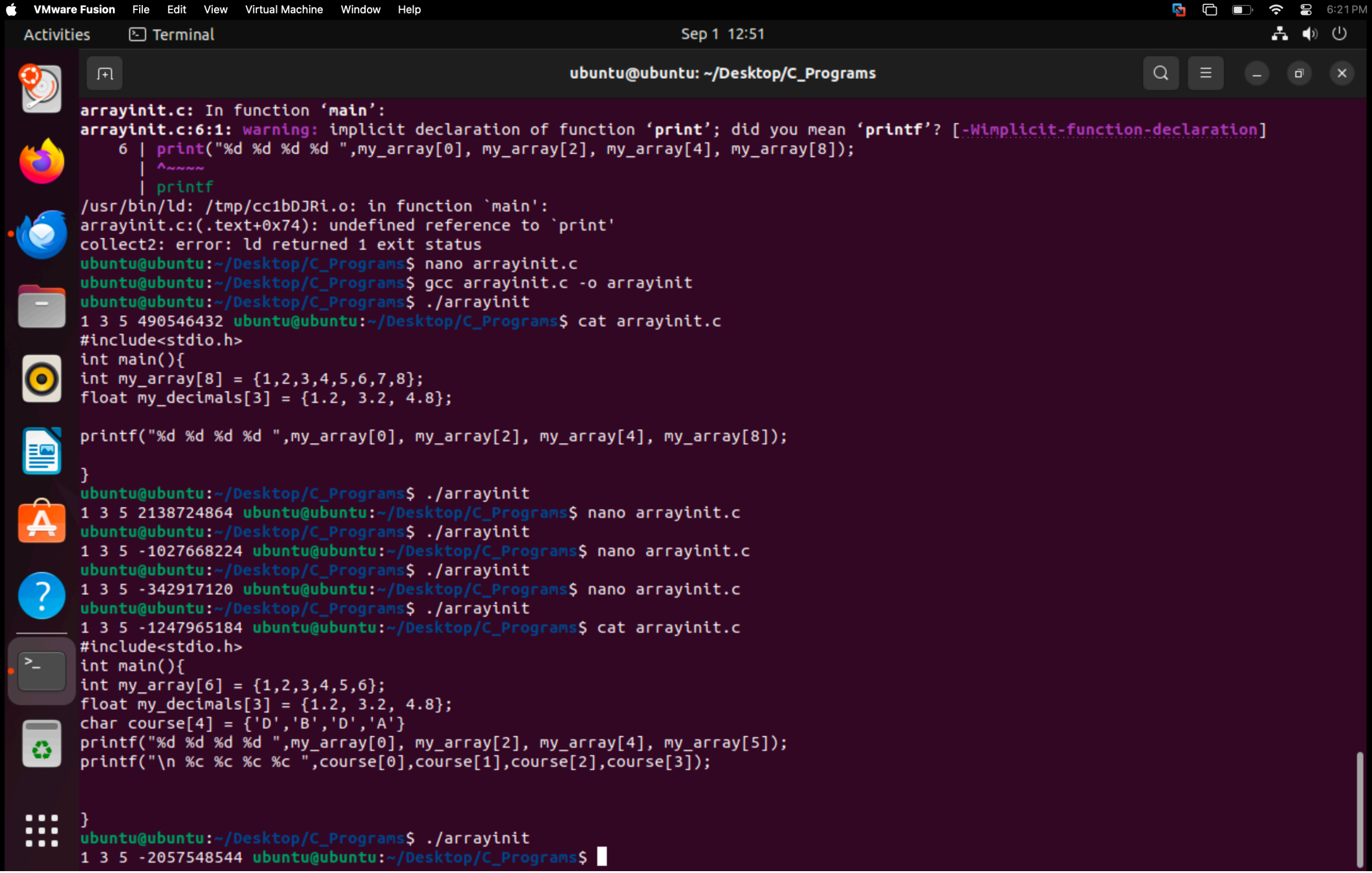

ubuntu@ubuntu: ~/Desktop/C_Programs
Please Enter Number1
Please Enter Number2
Please Enter Number3
Please Enter Number4
Please Enter Number5
Please Enter Number6
Please Enter Number6
Please Enter Number7
Please Enter Number7
Please Enter Number
7
Print Sum of the Entered Numbers -159708728
ubuntu@ubuntu:~/Desktop/C_Programs$ ./sum
Please Enter Number1
Please Enter Number2
Please Enter Number1
Please Enter Number1
Please Enter Number1
Please Enter Number1
Please Enter Number1
Please Enter Number1
Please Enter Number1
Please Enter Number1
Print Sum of the Entered Numbers -422942925
ubuntu@ubuntu:~/Desktop/C_Programs$ cat sum_10.c
#include<stdio.h>
int main(){
int count=10;
int i;
int num;
int sum;
for(i=1;i<=10;i++){
printf("Please Enter Number");
scanf("%d",&num);
sum += num;
}
printf("Print Sum of the Entered Numbers %d\n",sum);
return 0;
}

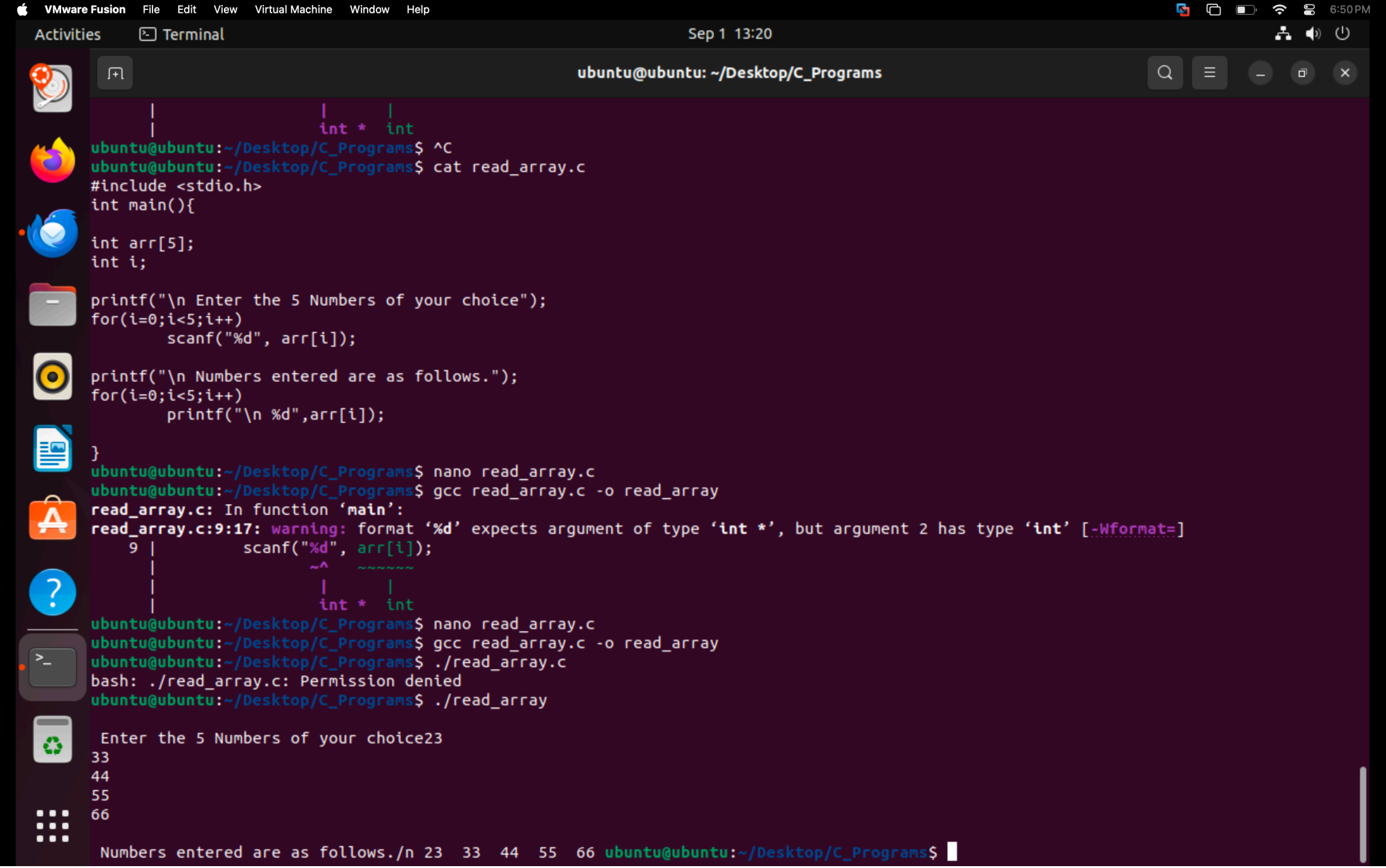

ubuntu@ubuntu: ~/Desktop/C_Programs
switchCase.c:39:25: warning: implicit declaration of function ‘print’; did you mean ‘printf’? [-Wimplicit-function-declaration]
39 | print("Enter Number to Calculate the Factorial");
| ^~~~~
| printf
/usr/bin/ld: /tmp/ccL6Qt5U.o: in function `main':
switchCase.c:(.text+0x1b0): undefined reference to `print'
collect2: error: ld returned 1 exit status
ubuntu@ubuntu:~/Desktop/C_Programs$ ./switch
bash: ./switch: No such file or directory
ubuntu@ubuntu:~/Desktop/C_Programs$ nano switchCase.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc switchCase.c -o switch
switchCase.c: In function ‘main’:
switchCase.c:35:26: warning: format ‘%d’ expects argument of type ‘int’, but argument 2 has type ‘int *’ [-Wformat=]
35 | printf("%d",&choice);
| ~^ ~~~~~~~
| | |
| | int *
| int
| %ls
ubuntu@ubuntu:~/Desktop/C_Programs$ nano switchCase.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc switchCase.c -o switch
ubuntu@ubuntu:~/Desktop/C_Programs$ ./switch
Menu of the Operation which you can Perform on the Given Number
1. Check the Factorial of the number please enter a value below 30 otherwise System cannot handle the Exponentially Big Value Calculations
2. Check for Prime Number
3. Check for Even Number
4. Exit the Program Completely and terminate.
Please Enter your Choice of Action2
Enter a Number for Prime Check3
1
Menu of the Operation which you can Perform on the Given Number
1. Check the Factorial of the number please enter a value below 30 otherwise System cannot handle the Exponentially Big Value Calculations
2. Check for Prime Number
3. Check for Even Number
4. Exit the Program Completely and terminate.
Please Enter your Choice of Action4
Exiting the Program thank you for using switch Statements

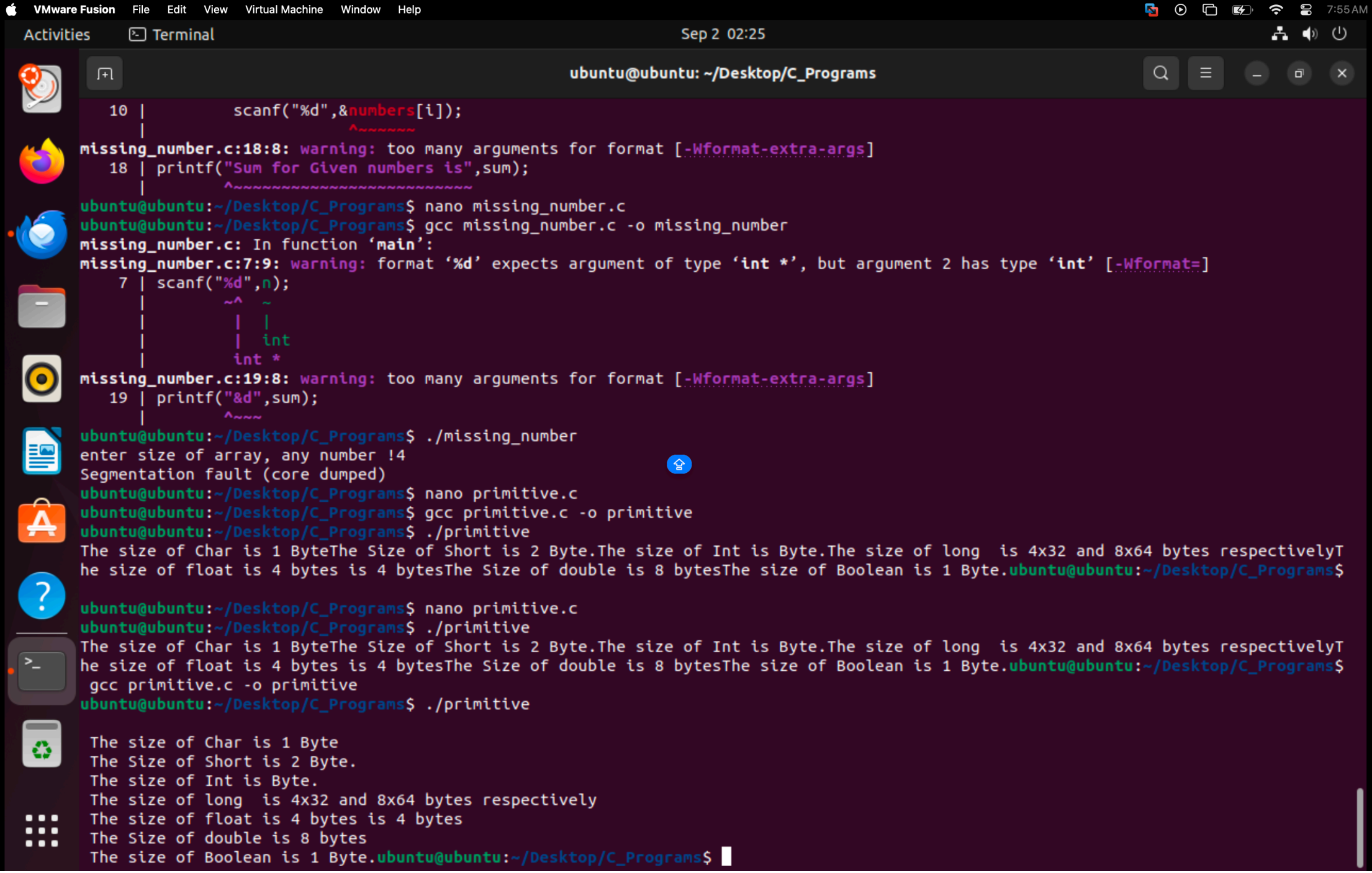

es
Terminal
Sep 2 20:35
ubuntu@ubuntu: ~/Desktop/C_Programs
printf("%d ",i);
}
}
ubuntu@ubuntu:~/Desktop/C_Programs$ ./continue
1 3 ubuntu@ubuntu:~/Desktop/C_Programs$ nano table.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc table.c -o table
table.c: In function ‘main’:
table.c:5:17: warning: format ‘%d’ expects argument of type ‘int *’, but argument 2 has type ‘int’ [-Wformat=]
5 | scanf("%d",num);
~^ ~~~
| |
| int
int *
table.c:7:42: warning: format ‘%d’ expects a matching ‘int’ argument [-Wformat=]
7 | printf("Mulitplication table of %d \n");
~^
|
int
ubuntu@ubuntu:~/Desktop/C_Programs$ ./table
Print a number to print its multiplication table: 3
Segmentation fault (core dumped)
ubuntu@ubuntu:~/Desktop/C_Programs$ nano table.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc table.c -o table
ubuntu@ubuntu:~/Desktop/C_Programs$ ./table
Print a number to print its multiplication table: 3
Mulitplication table of 3:
3 * 0 = 0
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
3 * 7 = 21
3 * 8 = 24
3 * 9 = 27
3 * 10 = 30


es
Terminal
Sep 2 20:24
ubuntu@ubuntu: ~/Desktop/C_Programs
ubuntu@ubuntu:~/Desktop/C_Programs$ ./continue
1 3 ubuntu@ubuntu:~/Desktop/C_Programs$ cat continue.c
#include<stdio.h>
int main(){
for(int i=0;i<5;i++){
if(i%2==0){
continue;
}
printf("%d ",i);
}
}
ubuntu@ubuntu:~/Desktop/C_Programs$ ./continue
1 3 ubuntu@ubuntu:~/Desktop/C_Programs$


es
Terminal
Sep 2 19:34
ubuntu@ubuntu: ~/Desktop/C_Programs
ubuntu@ubuntu:~/Desktop/C_Programs$ nano bit_operators.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc bit_operators.c -o bit
bit_operators.c: In function ‘main’:
bit_operators.c:23:16: warning: passing argument 1 of ‘printf’ makes pointer from integer without a cast [-Wint-conversion]
23 | printf(~j);
| ^~
| |
| int
In file included from bit_operators.c:1:
/usr/include/stdio.h:356:43: note: expected ‘const char * restrict’ but argument is of type ‘int’
356 | extern int printf (const char *__restrict __format, ...);
| ~~~~~~~~~~~~~~~~~~~~~~~~^~~~~~~~
bit_operators.c:23:9: warning: format not a string literal and no format arguments [-Wformat-security]
23 | printf(~j);
| ^~~~~~
ubuntu@ubuntu:~/Desktop/C_Programs$ ./bit
This is Example of | operator which returns True if either Value is True, if both false returns False
Segmentation fault (core dumped)
ubuntu@ubuntu:~/Desktop/C_Programs$ nano greatest_num.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc greatest_num.c -o great
greatest_num.c: In function ‘main’:
greatest_num.c:9:16: warning: too many arguments for format [-Wformat-extra-args]
9 | printf("Greatest Number is",great);
| ^~~~~~~~~~~~~~~~~~~
ubuntu@ubuntu:~/Desktop/C_Programs$ nano greatest_num.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc greatest_num.c -o great
ubuntu@ubuntu:~/Desktop/C_Programs$ ./great
Greatest Number is 20ubuntu@ubuntu:~/Desktop/C_Programs$ cat greatest_num.c
#include<stdio.h>
int main() {
int a = 10;
int b = 20;
int c = 5;
int great;
great = (a > b) ? (a > c ? a : c) : (b> c ? b :c);
printf("Greatest Number is %d",great);
return 0;
}
ubuntu@ubuntu:~/Desktop/C_Programs$


VMware Fusion File Edit View Virtual Machine Window Help
6:21 PM
Activities
Terminal
Sep 1 12:51
ubuntu@ubuntu: ~/Desktop/C_Programs
arrayinit.c: In function ‘main’:
arrayinit.c:6:1: warning: implicit declaration of function ‘print’; did you mean ‘printf’? [-Wimplicit-function-declaration]
6 | print("%d %d %d %d ",my_array[0], my_array[2], my_array[4], my_array[8]);
| ^~~~~
| printf
/usr/bin/ld: /tmp/cc1bDJRi.o: in function `main':
arrayinit.c:(.text+0x74): undefined reference to `print'
collect2: error: ld returned 1 exit status
ubuntu@ubuntu:~/Desktop/C_Programs$ nano arrayinit.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc arrayinit.c -o arrayinit
ubuntu@ubuntu:~/Desktop/C_Programs$ ./arrayinit
1 3 5 490546432 ubuntu@ubuntu:~/Desktop/C_Programs$ cat arrayinit.c
#include<stdio.h>
int main(){
int my_array[8] = {1,2,3,4,5,6,7,8};
float my_decimals[3] = {1.2, 3.2, 4.8};
printf("%d %d %d %d ",my_array[0], my_array[2], my_array[4], my_array[8]);
}
ubuntu@ubuntu:~/Desktop/C_Programs$ ./arrayinit
1 3 5 2138724864 ubuntu@ubuntu:~/Desktop/C_Programs$ nano arrayinit.c
ubuntu@ubuntu:~/Desktop/C_Programs$ ./arrayinit
1 3 5 -1027668224 ubuntu@ubuntu:~/Desktop/C_Programs$ nano arrayinit.c
ubuntu@ubuntu:~/Desktop/C_Programs$ ./arrayinit
1 3 5 -342917120 ubuntu@ubuntu:~/Desktop/C_Programs$ nano arrayinit.c
ubuntu@ubuntu:~/Desktop/C_Programs$ ./arrayinit
1 3 5 -1247965184 ubuntu@ubuntu:~/Desktop/C_Programs$ cat arrayinit.c
#include<stdio.h>
int main(){
int my_array[6] = {1,2,3,4,5,6};
float my_decimals[3] = {1.2, 3.2, 4.8};
char course[4] = {'D','B','D','A'}
printf("%d %d %d %d ",my_array[0], my_array[2], my_array[4], my_array[5]);
printf("\n %c %c %c %c ",course[0],course[1],course[2],course[3]);
}
ubuntu@ubuntu:~/Desktop/C_Programs$ ./arrayinit
1 3 5 -2057548544 ubuntu@ubuntu:~/Desktop/C_Programs$


VMware Fusion File Edit View Virtual Machine Window Help
6:50 PM
Activities
Terminal
Sep 1 13:20
ubuntu@ubuntu: ~/Desktop/C_Programs
| | |
| int * int
ubuntu@ubuntu:~/Desktop/C_Programs$ ^C
ubuntu@ubuntu:~/Desktop/C_Programs$ cat read_array.c
#include <stdio.h>
int main(){
int arr[5];
int i;
printf("\n Enter the 5 Numbers of your choice");
for(i=0;i<5;i++)
scanf("%d", arr[i]);
printf("\n Numbers entered are as follows.");
for(i=0;i<5;i++)
printf("\n %d",arr[i]);
}
ubuntu@ubuntu:~/Desktop/C_Programs$ nano read_array.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc read_array.c -o read_array
read_array.c: In function 'main':
read_array.c:9:17: warning: format '%d' expects argument of type 'int *', but argument 2 has type 'int' [-Wformat=]
9 | scanf("%d", arr[i]);
| ~^ ~~~~~~
| | |
| int * int
ubuntu@ubuntu:~/Desktop/C_Programs$ nano read_array.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc read_array.c -o read_array
ubuntu@ubuntu:~/Desktop/C_Programs$ ./read_array.c
bash: ./read_array.c: Permission denied
ubuntu@ubuntu:~/Desktop/C_Programs$ ./read_array
Enter the 5 Numbers of your choice23
33
44
55
66
Numbers entered are as follows./n 23 33 44 55 66 ubuntu@ubuntu:~/Desktop/C_Programs$


VMware Fusion File Edit View Virtual Machine Window Help
7:55 AM
Activities
Terminal
Sep 2 02:25
ubuntu@ubuntu: ~/Desktop/C_Programs
10 | scanf("%d",&numbers[i]);
| ^~~~~~~
missing_number.c:18:8: warning: too many arguments for format [-Wformat-extra-args]
18 | printf("Sum for Given numbers is",sum);
| ^~~~~~~~~~~~~~~~~~~~~~~~~~
ubuntu@ubuntu:~/Desktop/C_Programs$ nano missing_number.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc missing_number.c -o missing_number
missing_number.c: In function 'main':
missing_number.c:7:9: warning: format '%d' expects argument of type 'int *', but argument 2 has type 'int' [-Wformat=]
7 | scanf("%d",n);
| ~^ ~
| | |
| | int
| int *
missing_number.c:19:8: warning: too many arguments for format [-Wformat-extra-args]
19 | printf("&d",sum);
| ^~~~
ubuntu@ubuntu:~/Desktop/C_Programs$ ./missing_number
enter size of array, any number !4
Segmentation fault (core dumped)
ubuntu@ubuntu:~/Desktop/C_Programs$ nano primitive.c
ubuntu@ubuntu:~/Desktop/C_Programs$ gcc primitive.c -o primitive
ubuntu@ubuntu:~/Desktop/C_Programs$ ./primitive
The size of Char is 1 ByteThe Size of Short is 2 Byte.The size of Int is Byte.The size of long is 4x32 and 8x64 bytes respectivelyT
he size of float is 4 bytes is 4 bytesThe Size of double is 8 bytesThe size of Boolean is 1 Byte.ubuntu@ubuntu:~/Desktop/C_Programs$
ubuntu@ubuntu:~/Desktop/C_Programs$ nano primitive.c
ubuntu@ubuntu:~/Desktop/C_Programs$ ./primitive
The size of Char is 1 ByteThe Size of Short is 2 Byte.The size of Int is Byte.The size of long is 4x32 and 8x64 bytes respectivelyT
he size of float is 4 bytes is 4 bytesThe Size of double is 8 bytesThe size of Boolean is 1 Byte.ubuntu@ubuntu:~/Desktop/C_Programs$
gcc primitive.c -o primitive
ubuntu@ubuntu:~/Desktop/C_Programs$ ./primitive
The size of Char is 1 Byte
The Size of Short is 2 Byte.
The size of Int is Byte.
The size of long is 4x32 and 8x64 bytes respectively
The size of float is 4 bytes is 4 bytes
The Size of double is 8 bytes
The size of Boolean is 1 Byte.ubuntu@ubuntu:~/Desktop/C_Programs$

Demonstrated on 4 September 2024