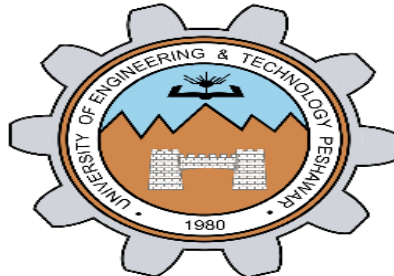


## LAB REPORT NO 5



Submitted by: **Muhammad Ali**

Registration No: - **19PWCSE1801**

Class Section: A

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Submitted to:

**Engr. Mian Ibad Ali shah**

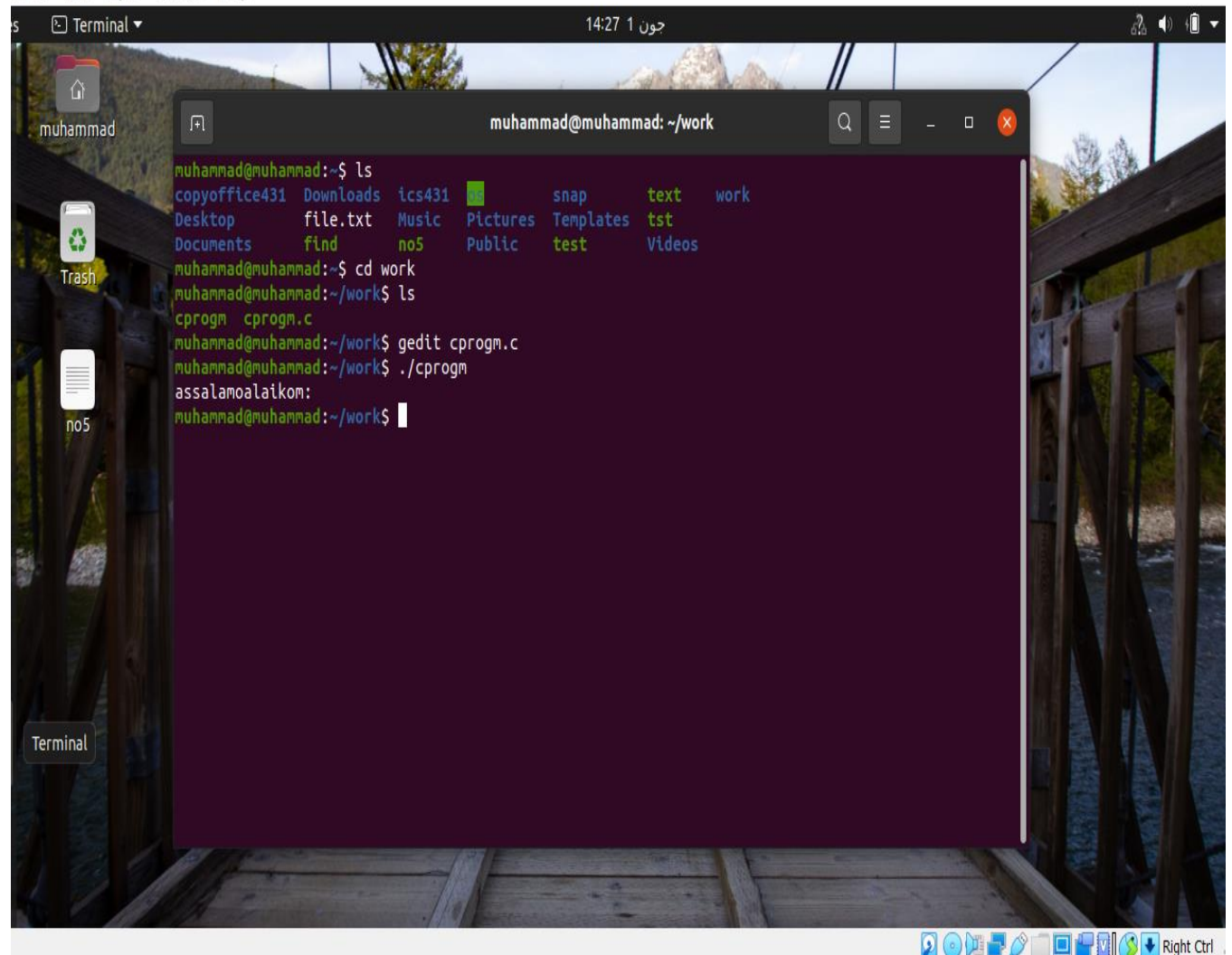
Data: (03,06,2021)

Department of Computer Systems Engineering

University of Engineering and Technology, Peshawar

itu20.04 [Running] - Oracle VM VirtualBox

Machine View Input Devices Help



### Addition code: -

```
#include <stdio.h>
```

```
int add (int a,int b){
```

```
return a+b;
```

```
}
```

```
int main() {
```

```
int c,e;
```

```
printf ("enter an integer \n");
```

```
scanf("%d", &c);
```

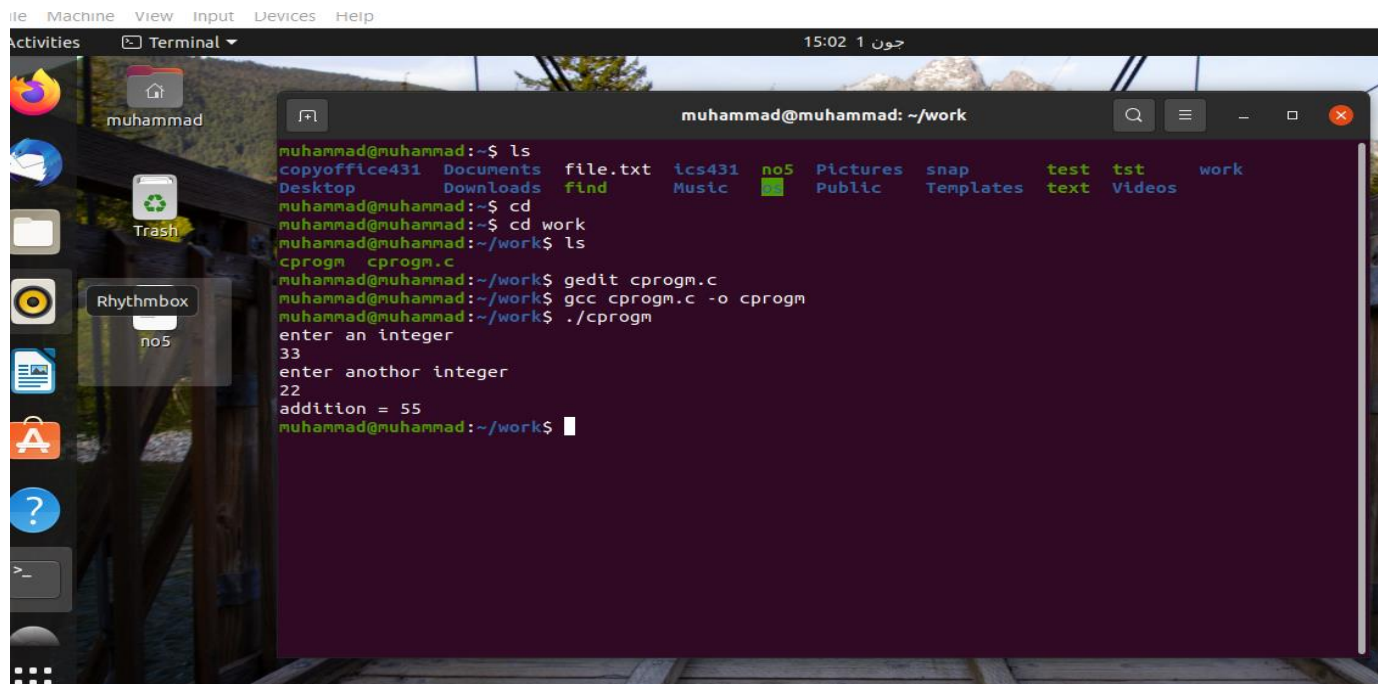
```
printf ("enter anothor integer \n");
```

```
scanf("%d", &e);
```

```
printf ("addition = %d\n", add (c,e));
```

```
return 0;
```

```
}
```



The screenshot shows a Linux desktop with a terminal window open. The terminal displays the following commands and output:

```
muhammad@muhammad:~$ ls
copyoffice431  Documents  file.txt  ics431  no5  Pictures  snap  test  tst  work
Desktop        Downloads  find      Music   █    Public   Templates  text  tst  Videos
muhammad@muhammad:~$ cd work
muhammad@muhammad:~/work$ ls
cprogm  cprogm.c
muhammad@muhammad:~/work$ gedit cprogm.c
muhammad@muhammad:~/work$ gcc cprogm.c -o cprogm
muhammad@muhammad:~/work$ ./cprogm
enter an integer
33
enter anothor integer
22
addition = 55
muhammad@muhammad:~/work$
```

The desktop background is a scenic image of a wooden bridge over a river. The terminal window has a dark purple background and white text. The desktop icons include a home folder, trash, and a 'Rhythmbox' music player.

**Addition code: -**

```
#include <stdio.h>
```

```
void add (int a,int b, int *ptr){
```

```
    *ptr=a+b;
```

```
}
```

```
int main() {
```

```
    int c,e,p;
```

```
    printf ("enter an integer \n");
```

```
    scanf("%d", &c);
```

```
    printf ("enter anothor integer \n");
```

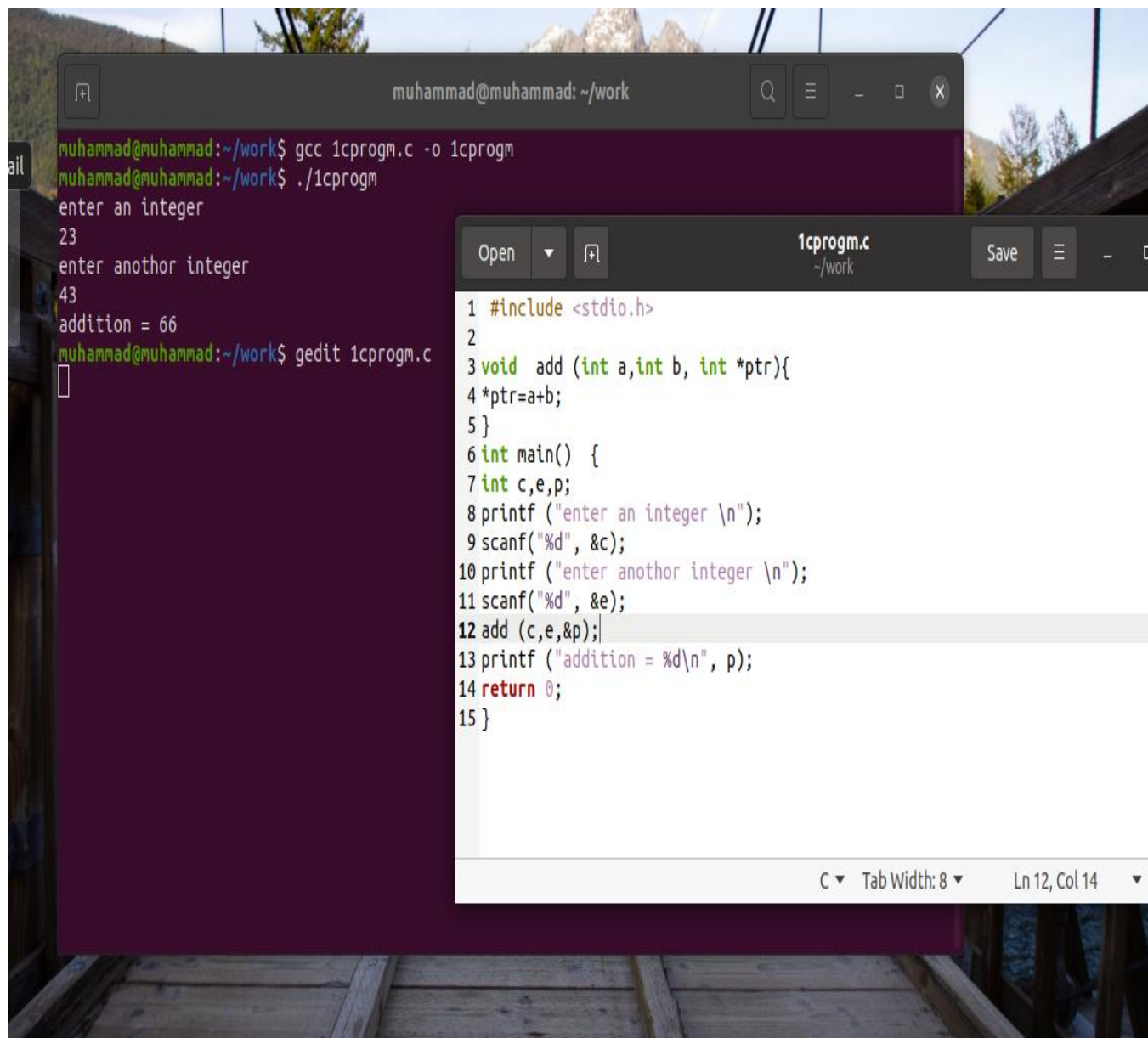
```
    scanf("%d", &e);
```

```
    add (c,e,&p);
```

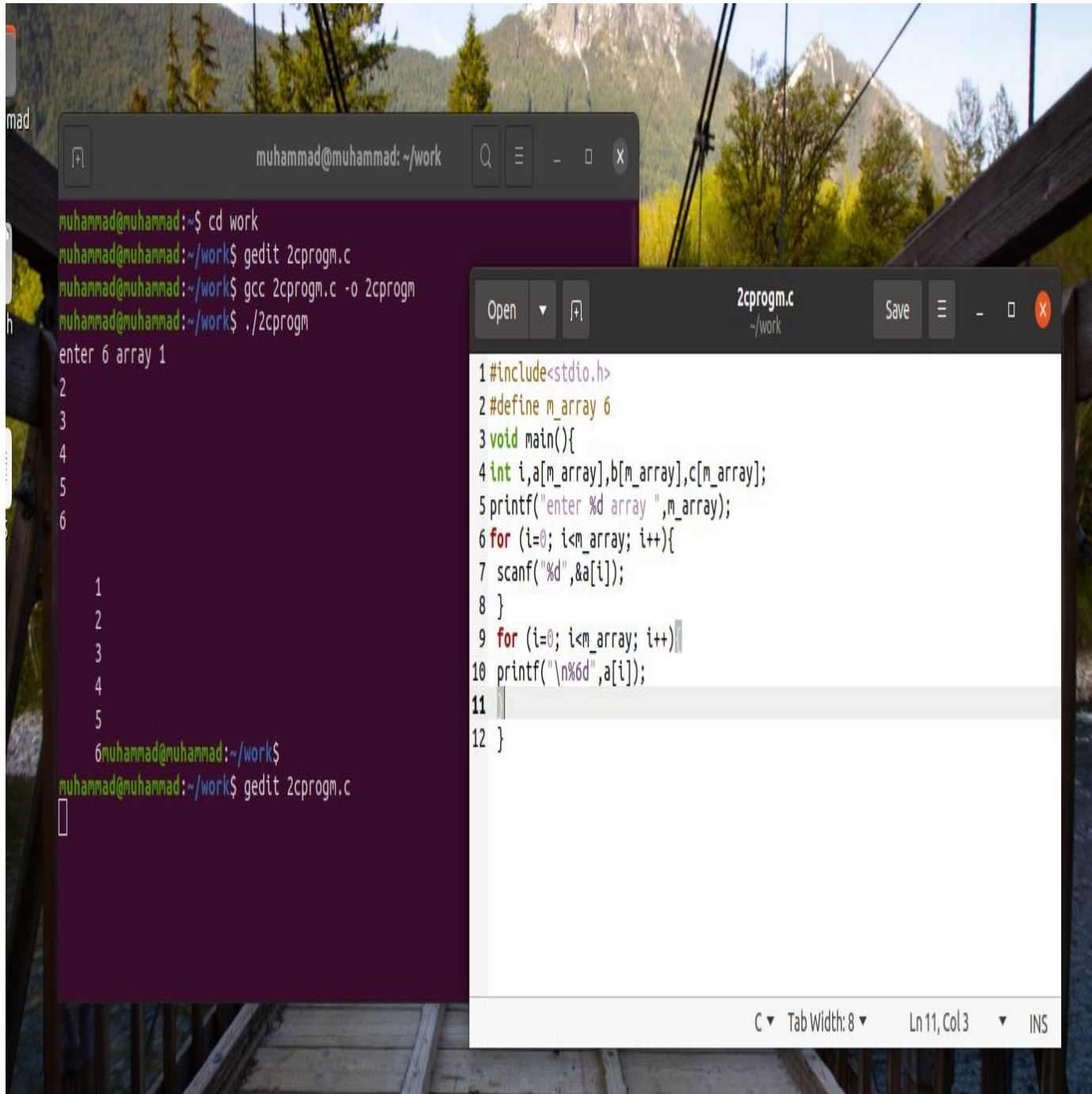
```
    printf ("addition = %d\n", p);
```

```
    return 0;
```

```
}
```



## Simple array: -



The image shows a terminal window and a code editor window. The terminal window displays the following commands and output:

```
muhammad@muhammad: ~$ cd work
muhammad@muhammad: ~/work$ gedit 2cprog.c
muhammad@muhammad: ~/work$ gcc 2cprog.c -o 2cprog
muhammad@muhammad: ~/work$ ./2cprog
enter 6 array 1
2
3
4
5
6
1
2
3
4
5
6muhammad@muhammad: ~/work$
muhammad@muhammad: ~/work$ gedit 2cprog.c
```

The code editor window shows the contents of the file `2cprog.c`:

```
1#include<stdio.h>
2#define m_array 6
3void main(){
4int i,a[m_array],b[m_array],c[m_array];
5printf("enter %d array ",m_array);
6for (i=0; i<m_array; i++){
7scanf("%d",&a[i]);
8}
9for (i=0; i<m_array; i++){
10printf("\n%d",a[i]);
11}
12}
```

The status bar at the bottom of the code editor indicates "C", "Tab Width: 8", "Ln 11, Col 3", and "INS".

## Subtraction of two array:-

```
#include<stdio.h>

#define m_array 6

void main(){

int i,a[m_array],b[m_array],c[m_array];

printf("enter 2 %d element array \n",m_array);

for (i=0; i<m_array; i++){

scanf("%d",&a[i]);

}

for (i=0; i<m_array; i++){

scanf("%d",&b[i]);

}

for (i=0; i<m_array; i++){

c[i]=b[i]-a[i];

}

printf("\n1st array is ");

for (i=0; i<m_array; i++){

printf("\n %6d",a[i]);

}

printf("\n2st array is ");

for (i=0; i<m_array; i++){

printf("\n %6d",b[i]);

}

printf("\ndifference of two array is ");

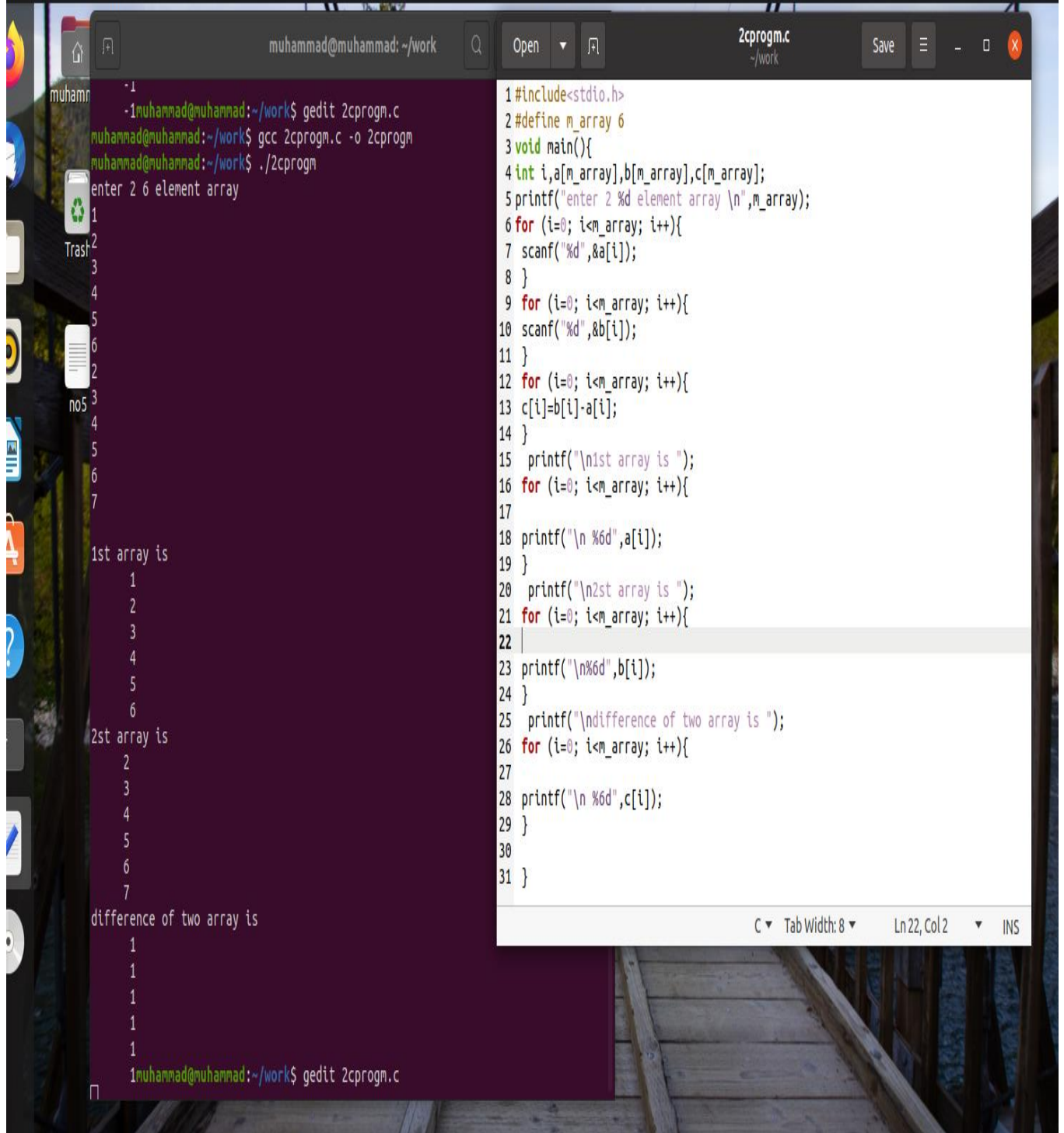
for (i=0; i<m_array; i++){

printf("\n %6d",c[i]);

}

}
```





The screenshot displays a Linux desktop environment. On the left, a sidebar contains icons for various applications, including a file manager, a terminal, and a text editor. The main area is divided into two windows. The top window is a terminal titled "muhammad@muhammad: ~/work". It shows the following commands and output:

```
muhammad@muhammad:~/work$ gedit 2cprogn.c
muhammad@muhammad:~/work$ gcc 2cprogn.c -o 2cprogn
muhammad@muhammad:~/work$ ./2cprogn
enter 2 6 element array
1
2
3
4
5
6
7
1st array is
1
2
3
4
5
6
2st array is
2
3
4
5
6
difference of two array is
1
1
1
1
1
1
muhammad@muhammad:~/work$ gedit 2cprogn.c
```

The bottom window is a text editor titled "2cprogn.c" with the file path "~/work". It contains the following C code:

```
1#include<stdio.h>
2#define m_array 6
3void main(){
4int i,a[m_array],b[m_array],c[m_array];
5printf("enter 2 %d element array \n",m_array);
6for (i=0; i<m_array; i++){
7scanf("%d",&a[i]);
8}
9for (i=0; i<m_array; i++){
10scanf("%d",&b[i]);
11}
12for (i=0; i<m_array; i++){
13c[i]=b[i]-a[i];
14}
15printf("\n1st array is ");
16for (i=0; i<m_array; i++){
17
18printf("\n %6d",a[i]);
19}
20printf("\n2st array is ");
21for (i=0; i<m_array; i++){
22
23printf("\n%6d",b[i]);
24}
25printf("\ndifference of two array is ");
26for (i=0; i<m_array; i++){
27
28printf("\n %6d",c[i]);
29}
30
31}
```

The text editor window also shows the status bar at the bottom: "C Tab Width: 8 Ln 22, Col 2 INS".



## Link list: -

```
#include <stdio.h>

#include <stdlib.h>

#include <string.h>

typedef struct list{

    char data[50];

    struct list* next;

}list;

typedef enum{ false=0, true}boolean;

void add(list*,char*);

boolean search(list*, char *);


int main()

{

    struct list* first;

    struct list *second;

    struct list *third;


    first=(struct list*)malloc(sizeof(struct list));

    second=(struct list*)malloc(sizeof(struct list));

    third=(struct list*)malloc(sizeof(struct list));


    first->data[50]="li";

    first->next=second;
```

```
second->data[50]="khan";
```

```
second->next=second;
```

```
third->data[50]="Muhammad";
```

```
third->next=NULL;
```

```
add(third,first);
```

```
}
```

```
void add(list* next,char* newnam){
```

```
    struct list* newname ;
```

```
    newname=(struct list*)malloc(sizeof(struct list));
```

```
    newname->data[50]="ammad";
```

```
    newname->next=NULL;
```

```
    while( newnam!=NULL){
```

```
        printf("%d element",newnam->data);
```

```
        newnam=newnam->next;
```

```
    }
```

```
}
```

```
boolean search(list* a, char * b){
```

```
    return true=1;false=0;
```

```
}
```

