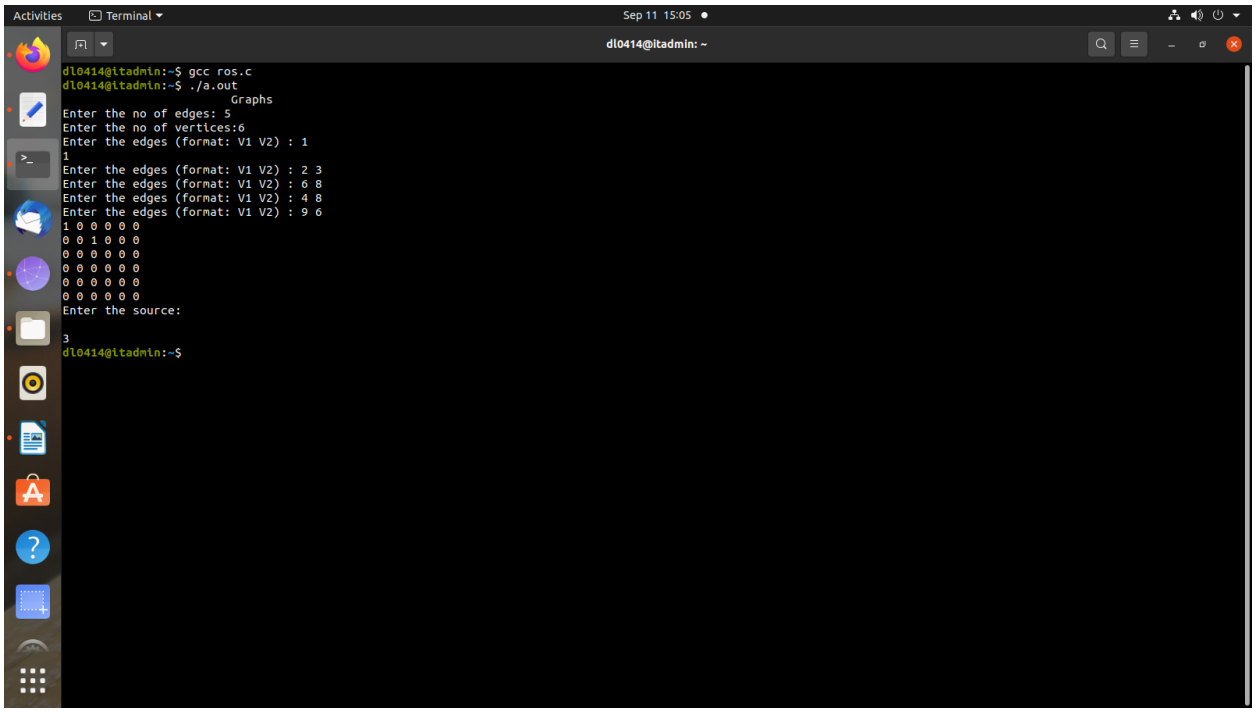
EXPERIMENT 7

```
#include <stdio.h>
#include <stdlib.h>
int source,V,E, time,visited [20], G[20][20];
void DFS(int i)
{
	int j;
	visited[i]=1;
	printf("%d->",i+1);
	for(j=0;j<V; j++)
	{
		if(G[i][j]==1&&visited[j]==0)
		DFS(j);
	}
}
int main()
{
	int i,j,v1,v2;
	printf("\t\t\tGraphs\n");
	printf("Enter the no of edges: ");
	scanf("%d", &E);
	printf("Enter the no of vertices:");
	scanf("%d", &V);
	for(i=0;i<V;i++)
	{
		for(j=0;j<V; j++) G[i][j]=0;
	}
	for(i=0;i<E;i++)
	{
	printf("Enter the edges (format: V1 V2) : ");
	scanf("%d %d",&v1,&v2);
	G[v1-1][v2-1]=1;
	}
	for(i=0;i<V;i++)
	{
		for(j=0;j<V; j++)
		printf("%d ",G[i][j]);
		printf("\n");
	}
	printf("Enter the source: ");
	scanf("%d", &source);
		DFS (source-1);
```

```
        return 0;
}
```


Activities
Terminal
Sep 11 15:05
dl0414@itadmin: ~
dl0414@itadmin:~$ gcc ros.c
dl0414@itadmin:~$ ./a.out
Graphs
Enter the no of edges: 5
Enter the no of vertices:6
Enter the edges (format: V1 V2) : 1
1
Enter the edges (format: V1 V2) : 2 3
Enter the edges (format: V1 V2) : 6 8
Enter the edges (format: V1 V2) : 4 8
Enter the edges (format: V1 V2) : 9 6
1 0 0 0 0 0
0 0 1 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
Enter the source:
3
dl0414@itadmin:~$