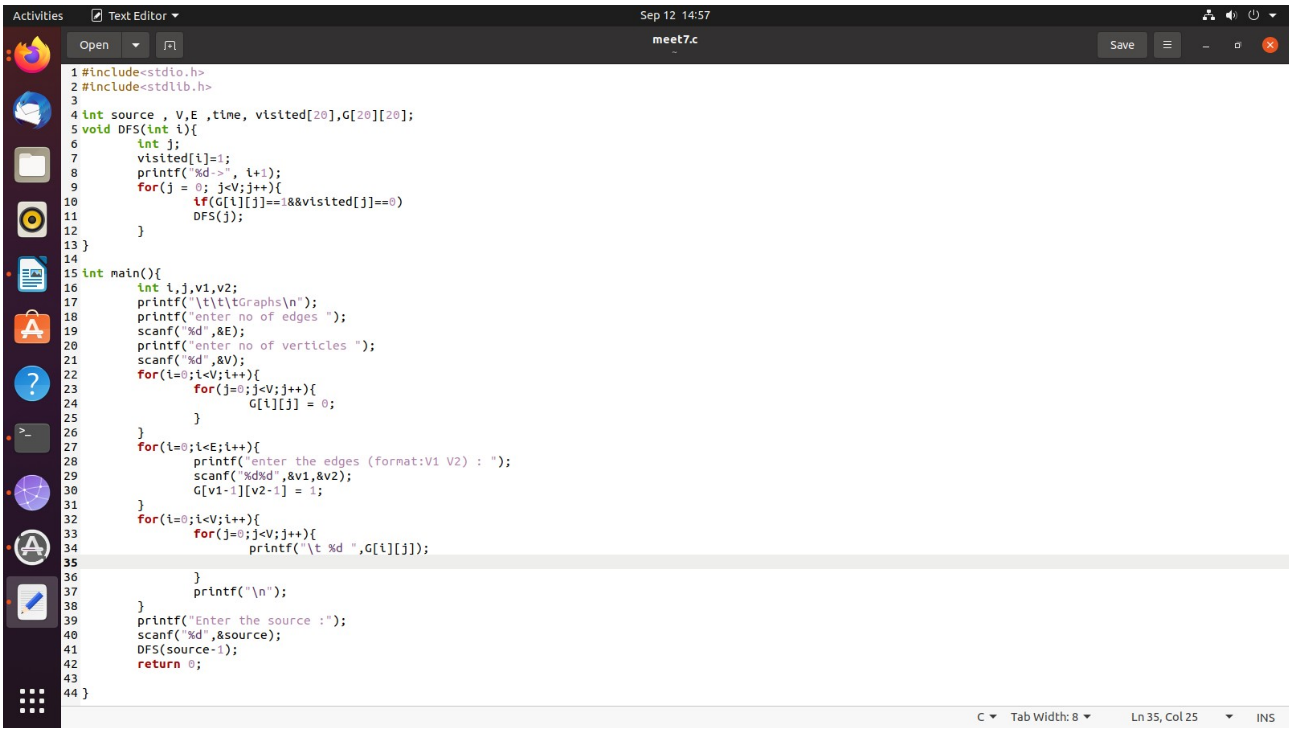
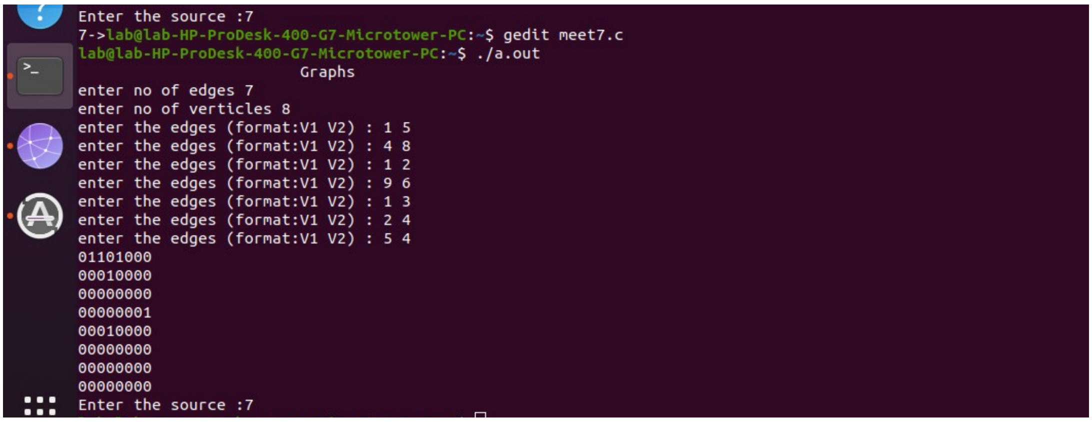
MEET PATEL
SY IT – 43
DSA EXP NO.7

CODE:



```c
#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 no of edges ");
        scanf("%d",&E);
        printf("enter no of verticles ");
        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("\t %d ",G[i][j]);

                }
                printf("\n");
        }
        printf("Enter the source :");
        scanf("%d",&source);
        DFS(source-1);
        return 0;

}
```

OUTPUT:



```
Enter the source :7
7->lab@lab-HP-ProDesk-400-G7-Microtower-PC:~$ gedit meet7.c
lab@lab-HP-ProDesk-400-G7-Microtower-PC:~$ ./a.out
                        Graphs
enter no of edges 7
enter no of verticles 8
enter the edges (format:V1 V2) : 1 5
enter the edges (format:V1 V2) : 4 8
enter the edges (format:V1 V2) : 1 2
enter the edges (format:V1 V2) : 9 6
enter the edges (format:V1 V2) : 1 3
enter the edges (format:V1 V2) : 2 4
enter the edges (format:V1 V2) : 5 4
01101000
00010000
00000000
00000001
00010000
00000000
00000000
00000000
Enter the source :7
```