Write program to obtain the Topological ordering of vertices in a given digraph.

```
#include<stdio.h>
  int temp[10],k=0;

void topo(int n,int indegree[10],int a[10][10])
  {
  int i,j;

  for(i=1;i<=n;i++)
   {
           if(indegree[i]==0)
            {
            indegree[i]=1;
              temp[++k]=i;
                   for(j=1;j<=n;j++)
                     {
                      if(a[i][j]==1&&indegree[j]!=-1)
                       indegree[j]--;
                     }
                     i=0;
              }
    }
  }

 void main()
  {
  int i,j,n,indegree[10],a[10][10];
  printf("enter the number of vertices:");
  scanf("%d",&n);
  for(i=1;i<=n;i++)
  indegree[i]=0;

  printf("\n enter the adjacency matrix\n");
  for(i=1;i<=n;i++)
  for(j=1;j<=n;j++)
  {
    scanf("%d",&a[i][j]);
    if(a[i][j]==1)
```

```
    indegree[j]++;
  }

  topo(n,indegree,a);

  if(k!=n)
  printf("topological ordering is not possible\n");

else
  {
    printf("\n topological ordering is :\n");
    for(i=1;i<=k;i++)
    printf("v%d\t",temp[i]);
   }
 }
```

Output

```
enter the number of vertices:5

 enter the adjacency matrix
0 1 1 0 0
0 0 0 1 0
0 0 0 1 0
0 0 0 0 1
0 0 0 0 0

 topological ordering is :
v1      v2      v3      v4      v5
Process returned 5 (0x5)   execution time : 4.837 s
Press any key to continue.
```