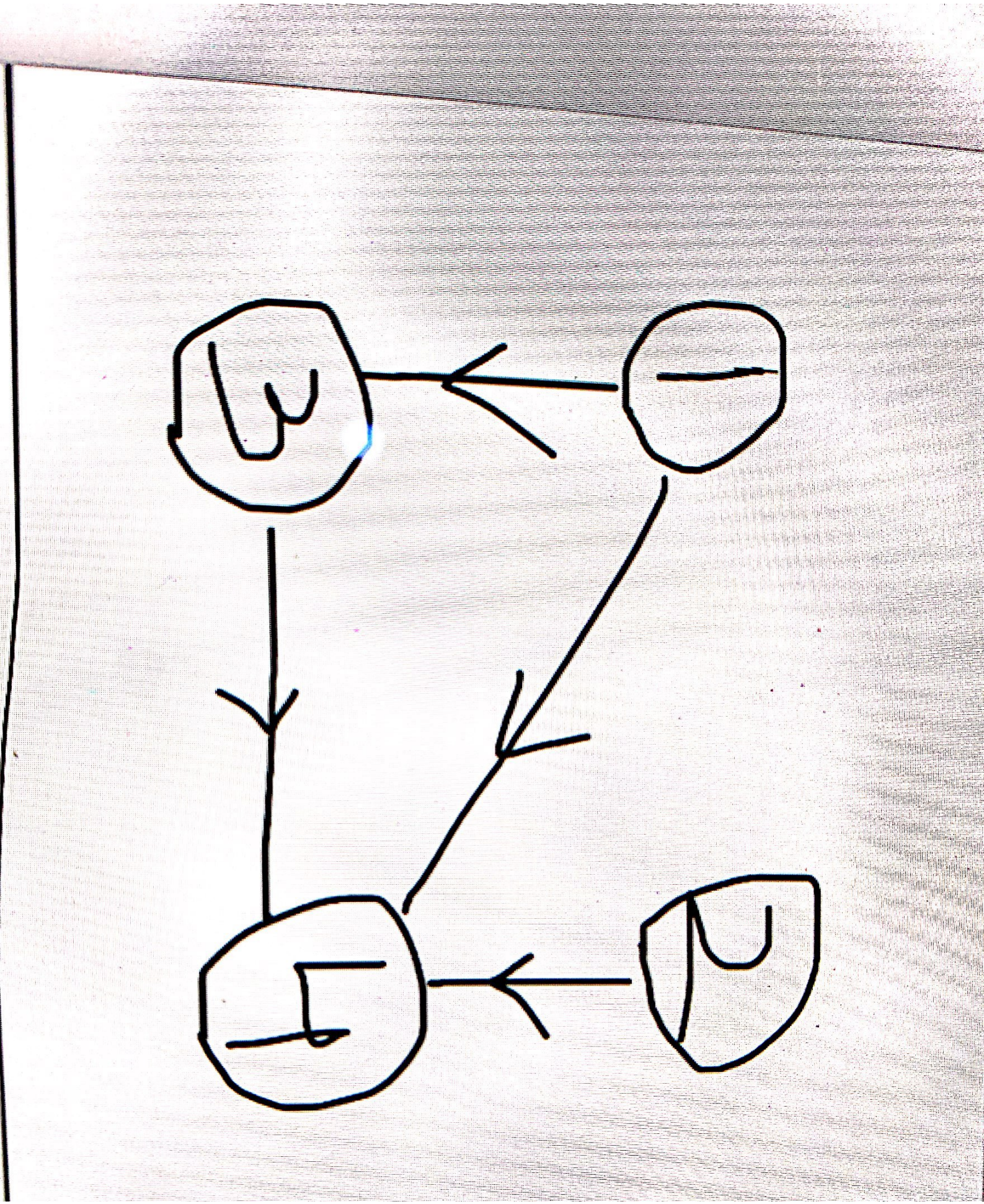
main.c

```
#include<stdio.h>
#include<stdlib.h>
int a[10][10],n,indegre[10];
void find_indegre()
{ int j,i,sum;
for(j=0;j<n;j++)
{
sum=0;
for(i=0;i<n;i++)
sum+=a[i][j];
indegre[j]=sum;
}
}
void topology()
{
int i,u,v,t[10],s[10],top=-1,k=0;
find_indegre();
for(i=0;i<n;i++)
{
if(indegre[i]==0) s[++top]=i;
}
while(top!=-1)
{
u=s[top--];
t[k++]=u;
for(v=0;v<n;v++)
{
if(a[u][v]==1)
{
indegre[v]--;
if(indegre[v]==0) s[++top]=v;
}
}
}
```

```
34      }
35      printf("The topological Sequence is:\n");
36      for(i=0;i<n;i++)
37      printf("%d ",t[i]);
38      }
39      int main()
40      {
41      int i,j;
42      printf("Enter number of vertices:");
43      scanf("%d",&n);
44      printf("\nEnter the adjacency matrix:\n");
45      for(i=0;i<n;i++)
46      {
47      for(j=0;j<n;j++)
48      scanf("%d",&a[i][j]);
49      }
50      topology();
51      }
```

```
clang-7 -pthread -lm -o main main.c
./main
Enter number of vertices:4

Enter the adjacency matrix:
0 0 1 1
0 0 0 1
0 0 0 1
0 0 0 0
The topological Sequence is:
1 0 2 3
```



/ PastelUntidySlope

Run ▶

main.c

```c
#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;
}
}
}

int main()
{
int i,j,n,indegree[10],a[10][10];
printf("enter the number of vertices:");
```

main.c

```
27      printf("enter the number of vertices: ");
28      scanf("%d",&n);
29      for(i=1;i<=n;i++)
30      indegree[i]=0;
31      printf("\n enter the adjacency matrix\n");
32      for(i=1;i<=n;i++)
33      for(j=1;j<=n;j++)
34      {
35      scanf("%d",&a[i][j]);
36      if(a[i][j]==1)
37      indegree[j]++;
38      }
39      topo(n,indegree,a);
40      if(k!=n)
41      printf("topological ordering is not possible\n");
42      else
43      {
44      printf("\n topological ordering is :\n");
45      for(i=1;i<=k;i++)
46      printf("v%d\t",temp[i]);
47      }
48      }
```