```c
#include<stdio.h>
int ary[10][10],completed[10],n,cost=0;
//Adkash Shridharan BE20F05F062
void takeInput(){ int i,j;
printf("Enter the number of villages: "); scanf("%d",&n);
printf("\nEnter the Cost Matrix\n"); for(i=0;i < n;i++){
printf("\nEnter Elements of Row: %d\n",i+1); for( j=0;j < n;j++)
scanf("%d",&ary[i][j]); completed[i]=0}
printf("\n\nThe cost list is:"); for( i=0;i < n;i++){
printf("\n"); for(j=0;j < n;j++)
printf("\t%d",ary[i][j]);}}
void mincost(int city){ int i,ncity;
completed[city]=1; printf("%d--->",city+1); ncity=least(city); if(ncity==999){
ncity=0; printf("%d",ncity+1); cost+=ary[city][ncity]; return;}
mincost(ncity)}
int least(int c){
int i,nc=999;
int min=999,kmin; for(i=0;i < n;i++){
if((ary[c][i]!=0)&&(completed[i]==0))
if(ary[c][i]+ary[i][c] < min){
min=ary[i][0]+ary[c][i]; kmin=ary[c][i];
nc=i;}}
if(min!=999)
cost+=kmin; return nc;}
int main(){
takeInput();
printf("\n\nThe Path is:\n");
mincost(0);
```

```
C:\Users\Admin\Desktop\OS practical\TSP.exe

Enter the number of villages: 3

Enter the Cost Matrix

Enter Elements of Row: 1
1
3
3


Enter Elements of Row: 2
2
3
5


Enter Elements of Row: 3
22
1
4


The cost list is:
        1        3        3
        2        3        5
        22       1        4

The Path is:
1--->2--->3--->1
-----------------------------------
Process exited after 15.61 seconds with return value 0
Press any key to continue . . .
```