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#include<stdio.h>

int ary[10][10],completed[10],n,cost=0;

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",i);

        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);
}

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        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); //passing 0 because starting from 0

        printf("\n\nMinimum cost is %d\n ",cost);

        return 0;
    }

```