## 图的建立模块

### 代码

void creat(Mgraph \*g, int c)

{

int i,j,k,w;

FILE \*rf;

rf=fopen("Ljjz.txt","r");

if(rf)

{

fscanf(rf,"%d%d\n",&g->n,&g->e);

for(i=0;i<g->n;i++)

{

fscanf(rf,"%d",&g->vexs[i].adjvex);

}

for(i=0;i<g->n;i++)

for(j=0;j<g->n;j++)

if(i==j) g->edges[i][j]=0;

else g->edges[i][j]=FINITY;

for(k=0;k<g->e;k++)

{

fscanf(rf,"%d%d%d",&i,&j,&w);

g->edges[i][j]=w;

if(c==0) g->edges[j][i]=w;

}

}

else g->n=0;

fclose(rf);

}

typedef int SerialNum;

typedef char SpotName;

typedef char SpotDetail;

typedef struct

{

SerialNum No;

SpotName name[NameSpace];

SpotDetail detail[NameSpace];

}Spot;

typedef Spot SpotMenu;

typedef struct

{

SpotMenu place[NameSpace];

int capacity;

}SpotList;

void readFile(SpotList \*sp)

{

FILE \*rf;

if((rf=fopen("info.txt","r"))==NULL)

printf("NONE");

else

{

fscanf(rf,"%d",&sp->capacity);

int i=0;

while(i<sp->capacity)

{

fscanf(rf,"%d\n",&sp->place[i].No);

fgets(sp->place[i].name,NameSpace,rf);

fgets(sp->place[i].detail,NameSpace,rf);

i++;

}

fclose(rf);

}

}

void DisplayInfo(SpotList \*sp,int v)

{

if(v<sp->capacity&&v>=0)

printf("No:%d\nName:%sNote:%s",sp->place[v].No,sp->place[v].name,sp->place[v].detail);

else printf("ERROR");

}

## 邻接矩阵转置邻接表模块

### 代码

void MatToList(Mgraph \*g, ALGraph \*G)

{

int i,j;

ArcNode \*p;

for(i=0;i<g->n;i++)

G->adjlist[i].firstarc=NULL;

for(i=0;i<g->n;i++)

{

for(j=g->n-1;j>=0;j--)

if((g->edges[i][j]!=0)&&(g->edges[i][j]!=FINITY))

{

p=(ArcNode\*)malloc(sizeof(ArcNode));

p->adjvex=j;

p->value=g->edges[i][j];

p->nextarc=G->adjlist[i].firstarc;

G->adjlist[i].firstarc=p;

}

G->adjlist[i].data=i;

}

G->n=g->n;

G->e=g->e;

fclose(rf);

}