1BM18CS077
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CN lab

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#include <stdio.h>
#include <conio.h
#define MAX 10
int n;
class router {
char adj_new[MAX], adj_old[MAX];
int table_new[MAX], table_old[MAX];
public:
router( )
for(int i=0;i< n;i++)
void copy( )
for(int i=0;i< n;i++) adj_old[i] =adj_new[i];
table_old[i]=table_new[i];
  }
  }
int equal( )
for(int
i=0;i< n;i++)if(table_old[i]!=table_new[i]||adj_new[i]!=a
dj_old[i])return 0;
return 1;
  }
void input(int j) {
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cout<<"Enter 1 if the corresponding router is
adjacent to router"
<<(char)('A'+j)<<" else enter 99: "<for(int
i=0;i<n;i++)if(i!=j) cout<<(char)('A'+i)<<" ";
cout<<"\nEnter matrix:";
for(i=0;i<n;i++)if(i==j)
table_new[i]=0;
else
cin>>table_new[i];
adj_new[i]= (char)('A'+i);
  }
cout<  }
void display(){
cout<<"\nDestination Router: ";
33
for(int i=0;i<n;i++) cout<<"\nOutgoing Line: ";
for(i=0;i<n;i++) cout<<"\nHop Count: ";
for(i=0;i<n;i++)  }
void build(int j) {
for(int i=0;i<n;i++)for(int k=0;(i!=j)&&
(k<n);k++)if(table_old[i]!=99)
if((table_new[i]+r[i].table_new[k])
table_new[k]=table_new[i]+r[i].table_new[k];
adj_new[k]=(char)('A'+i);
  }
```

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}
} rt[10];
void build_table( ){
int i=0, j=0;
while(i!=n) {
for(i=j;i rt[i].copy();
rt[i].build(i);
   }
for(i=0;iif(!rt[i].equal()) {
j=i;
break;
   }
   }
}
void main() {
clrscr();
cout<<"Enter the number the routers"<<n;
for(int i=0;i build_table();
for(i=0;i cout<<"Router Table entries for
router "<<(char)('A'+i)<<":-";
rt[i].display();
cout< }

g
```