

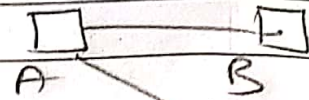
19/11/20

Lab-7

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BM19CS408

Distance vector Algo. topology



```
#include <conio.h>
```

```
#include <iostream.h>
```

```
#define MAX 10
```

```
int n;
```

Router



```
class router {
```

```
char adj-new[MAX], adj-old[MAX];
```

```
int table-new[MAX], table-old[MAX];
```

```
public:
```

```
router() {
```

```
for (int i = 0; i < MAX; i++)
```

```
table-old[i] = table-new[i] = 99;
```

```
}
```

```
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] !=
```

```
adj-old[i]) return 0;
```

```
return 1;
```

```
}
```

```

void input (int j)
{
    cout << "Enter 1 if the corresponding router is  
adjacent to router" << (char) ('A' + j) << "  
else enter 99 : " << endl << " ";
    for (int i = 0; i < n; i++)
    {
        if (i == j) cout << (char) ('A' + i) << " ";
        cout << "\n Enter 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 << endl;
    }
}

void display() {
    cout << "\n Destination Router : ";
    for (int i = 0; i < n; i++)
        cout << (char) ('A' + i) << " ";
    cout << "\n Outgoing Line : ";
    for (i = 0; i < n; i++) cout << adj.new[i] << " ";
    cout << "\n Hop Count : ";
    for (i = 0; i < n; i++)
        cout << table.new[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] + adj[i].table.new[k]) <
                    table.new[k])

```


7:

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int i = 0, j = 0;

```
while (i != n)
```

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2[1].copy();

$$g(i) = \text{build}(i);$$

٢

```
for (i=0; i<n; i++)
```

if (! isT() , equal()) {

$$j=i;$$

break:

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```
void main () {
```

Chosen by:

cout << "Enter the number the rows

$$(K'' \leq \max(K', K''))_{\beta} \quad \beta \in \mathbb{N}$$

ein $\gamma > n_2$

```
for (int i = 0; i < n; i++)  cin >> input[i];
```

```
build.table( );
```

for ($i=0$; $i < n$; $i++$)

Count << "Router table entries for router" >>

(choa) $(|A| + i) < \leq |B| + i$

or (i). display (r);

row <end1 <end1>

getch ()