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13M18CS093

classmate

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

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

```
# define MAX 10
```

```
int n;
```

```
class reader {
```

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

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

```
public:
```

```
    reader() {
```

```
        for (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;
```

```
        else return 1;
```

```
    }
```

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```
void input (int j) {
    cout << "Enter 1 if corresponding route is adj to route" << endl;
    (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 build (int j) {
    for (i = 0; i < n; i++)
        for (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[k] = table - new[i] + r[i].table - new[k];
                adj - new[k] = char ('A' + i);
    }
    r[10];
}
```



```

void build table ( ) {
    int i=0, j=0;
    while (i!=n) {
        for (j=0; j<n; j++) {
            r[i].copy ( );
            r[i].build (i);
        }
        for (i=0; i<n; i++)
            if ( ! r[i].goal ( ) ) {
                j=i;
                break;
            }
    }
}

```

```

void display ( ) {
    cout << "Destination routes"
    for (i=0; i<n; i++)
        cout << char ('A'+i) << " ";
    cout << "outgoing line"
    for (i=0; i<n; i++)
        cout << adj_new [i] << " ";
    cout << "in stop Count"
}

```

```

void main ( ) {
    cout << "Enter no. of routers : (n)"
    for (i=0; i<n; i++)
        r[i].input (i);
    build_table ();
    r[i].display ();
    cout << endl << endl;
    getch ();
}

```