

Çizgeler(Graphs)

```

#define INFINITY ...
#define MAXNODES ...
#define MEMBER 1
#define NONMEMBER 0

void shortpath (int weight[][MAXNODES], int s, int t, int *pd, int precede[])
{
    int distance[MAXNODES], perm[MAXNODES];
    int current, i, k, dc;
    int smalldist, newdist;

    /* initialization */
    for (i = 0; i < MAXNODES; ++i) {
        perm[i] = NONMEMBER;
        distance[i] = INFINITY;
    } /* end for */
    perm[s] = MEMBER;
    distance[s] = 0;
    current = s;
    while (current != t) {
        smalldist = INFINITY;
        dc = distance[current];
        for (i = 0; i < MAXNODES; i++)
            if (perm[i] == NONMEMBER) {
                newdist = dc + weight[current][i];
                if (newdist < distance[i]) {
                    /* distance from s to i through current is */
                    /* smaller than distance[i] */
                    distance[i] = newdist;
                    precede[i] = current;
                } /* end if */
                /* determine the smallest distance */
                if (distance[i] < smalldist) {
                    smalldist = distance[i];
                    k = i;
                } /* end if */
            } /* end for ... if */
        current = k;
        perm[current] = MEMBER;
    } /* end while */
    *pd = distance[t];
} /* end shortpath */

```