

```

#include <stdio.h>

#define MAX 10

#define INF 999

void dijkstra(int cost[MAX][MAX], int n, int start) {
    int dist[MAX], visited[MAX], count, minDist, nextNode, i, j;

    for (i = 0; i < n; i++) {
        dist[i] = cost[start][i];
        visited[i] = 0;
    }

    dist[start] = 0;
    visited[start] = 1;
    count = 1;

    while (count < n - 1) {
        minDist = INF;

        for (i = 0; i < n; i++)
            if (dist[i] < minDist && !visited[i]) {
                minDist = dist[i];
                nextNode = i;
            }

        visited[nextNode] = 1;

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

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        if (!visited[i])
            if (minDist + cost[nextNode][i] < dist[i])
                dist[i] = minDist + cost[nextNode][i];

        count++;
    }

    printf("\nShortest distances from source %d:\n", start);
    for (i = 0; i < n; i++)
        if (i != start)
            printf("To %d = %d\n", i, dist[i]);
}

int main() {
    int n, i, j, start;
    int cost[MAX][MAX];

    printf("Enter number of vertices: ");
    scanf("%d", &n);

    printf("Enter the cost adjacency matrix (999 for no edge):\n");
    for (i = 0; i < n; i++)
        for (j = 0; j < n; j++)
            scanf("%d", &cost[i][j]);

    printf("Enter the starting vertex (0 to %d): ", n - 1);
    scanf("%d", &start);

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dijkstra(cost, n, start);
```

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return 0;
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}
```

The screenshot displays the Programiz Online C Compiler interface. The browser address bar shows the URL `programiz.com/c-programming/online-compiler/`. The interface includes a header with the Programiz logo, a promotional banner for "Programiz PRO" with the tagline "Never struggle with DSA again. Learn with interactive visuals", and a "Try Now" button. The main workspace is divided into two panels: a code editor on the left and an output console on the right.

The code editor shows a C program named `main.c` with the following content:

```
40 }
41
42- int main() {
43     int n, i, j, start;
44     int cost[MAX][MAX];
45
46     printf("Enter number of vertices: ");
47     scanf("%d", &n);
48
49     printf("Enter the cost adjacency matrix (999 for no edge):\n");
50     for (i = 0; i < n; i++)
51         for (j = 0; j < n; j++)
52             scanf("%d", &cost[i][j]);
53
54     printf("Enter the starting vertex (0 to %d): ", n - 1);
55     scanf("%d", &start);
56
57     dijkstra(cost, n, start);
58
59     return 0;
60 }
61
```

The output console on the right shows the program's execution results:

```
Enter number of vertices: 4
Enter the cost adjacency matrix (999 for no edge):
0 5 999 10
999 0 3 999
999 999 0 1
999 999 999 0
Enter the starting vertex (0 to 3): 0

Shortest distances from source 0:
To 1 = 5
To 2 = 8
To 3 = 9

=== Code Execution Successful ===
```