Design and implement C/C++ Program to find Minimum Cost Spanning Tree of a given connected undirected graph using Prim's algorithm.

```
#include <stdio.h>

#include <limits.h>


int main() {

   int i, j, k, n, source;

   int w[50][50];

   int visited[20];

   int minWt, totalCost = 0, ev = 0, sv = 0;


   printf("Enter the number of vertices/nodes in the graph\n");

   scanf("%d", &n);


   printf("Enter the weight/cost matrix\n");

   for (i = 1; i <= n; i++) {

      for (j = 1; j <= n; j++) {

         scanf("%d", &w[i][j]);

      }

   }


   printf("Enter the source vertex to start\n");

   scanf("%d", &source);


   for (i = 1; i <= n; i++)

      visited[i] = 0;
```

```
    visited[source] = 1;

    printf("Minimum Weight/cost edges selected for spanning tree are:\n");
    for (i = 1; i < n; i++) {
        minWt = INT_MAX;
        for (j = 1; j <= n; j++) {
            if (visited[j] == 1) {
                for (k = 1; k <= n; k++) {
                    if (visited[k] != 1 && w[j][k] < minWt) {
                        sv = j;
                        ev = k;
                        minWt = w[j][k];
                    }
                }
            }
        }
        totalCost += minWt;
        visited[ev] = 1;
        printf("%d ---> %d Cost: %d\n", sv, ev, minWt);
    }

    printf("The total cost of minimum spanning tree is %d\n", totalCost);

    return 0;
}
```