

```

def minimum_cost_walk_Floyd_Warshall(graph: TripleDictGraph, starting_vertex: int,
ending_vertex: int):
    nodes = list(graph.dictionary_in.keys())
    nodes.sort()
    dist_matrix = [[float('inf') for _ in range(len(nodes))] for _ in range(len(nodes))]
    previous_matrix = [[0 for _ in range(len(nodes))] for _ in range(len(nodes))]
    for i in range(len(nodes)):
        dist_matrix[i][i] = 0

    for i in range(len(nodes)):
        vertex_i = nodes[i]
        for j in range(len(nodes)):
            vertex_j = nodes[j]
            if graph.is_edge(vertex_i, vertex_j) is True:
                dist_matrix[i][j] = graph.dictionary_cost[(vertex_i, vertex_j)]
                previous_matrix[i][j] = nodes[i]
    list_of_intermediate_matrices = []

    for k in range(len(nodes)):
        list_of_intermediate_matrices.append(copy.deepcopy(dist_matrix))
        for i in range(len(nodes)):
            for j in range(len(nodes)):
                if dist_matrix[i][j] > dist_matrix[i][k] + dist_matrix[k][j]:
                    dist_matrix[i][j] = dist_matrix[i][k] + dist_matrix[k][j]
                    previous_matrix[i][j] = previous_matrix[k][j]
                if i == j and dist_matrix[i][j] < 0:
                    raise Exception("There is a negative cost cycle!")

    if dist_matrix[nodes.index(starting_vertex)][nodes.index(ending_vertex)] == float('inf'):
        raise Exception("There is no path between these vertices!")
    path = [ending_vertex]
    end = ending_vertex

    while starting_vertex != ending_vertex:
        ending_vertex =
        previous_matrix[nodes.index(starting_vertex)][nodes.index(ending_vertex)]
        path.append(ending_vertex)

    return dist_matrix[nodes.index(starting_vertex)][nodes.index(end)], path[::-1],
list_of_intermediate_matrices

```