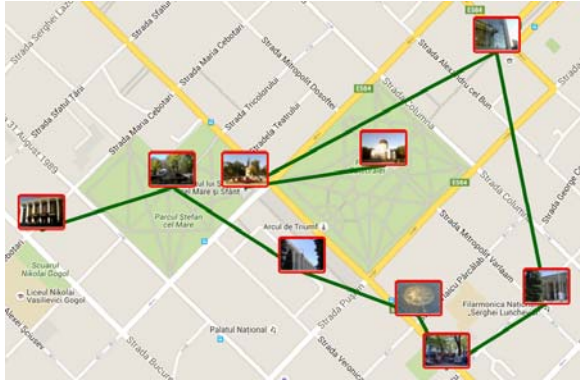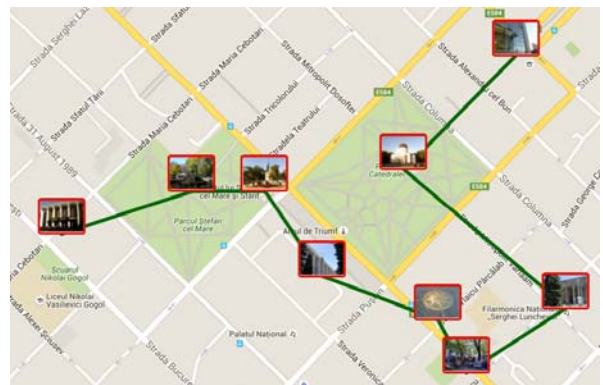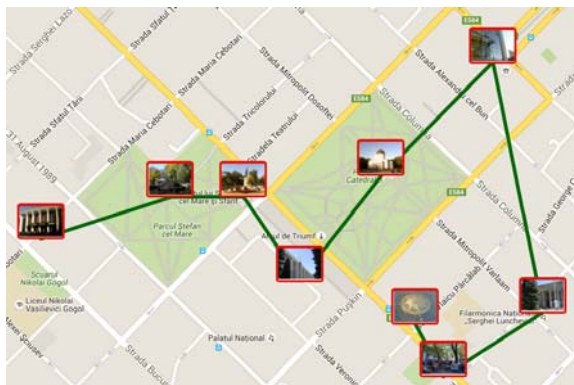# Advanced Topics of Algorithms
Tasks 5, 4.5.2016

1. Below is an example of a TSP solution. Swap-based neighbourhood function moves one node to different part of the tour. Demonstrate how it can improve the solution.

2. Two solutions are shown below. Can the swap-based local search modify the left one so that it becomes to the one in right by (a) one move, (b) sequence of moves.

3. If the swap-based fails in the above case, any ideas how to solve it either by (a) improved neighbour function, (b) some other search technique like Tabu search?