

Top Two

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10
11 def top_two(graph, start, topX=2):
12     heap = [(0, [start]), start]
13     best = defaultdict(list)
14     best[start] = [(0, [start])]
15     while heap:
16         ((cost, path), node) = heapq.heappop(heap)
17         for (other, weight) in graph[node].items():
18             if other in path:
19                 continue
20
21             new = (cost + weight, path + [other])
22             best[other] = sorted(best[other] + [new])[:topX]
23             if new in best[other]:
24                 heapq.heappush(heap, (new, other))
25
26     return best
27
```