Programming Challenges Assignment

Read graph from standard input.

example
U
4 5
1 2 5
1 3 8
2 3 6
2 4 2
3 4 3

U means undirected.
4 nodes 5 edges
dge (1,2) has weight 5, also edge (2,1)

Write Dijkstra’s algorithm to start search from node s=1.
Write Floyd-Warshall to compute APSP (all-pairs shortest paths).

Print shortest path from 1 to all other vertices (from Dijkstra).
Print computed weight matrix from FW.

Goal.
Understand Dijkstra.
Practice priority queue with decrease key operation.
Get Floyd-Warshall down pat.