

Naveenraj Palanisamy
Net Id: nxp154130

Comparison of Running time for different Methodologies.

Methodologies:

- 1) Prim priority queue of edges; using Java priority queues
- 2) Prim 1 - priority queue of Vertex; using Implemented priority queues
- 3) Dijkstra's algorithm for shortest paths using indexed heaps

DEVELOPMENT PLATFORM

IDE: Eclipse. Version: Mars.1 Release (4.5.1)

Java Version: 1.8

Operating System: Windows 10

Comparison: Time in Msec

Input	Dijkstra's Shortest Path	Prim – Using PQ of Vetex	Prim – Using PQ of Edge	Output of prim	Output of Shortest Path
G4-big.txt	688	633	5481	10000	4
G1.txt	2	3	2	84950	12020
G2.txt	4	5	8	110419	9106
G3.txt	4	5	16	153534	10672

Inference:

Prim using PQ of Vertex runs much faster for large inputs than the PQ of Edge.