

Hypothesis:

Among the three MST algorithms PRIM-2 is the MST algorithm with the lowest running time.

Reason:

The running time of the PRIM-1 is $O(V \log V + E \log V)$ by normal binary heaps, PRIM-2 is $O(V \log V + E \log V)$ by indexed heaps and KRUSKAL is $O(E \log E)$ as E can up to maximum of $E \leq |V|^2$, it might be the slowest among the three and fastest among the three is the PRIM-2.

Input size - Testing:

Input ($G = (V, E)$) size	PRIM-1	PRIM-2	KRUSKAL
$V = 50, E = 140$	2ms	3ms	10ms
$V = 100, E = 284$	2ms	3ms	3ms
$V = 200, E = 580$	4ms	4ms	5ms
$V = 10000, E = 9070678$	4149ms	750ms	2249ms

Inference:

The results show that PRIM-2 is the fastest among three of the MST algorithms for bigger inputs. But when analyzing the running time of the KRUSKAL and PRIM-1, KRUSKAL is performing better than PRIM-1 which needs further investigation.