Time Complexity for ADTs

ADT	option	File1	File2	File3	File4
6 (SkipList)	O(single insert)	logN	logN	logN	logN
	O(single delete)	-	logN	logN	logN
	O(series insert)	NlogN	NlogN	NlogN	NlogN
	O(series delete)	-	NlogN	NlogN	NlogN
	O(file)	NlogN	NlogN	NlogN	NlogN
7 (BST)	O(single insert)	N	N	N	logN
	O(single delete)	-	1	N	logN
	O(series insert)	N^2	N^2	N^2	NlogN
	O(series delete)	-	N	N^2	NlogN
	O(file)	N^2	N^2	N^2	NlogN
8 (AVL)	O(single insert)	logN	logN	logN	logN
	O(single delete)	-	logN	logN	logN
	O(series insert)	NlogN	NlogN	NlogN	NlogN
	O(series delete)	-	NlogN	NlogN	NlogN
	O(file)	NlogN	NlogN	NlogN	NlogN
9 (Splay)	O(single insert)	1	1	1	logN
	O(single delete)	-	1	1	logN
	O(series insert)	N	N	N	NlogN
	O(series delete)	-	N	N	NlogN
	O(file)	N	N	N	NlogN
10 (Btree)	O(single insert)	(M/logM)*(logN-logL)	(M/logM)*(logN-logL)	(M/logM)*(logN-logL)	(M/logM)*(logN-logL)
	O(single delete)	-	(M/logM)*(logN-logL)	(M/logM)*(logN-logL)	(M/logM)*(logN-logL)
	O(series insert)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)
	O(series delete)	-	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)
	O(file)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)	N*(M/logM)*(logN-logL)
11 (Separable Chaining Hash)	O(single insert)	1	1	1	1
	O(single delete)	-	lambda	1	lambda
	O(series insert)	N	N	N	N
	O(series delete)	-	N*lambda	N	N*lambda
	O(file)	N	N*lambda	N	N*lambda
12 (Quadractic Probing Hash)	O(single insert)	1	1	1	1/(1-lambda)
	O(single delete)	-	1	1	1
	O(series insert)	N	N	N	N/(1-lambda)
	O(series delete)	-	N	N	N
	O(file)	N	N	N	N/(1-lambda)
13 (Binary Heap)	O(single insert)	1	1	1	logN
	O(single delete)	-	logN	logN	logN
	O(series insert)	N	N	N	NlogN
	O(series delete)	-	NlogN	NlogN	NlogN
	O(file)	N	NlogN	NlogN	NlogN
14 (Quadratic Pointer Hash)	O(single insert)	1	1	1	1/(1-lambda)
	O(single delete)	-	1	1	1
	O(series insert)	N	N	N	N/(1-lambda)
	O(series delete)	-	N	N	N
	O(file)	N	N	N	N/(1-lambda)