CS 5012: Open and Closed Hashing In-Class Activity

Q1) Insert the following keys into the hash table of size 13 below, using each conflict resolution method: (75 points)

h(k) = k mod 13

18   41   22   44   59   32   31   73   85   94   105   117

Hash table: Linear Probing

0	1	2	3	4	5	6	7	8	9	10	11	12
117	105	41	94		18	44	59	32	22	31	73	85

Hash table: Quadratic Probing

0	1	2	3	4	5	6	7	8	9	10	11	12
117	31	41	94	105	18	44	59	73	22	32	85	

Hash table: Chaining

0	1	2	3	4	5	6	7	8	9	10	11	12
117	105	41	94		18	32	59	73	22			
					44		85					
					31							

Q2) Insert the following keys into the hash table of size 13 below, using linear probing conflict resolution method:(25 points)

h(k) = k mod 13

530   609   527   530   513   548   446   539   436   424
"apple", "banana", "grape", "mango", "peach", "berry", "plum", "melon", "kiwi", "pear"

0	1	2	3	4	5	6	7	8	9	10	11	12
pear		berry		plum		peach	grape	melon	kiwi	apple	banana	mango