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ICS 211 #26
12/06/17

1. 43 % 7 = 1 → list[1] = 43
   22 % 7 = 1 → COLLISION → list[2] = 22
   15 % 7 = 1 → COLLISION → list[0] = 15
   8 % 7 = 1 → COLLISION → list[3] = 8
   12 % 7 = 5 → list[5] = 12
   54 % 7 = 5 → COLLISION → list[6] = 54
   49 % 7 = 0 → COLLISION → list[4] = 49

   list[0] = 15, list[1] = 43, list[2] = 22, list[3] = 8, list[4] = 49, list[5] = 12, list[6] = 54

2. h(k, i) = (h(k) + i + i²) % 7
   43 % 7 = 1 → list[1] = 43
   22 % 7 = 1 → COLLISION → list[3] = 22
   15 % 7 = 1 → COLLISION → list[7] = 15
   8 % 7 = 1 → COLLISION → list[60] = 8
   12 % 7 = 5 → list[5] = 12
   54 % 7 = 5 → COLLISION→ list[11] = 54
   49 % 7 = 0 → list[0] = 49

   list[0] = 49, list[1] = 43, list[3] = 22, list[4] = 54, , list[5] = 12, list[6] = 8, list[7] = 15

3. h(k, i) = ((h(k) + i + h(k))) % 7
   43 % 7 = 1 → list[1] = 43
   22 % 7 = 1 → COLLISION → list[2] = 22
   15 % 7 = 1 → COLLISION → list[3] = 15
   8 % 7 = 1 → COLLISION → list[5] = 8
   12 % 7 = 5 → COLLLISION → list[4] = 12
   54 % 7 = 5 → COLLISION→ list[6] = 54
   49 % 7 = 0 → list[0] = 49

   list[0] = 49, list[1] = 43, list[2] = 22, list[3] = 15, list[4] = 12, list[5] = 8, list[6] = 54

4. h(k, i) = ((h(k) + i + h(k)) % 7) / 3
   43 % 7 = 1 → list[0] = 43
   22 % 7 = 1 → COLLISION → list[1] = 22
   15 % 7 = 1 → COLLISION → list[2] = 15
   8 % 7 = 1 → COLLISION → list[3] = 8
   12 % 7 = 5 → COLLLISION → list[4] = 12
   54 % 7 = 5 → COLLISION→ list[5] = 54
   49 % 7 = 0 → list[6] = 49

   list[0] = 43, list[1] = 22, list[2] = 15, list[3] = 8, list[4] = 12, list[5] = 54, list[6] = 49

5. 43 % 7 = 1 → list[1][0] = 43
   22 % 7 = 1 → COLLISION → list[1][1] = 22
   15 % 7 = 1 → COLLISION → list[1][2] = 15

8 % 7 = 1 → COLLISION → list[1][3] = 8
12 % 7 = 5 → COLLLISION → list[5][0] = 12
54 % 7 = 5 → COLLISION→ list[5][1] = 54
49 % 7 = 0 → list[0] = 49

list[0] = 49
list[1][0] = 43, list[1][1] = 22, list[1][2] = 15, list[1][3] = 8
list[5][0] = 12, list[5][1] = 54