Part 1

Store the following keys and values into a data structure(s) of your choice (array(s), vector(s), etc.) using the double hashing algorithm. Output what data structure you chose. Use a map (not a dictionary).

h(k) = k mod 29

h’(k) = 17 - k mod 17

N = 29 (size of the array)

Use the following input:

18 Mission Viejo

41 Laguna Niguel

22 San Clemente

44 Irvine

Delete key 41

58 Lake Forest

32 San Diego

49 Anaheim

Delete key 58

31 Los Angeles

17 Orange

72 Palms Springs

41 Riverside

Delete key 49

19 Brea

60 Santa Ana

35 Tustin

103 Oceanside

11 La Jolla

18 Del Mar

22 Aliso Viejo

49 Laguna Beach

Delete key 41

42 Vista

49 San Diego

99 San Juan

29 Dana Point

88 El Segundo

41 San Clemente

62 Laguna Hills

Print out your data structure after storing all the key, values nodes.

Part 2

Store the keys and values from part 1 into a data structure(s) of your choice (array(s), vector(s), etc.) using the quadratic hashing algorithm. Output what data structure you chose. Use a map (not a dictionary).

h(k) = k mod 31

Due March 7th