Instructor: Jun Yi

Due: 11/29, 11:00pm

Design a HashMap without using any built-in hash table libraries

1) (30 points) desgin functions to inserts a (key, value) pair into the HashMap. If the key already exists in the map, update the corresponding value.

2) (30 points) int get(int key) returns the value to which the specified key is mapped, or -1 if this map contains no mapping for the key

3) (40 points) void remove(key) removes the key and its corresponding value if the map contains the mapping for the key

Note: please analyze your time complexity for each function. You can wirte it as the comment or the function description.

Please do a simple test of all your methods once you finish it.