Implement a priority queue. In particular, you are asked to simulate a waiting line that forms in front o
a bank teller in a typical bank. Different customers have different priorities. A priority queue should
support the following functions (you must build these functions):

> • Insert(S,x) inserts the element x into the set S.
> • Maximum(S) returns the element of S with the largest key.
> • Extract_Max(S) removes and returns the element of S with the largest key.

Your program should be based on a heap structure. The input must accept the different customers and
their priorities (Customer Name and Customer Priority are two attributes that you must use). As an
output, the program should produce a list of the customers based on their priorities (decreasing order
You may assume priorities are integers.

This is a sample output.txt file (spaces separating customer names (no space after final name)):

Alan Paul

... for this input file (one customer and priority per line in this format):

Paul : 2
Alan : 5

You can break ties in any order if their priorities are the same.