**private** **static** <T> **void** insertInOrder(Queue<T> q, T x, Comparator<T> order) {

**boolean** in = **false**;

**int** idx = 0;

**while** (idx < q.length() && !in) {

**if** (order.compare(q.front(), x) > 0) {

q.enqueue(x);

in = **true**;

}

idx++;

T temp = q.dequeue();

q.enqueue(temp);

}

}

**public** **void** sort(Comparator<T> order) {

**int** n = order.length;

**for** (**int** j = 1; j < n; j++) {

**int** key = order[j];

**int** i = j-1;

**while** ((i > -1) && (order [i] > key)) {

order [i+1] = order [i];

i--;

}

order[i+1] = key;

}

}

A screenshot of a computer program

Description automatically generated