Heap - Exercise

Problem: Max Heap

Implement the following functions in a max heap of integers:

- void add(int H[], int val);
- int findMax(int H[]);
- int deleteMax(int H[]);
- int deleteAtIndex(int H[], int index);
- void sort(int H[], int *S);

The function ‘add’ should add ‘val’ to the max heap stored in H.

The function ‘findMax’ should return the maximum element in the heap.

The function ‘deleteMax’ should delete the maximum element in the heap and re-order H to satisfy the heap property.

The function ‘deleteAtIndex’ should delete the element available in H[index] and re-order H such that it satisfies the heap property.

The function ‘sort’ should use ‘deleteMax’ function sort the elements of H in descending order and store in S.