INSERT

IF root of BST is null

ASSIGN new node with passed bid to root

ELSE

CALL addNode method. Pass root and bid.

ENDIF

ADD NODE

IF the passed node’s bid’s ID is greater than the passed bid ID

IF passed node’s left pointer is null

ASSIGN new node with passed bid to node’s left pointer

ELSE

CALL this method again passing node’s left pointer and the bid

ENDIF

ELSE

IF passed node’s right pointer is null

ASSIGN new node with passed bid to node’s right pointer

ELSE

CALL this method again pass node’s right pointer and the bid

ENDIF

REMOVE NODE

IF passed node is null

RETURN node

ENDIF

IF passed bid ID is less than passed node’s bid’s id

ASSIGN return value of calling this method again with passed arguments of node’s left pointer and bid ID to Node’s left pointer

ELSE IF passed bid ID is greater than passed node’s bid’s id

ASSIGN return value of calling this method again with passed arguments of node’s right pointer and bid ID to Node’s right pointer

ELSE

IF node’s left pointer is null and node’s right pointer is null

DELETE node

ASSIGN null to node;

ELSE IF node’s left pointer is not null and null’s right pointer is null

ASSIGN node to temp pointer

ASSIGN node’s right pointer to node

DELETE temp

ELSE IF node’s left pointer is null and node’s right pointer is not null

ASSIGN node to temp pointer

ASSIGN node’s left pointer to node

DELETE temp

ELSE

ASSIGN node’s right pointer to temp

WHILE temp’s left pointer is not null

ASSIGN temp’s left pointer to temp

ENDWHILE

ASSIGN temp’s bid to node’s bid

ASSIGN node’s right pointer to the return value of calling this method again with passed arguments of node’s right pointer and temp’s bid’s bid ID.

SEARCH

ASSIGN root to “current” node pointer

WHILE current is not null

IF current’s bid’s bid ID equals the passed bid ID

RETURN current’s bid

ENDIF

IF passed bid ID is less than current’s bid’s bid ID

ASSIGN current’s left node to current

ELSE

ASSIGN current’s right node to current

ENDIF

ENDWHILE

CREATE new bid object

RETURN bid

IN ORDER

IF passed node is not null

CALL this method with passed argument of node’s left node

OUTPUT node’s bid info

CALL this method with passed argument of node’s right node

ENDIF