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START Create an empty binary search tree (BST)
FUNCTION insertContact(root, name, phone):
  IF root is NULL THEN root = createNewNode(name, phone)
  ELSE IF name < root.name THEN root.left = insertContact(root.left, name, phone)
  ELSE root.right = insertContact(root.right, name, phone)
  ENDIF
RETURN root
END FUNCTION

FUNCTION searchContact(root, name):
  IF root is NULL THEN RETURN "Contact not found"
  ELSE IF name == root.name THEN RETURN root.phone
  ELSE IF name < root.name THEN RETURN searchContact(root.left, name)
  ELSE RETURN searchContact(root.right, name)
  ENDIF
END FUNCTION

FUNCTION inorderTraversal(root):
  IF root is NOT NULL THEN
    inorderTraversal(root.left)
    DISPLAY root.name + ": " + root.phone
    inorderTraversal(root.right)
  ENDIF
END FUNCTION

FUNCTION deleteContact(root, name):
  IF root is NULL THEN RETURN root
  ELSE IF name < root.name THEN root.left = deleteContact(root.left, name)
  ELSE IF name > root.name THEN root.right = deleteContact(root.right, name)
  ELSE IF root.left is NULL THEN
    temp = root.right
    free(root)
    RETURN temp
  ELSE IF root.right is NULL THEN
    temp = root.left
    free(root)
    RETURN temp
  ELSE
    temp = findMinValueNode(root.right)
    root.name = temp.name
    root.phone = temp.phone
    root.right = deleteContact(root.right, temp.name)
  ENDIF
ENDIF
RETURN root
END FUNCTION

FUNCTION findMinValueNode(root):
  current = root
  WHILE current.left != NULL DO
    current = current.left
  ENDWHILE
RETURN current
END FUNCTION
END
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