Question: Grocery Store Inventory Management

You are working on a simple inventory management system for a grocery store. Your task is to write pseudo-code that performs the following operations:

1. **Add a New Item**: Add a new item to the inventory with its name, quantity, and price.
2. **Update Quantity**: Update the quantity of an existing item in the inventory.
3. **Remove an Item**: Remove an item from the inventory.
4. **View Inventory**: Display the list of all items with their details (name, quantity, price).
5. **Search for an Item**: Search for an item by its name and display its details if found.

Assumptions:

- The inventory can hold a maximum of 100 items.
- Each item has a unique name.

Requirements:

- Define the structure to store the inventory items.
- Write pseudo-code for each of the five operations.
- Ensure the pseudo-code is clear and logically correct.

Pseudo-code Template:

```
1. Structure Definition:
   Define an Item with attributes:
     - name (String)
     - quantity (Integer)
     - price (Float)
   Define an Inventory as a list of Items

2. Add a New Item:
   Function addItem(inventory, name, quantity, price):
     If the inventory is full:
```

```
        Print "Inventory is full, cannot add new item."
        Return
    If item with the given name already exists in the inventory:
        Print "Item already exists."
        Return
    Create a new Item with given name, quantity, and price
    Add the new Item to the inventory
    Print "Item added successfully."

3. Update Quantity:
  Function updateQuantity(inventory, name, quantity):
    For each item in the inventory:
      If item name matches the given name:
        Update the item's quantity with the given quantity
        Print "Quantity updated successfully."
        Return
    Print "Item not found."

4. Remove an Item:
  Function removeItem(inventory, name):
    For each item in the inventory:
      If item name matches the given name:
        Remove the item from the inventory
        Print "Item removed successfully."
        Return
    Print "Item not found."

5. View Inventory:
  Function viewInventory(inventory):
    If inventory is empty:
      Print "Inventory is empty."
      Return
    For each item in the inventory:
      Print item name, quantity, and price

6. Search for an Item:
  Function searchItem(inventory, name):
    For each item in the inventory:
      If item name matches the given name:
        Print item name, quantity, and price
        Return
    Print "Item not found."
```

Example Usage:

```
inventory = [ ]

addItem(inventory, "Apple", 50, 0.5)
addItem(inventory, "Mango", 30, 0.3)
viewInventory(inventory)
updateQuantity(inventory, "Apple", 60)
removeItem(inventory, "Mango")
searchItem(inventory, "Apple")
```
