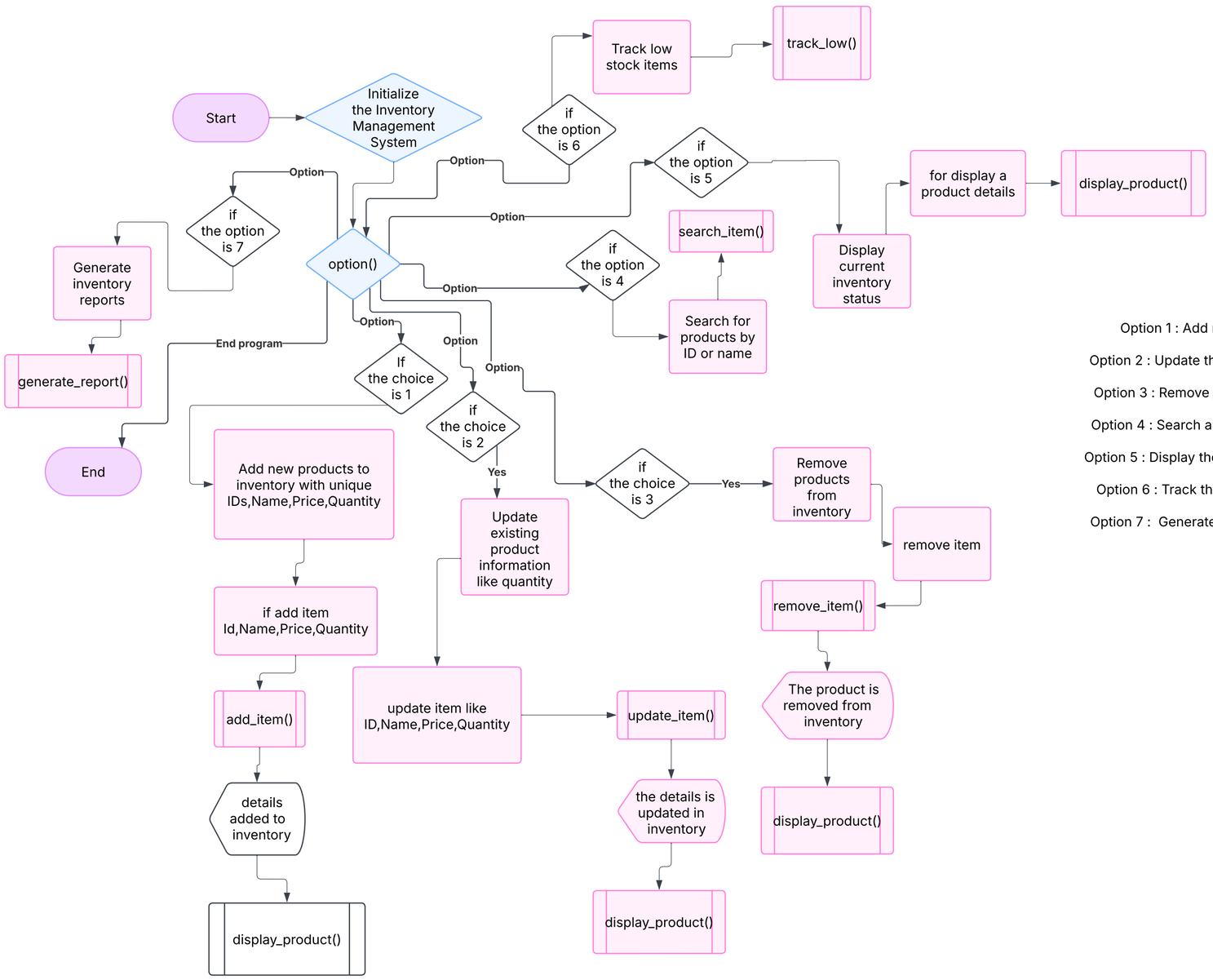

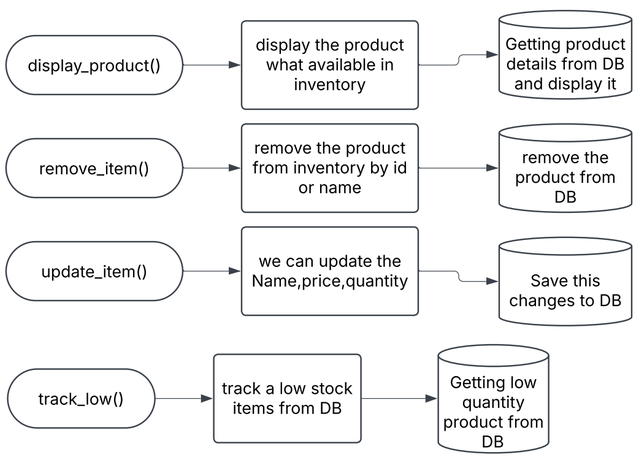

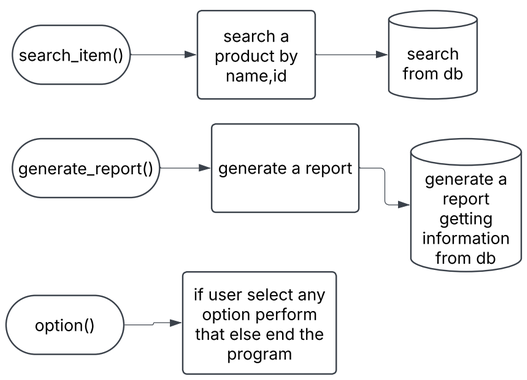

Option 1 : Add new product

Option 2 : Update the product details

Option 3 : Remove product from DB

Option 4 : Search a product from DB

Option 5 : Display the product from DB

Option 6 : Track the low stock item

Option 7 : Generate inventory report

```
# Add Item
def add_item(item_id, name, price, quantity):
inventory[item_id] = {"name": name, "price": price, "quantity":
quantity}
print(f"{name} added!\n")
```

```
# Update Item
def update_item(item_id, quantity):
if item_id in inventory:
inventory[item_id]["quantity"] = quantity
print(f"Item {item_id} updated!\n")
else:
print("Item not found!\n")
```

```
# Remove Item
def remove_item(item_id):
if item_id in inventory:
del inventory[item_id]
print(f"Item {item_id} removed!\n")
else:
print("Item not found!\n")
```

```
# Search Item
def search_item(search):
for item_id, details in inventory.items():
if item_id == search or details["name"].lower()
== search.lower():
print(f"Found - {details}\n")
return
print("Item not found!\n")
```

```
# Display Inventory
def display_inventory():
print("\nCurrent Inventory:")
for item_id, details in inventory.items():
print(f"ID: {item_id}, {details}")
print()
```

```
# Track Low Stock Items
def track_low(threshold=5):
print("\nLow Stock Items:")
for item_id, details in inventory.items():
if details["quantity"] <= threshold:
print(f"ID: {item_id}, {details}")
print()
```

```
# Function to generate inventory report
def generate_inventory_report():

if not inventory:
print("Inventory is empty!\n")
return
total_items = len(inventory)
total_value = sum(details["price"] * details["quantity"] for details in
inventory.values())
print(f"Total Items in Inventory: {total_items}")
print(f"Total Inventory Value: ${total_value:.2f}\n")
print("Item List:")
print(f"{'ID':<10} {'Name':<15} {'Price':<10} {'Quantity':<10} {'Total Value':<10}")
print("-" * 55)
for item_id, details in inventory.items():
total_item_value = details["price"] * details["quantity"]
print(f"{item_id:<10} {details['name']:<15} ${details['price']:<10.2f}
{details['quantity']:<10} ${total_item_value:<10.2f}")
```

```
# Function to show options and perform actions
def menu():
while True:
print("\nInventory Management System")
print("1. Add Item")
print("2. Update Item")
print("3. Remove Item")
print("4. Search Item")
print("5. Display Inventory")
print("6. Track Low Stock Items")
print("7. Generate Inventory Report")
choice = input("Enter your choice: ")
if choice == "1":
add_item()
elif choice == "2":
update_item()
elif choice == "3":
remove_item()
elif choice == "4":
search_item()
elif choice == "5":
display_inventory()
elif choice == "6":
track_low_stock()
elif choice == "7":
print("Generating inventory report...\n")
else:
print("Invalid choice! Exiting
program...\n")
break
```