```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

struct Product {
    int id;
    char name[100];
    int quantity;
    float price;
};

void addProduct(struct Product *inventory, int *count) {
    if (*count >= 100) {
        printf("Inventory is full. Cannot add more products.\n");
        return;
    }

    struct Product newProduct;

    printf("Enter product details:\n");
    printf("Product ID: ");
    scanf("%d", &newProduct.id);
    printf("Product Name: ");
    scanf(" %[^\n]", newProduct.name);
    printf("Quantity: ");
    scanf("%d", &newProduct.quantity);
    printf("Price: ");
    scanf("%f", &newProduct.price);
```

```
    inventory[*count] = newProduct;
    (*count)++;

    printf("Product added successfully.\n");
}

void updateProduct(struct Product *inventory, int count) {
    int productId;
    int found = 0;

    printf("Enter the product ID to update: ");
    scanf("%d", &productId);

    for (int i = 0; i < count; i++) {
        if (inventory[i].id == productId) {
            printf("Enter new details for the product:\n");
            printf("Product Name: ");
            scanf(" %[^\n]", inventory[i].name);
            printf("Quantity: ");
            scanf("%d", &inventory[i].quantity);
            printf("Price: ");
            scanf("%f", &inventory[i].price);

            printf("Product details updated successfully.\n");
            found = 1;
            break;
        }
    }
```

```
    if (!found) {
        printf("Product not found.\n");
    }
}

void deleteProduct(struct Product *inventory, int *count) {
    int productId;
    int found = 0;

    printf("Enter the product ID to delete: ");
    scanf("%d", &productId);

    for (int i = 0; i < *count; i++) {
        if (inventory[i].id == productId) {
            for (int j = i; j < *count - 1; j++) {
                inventory[j] = inventory[j + 1];
            }

            (*count)--;
            printf("Product deleted successfully.\n");
            found = 1;
            break;
        }
    }

    if (!found) {
        printf("Product not found.\n");
    }
}
```

```
void displayInventory(struct Product *inventory, int count) {
    if (count == 0) {
        printf("Inventory is empty.\n");
        return;
    }

    printf("Product Inventory:\n");
    printf("ID\tName\tQuantity\tPrice\n");
    for (int i = 0; i < count; i++) {
        printf("%d\t%s\t%d\t\t%.2f\n", inventory[i].id, inventory[i].name, inventory[i].quantity,
inventory[i].price);
    }
}

int main() {
    struct Product inventory[100];
    int count = 0;
    int choice;

    printf("Inventory Management System\n");

    while (1) {
        printf("\nSelect an option:\n");
        printf("1. Add a product\n");
        printf("2. Update a product\n");
        printf("3. Delete a product\n");
        printf("4. Display inventory\n");
        printf("5. Exit\n");
```

```
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                addProduct(inventory, &count);
                break;
        case 2:
            updateProduct(inventory, count);
            break;
        case 3:
            deleteProduct(inventory, &count);
            break;
        case 4:
            displayInventory(inventory, count);
            break;
        case 5:
            printf("Exiting program...\n");
            return 0;
        default:
            printf("Invalid choice. Please try again.\n");
    }
}
return 0;
}
```