Milestone 4

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LOOM Video Link: [Milestone 4 Presentation](https://www.loom.com/share/bde14440649e4ac7885d84b70d5482dc)

UML Class Diagram:

A picture containing graphical user interface

Description automatically generated

All Code for Inventory Project:

using System;

using System.Collections.Generic;

namespace InventoryManager

{

class Manager

{

static void Main(string[] args)

{

InventoryManager lbInventory = new InventoryManager();

int numSelect;

for (; ; )

{

Console.WriteLine("1 - Add Item");

Console.WriteLine("2 - Show Items");

Console.WriteLine("3 - Remove Item");

Console.WriteLine("4 - Search Item by Name");

Console.WriteLine("5 - Search Item by Price");

Console.WriteLine("6 - Edit / Restock Item");

Console.WriteLine("7 - Exit");

Console.WriteLine("Select Option");

numSelect = Convert.ToInt32(Console.ReadLine());

switch (numSelect)

{

case 1:

lbInventory.addItem();

break;

case 2:

lbInventory.showItem();

break;

case 3: lbInventory.removeItem();

break;

case 4: Console.WriteLine("Enter item name: ");

string n = Console.ReadLine();

lbInventory.searchItemName(n);

break;

case 5: Console.WriteLine("Enter item price: ");

double p = Convert.ToDouble(Console.ReadLine());

lbInventory.searchItemPrice(p);

break;

case 6: Console.WriteLine("Enter item name to edit: ");

string n2 = Console.ReadLine();

lbInventory.editItem(n2);

break;

case 7: Environment.Exit(0);

break;

}

}

}

}

class Item

{

string itemName;

double itemPrice;

int itemQty;

public Item(string n, double p, int q)

{

Name = n; Price = p; Qty = q;

}

public string Name { get => itemName; set => itemName = value; }

public double Price { get => itemPrice; set => itemPrice = value; }

public int Qty { get => itemQty; set => itemQty = value; }

}

class InventoryManager

{

List<Item> lbInventory = new List<Item>();

public void addItem()

{

string n;

double p;

int q;

Console.WriteLine("Enter Item Name: ");

n = Console.ReadLine();

Console.WriteLine("Enter Item Price: ");

p = Convert.ToDouble(Console.ReadLine());

Console.WriteLine("Enter Item Quantity: ");

q = Convert.ToInt32(Console.ReadLine());

Item item = new Item(n, p, q);

lbInventory.Add(item);

}

public void showItem()

{

string s = String.Format("{0,10}{1,10}{2,10}", "name", "price", "quantity");

Console.WriteLine(s + "\n");

foreach (Item item in lbInventory)

{

string s1 = String.Format("{0,10}{1,10}{2,10}", item.Name, item.Price, item.Qty);

Console.WriteLine(s1 + "\n");

}

}

public void removeItem()

{

Console.WriteLine("Enter Item to Remove: ");

string n = Console.ReadLine();

int id = 0;

for (int i = 0; i < lbInventory.Count; i++)

{

if (lbInventory[i].Name.Equals(n))

{

lbInventory.RemoveAt(i);

Console.WriteLine("Item Removed from Inventory");

id++;

}

}

if (id == 0)

{

Console.WriteLine("Item was not found");

}

}

public void searchItemName(string n)

{

int id = 0;

string s = String.Format("{0,10}{1,10}{2,10}", "name", "price", "quantity");

Console.WriteLine(s + "\n");

foreach (Item item in lbInventory)

{

if (item.Name.Equals(n))

{

string str = String.Format("{0,10}{1,10}{2,10}", item.Name, item.Price, item.Qty);

Console.WriteLine(str + "\n");

id = 1;

}

}

if (id == 0)

{

Console.WriteLine("Item was not found");

}

}

public void searchItemPrice(double p)

{

int id = 0;

string s = String.Format("{0,10}{1,10}{2,10}", "Name", "Price", "Quantity");

Console.WriteLine(s + "\n");

foreach (Item item in lbInventory)

{

if (item.Price.Equals(p))

{

string str = String.Format("{0,10}{1,10}{2,10}", item.Name, item.Price, item.Qty);

Console.WriteLine(str + "\n");

id = 1;

}

}

if (id == 0)

{

Console.WriteLine("Item was not found");

}

}

public void editItem(string n)

{

Console.WriteLine("Enter new quantity for item: ");

string n2 = Console.ReadLine();

int q = Convert.ToInt32(n2);

foreach (Item item in lbInventory)

{

if (item.Name.Equals(n))

{

item.Qty = q;

Console.WriteLine("Item restocked");

}

}

}

}

}