Antowyn Cauley II

CS 441 – Software Engineering

MW 4:00-5:15

Midterm Personal Project Write

Working on this group project was a first for me when it comes to coding and designing a program. I had never worked on something of this scale, either individually or in a group. First, I want to start by saying that the people I worked with were all great. It was a crazy journey from the first day of class when we first met each other, until now, nearing the end of the semester. I really was never a proponent of group assignments, because I like the feeling of working alone, but this group assignment really changed my perspective on it. Participating in this group assignment really taught me some concepts along the way.

The first thing I learned was that four months was not a long enough period to add in all the ideas and concepts we originally had for the program. I remember you telling us to add in a lot of ideas in the beginning, and as the deadline started coming closer to scrap whatever is not that important. This project really has me understanding why the development cycle of a program takes years to happen. Making sure all the code works with each other and the graphical user interface working alongside the code doesn't just happen in a few months, especially if you're creating code from scratch. So, all in all, the number one thing I learned was having to scrap all the unimportant things and just add the important stuff.

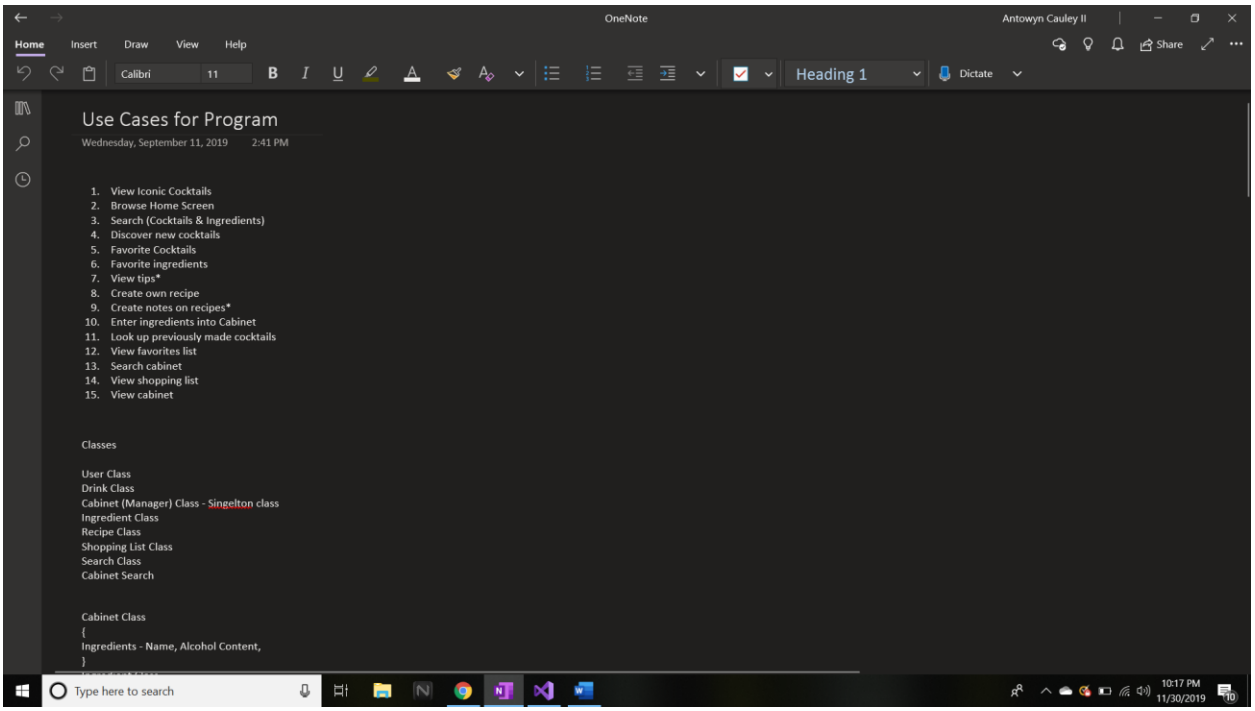
Another thing I noticed was that the hardest part of working on the group assignment is just getting everyone together and getting everyone's ideas on the same page. With everyone working on different parts of the program, it was quite difficult to make sure that my code that I type up can work

perfectly with someone else's code that they were typing up. GitHub was perfect in this scenario, and this was the first time I was introduced to it as well.

I contributed a good portion of the code for this group project. I designed the Drink class, as well as a Read class that reads different drinks from a text file and stores them in a container called Maps. Attached to this will be screenshots on the code that I worked on. I also developed a lot of the use cases that we originally came up with. We ended up with 15 original use cases for our program. I wrote in detail a good portion of the use cases as well. I came up with the Search and Favorite Cocktails search cases. The UML design that we chose was the sequence diagram. We figured this was the way to go because the user would have a lot of interaction with the program. The user/actor could interact with different cocktails, as well as search and favorite them. The diagram showed in different ways that the actor could interact with the program.

For the coding portion, I worked a lot on the actual drink class and the recipe class. I also made another class called "Read" that could read a text file in the format that I created, and in a while loop create drink objects and store them all into a map container. This map is implemented as a binary search tree, so storage and speed for searching for these drinks is optimal. From this moment on, I plan to help my group with the GUI because that is where we were having the most trouble with, mainly because most of us didn't really know it at all starting this group project. I also plan on helping mostly with our presentation with the professor soon.

Attached to the next pages are snippets of code, UML and use cases that I worked on.


OneNote
Antowyn Cauley II
Home
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11
Heading 1
Dictate
Use Cases for Program
Wednesday, September 11, 2019 2:41 PM
1. View Iconic Cocktails
2. Browse Home Screen
3. Search (Cocktails & Ingredients)
4. Discover new cocktails
5. Favorite Cocktails
6. Favorite ingredients
7. View tips*
8. Create own recipe
9. Create notes on recipes*
10. Enter ingredients into Cabinet
11. Look up previously made cocktails
12. View favorites list
13. Search cabinet
14. View shopping list
15. View cabinet
Classes
User Class
Drink Class
Cabinet (Manager) Class - Singelton class
Ingredient Class
Recipe Class
Shopping List Class
Search Class
Cabinet Search
Cabinet Class
{
Ingredients - Name, Alcohol Content,
}
Type here to search
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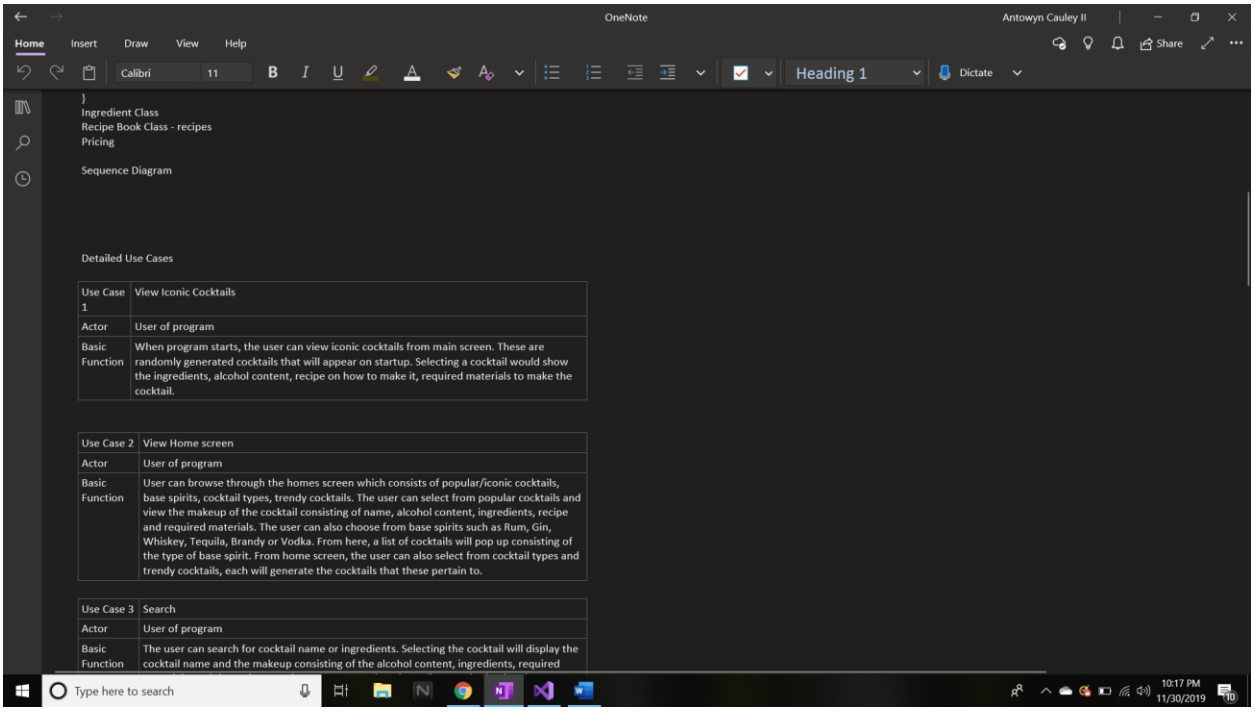
11/30/2019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Dictate
}
Ingredient Class
Recipe Book Class - recipes
Pricing
Sequence Diagram
Detailed Use Cases
Use Case 1 | View Iconic Cocktails
Actor | User of program
Basic Function | When program starts, the user can view iconic cocktails from main screen. These are randomly generated cocktails that will appear on startup. Selecting a cocktail would show the ingredients, alcohol content, recipe on how to make it, required materials to make the cocktail.
Use Case 2 | View Home screen
Actor | User of program
Basic Function | User can browse through the homes screen which consists of popular/iconic cocktails, base spirits, cocktail types, trendy cocktails. The user can select from popular cocktails and view the makeup of the cocktail consisting of name, alcohol content, ingredients, recipe and required materials. The user can also choose from base spirits such as Rum, Gin, Whiskey, Tequila, Brandy or Vodka. From here, a list of cocktails will pop up consisting of the type of base spirit. From home screen, the user can also select from cocktail types and trendy cocktails, each will generate the cocktails that these pertain to.
Use Case 3 | Search
Actor | User of program
Basic Function | The user can search for cocktail name or ingredients. Selecting the cocktail will display the cocktail name and the makeup consisting of the alcohol content, ingredients, required
Type here to search
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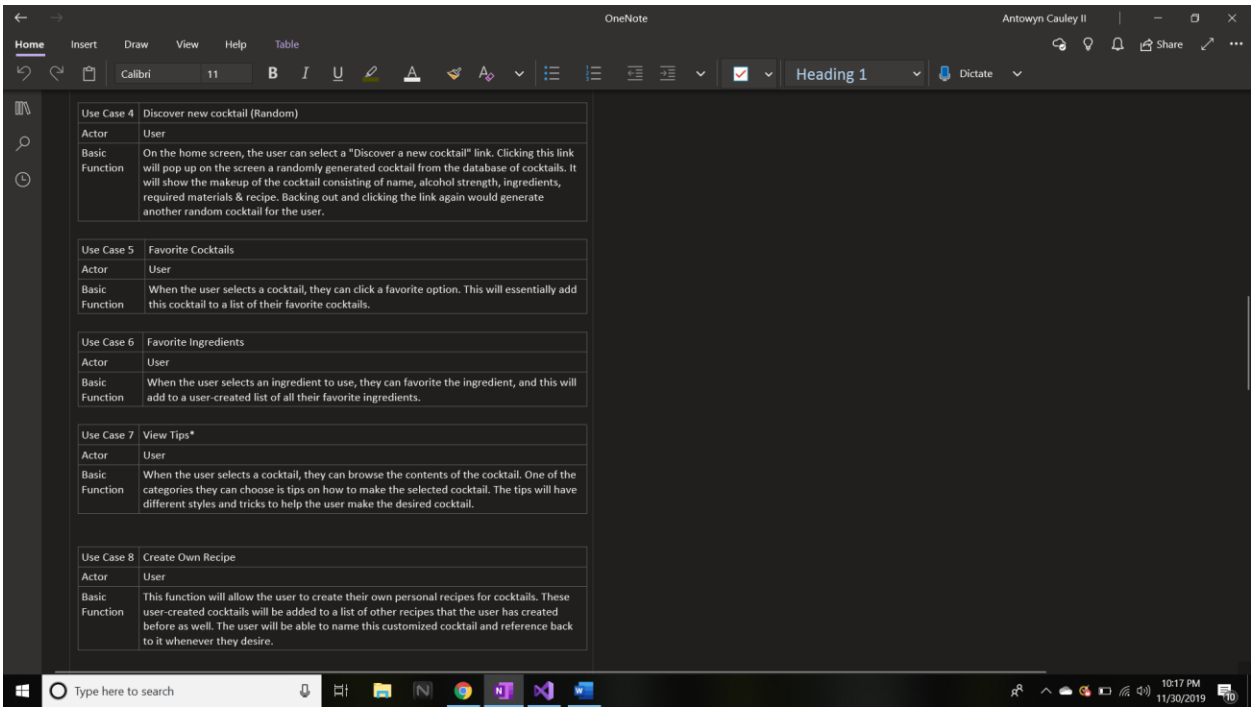
11/30/2019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11
Heading 1
Dictate
Use Case 4 | Discover new cocktail (Random)
Actor | User
Basic Function | On the home screen, the user can select a "Discover a new cocktail" link. Clicking this link will pop up on the screen a randomly generated cocktail from the database of cocktails. It will show the makeup of the cocktail consisting of name, alcohol strength, ingredients, required materials & recipe. Backing out and clicking the link again would generate another random cocktail for the user.
Use Case 5 | Favorite Cocktails
Actor | User
Basic Function | When the user selects a cocktail, they can click a favorite option. This will essentially add this cocktail to a list of their favorite cocktails.
Use Case 6 | Favorite Ingredients
Actor | User
Basic Function | When the user selects an ingredient to use, they can favorite the ingredient, and this will add to a user-created list of all their favorite ingredients.
Use Case 7 | View Tips*
Actor | User
Basic Function | When the user selects a cocktail, they can browse the contents of the cocktail. One of the categories they can choose is tips on how to make the selected cocktail. The tips will have different styles and tricks to help the user make the desired cocktail.
Use Case 8 | Create Own Recipe
Actor | User
Basic Function | This function will allow the user to create their own personal recipes for cocktails. These user-created cocktails will be added to a list of other recipes that the user has created before as well. The user will be able to name this customized cocktail and reference back to it whenever they desire.
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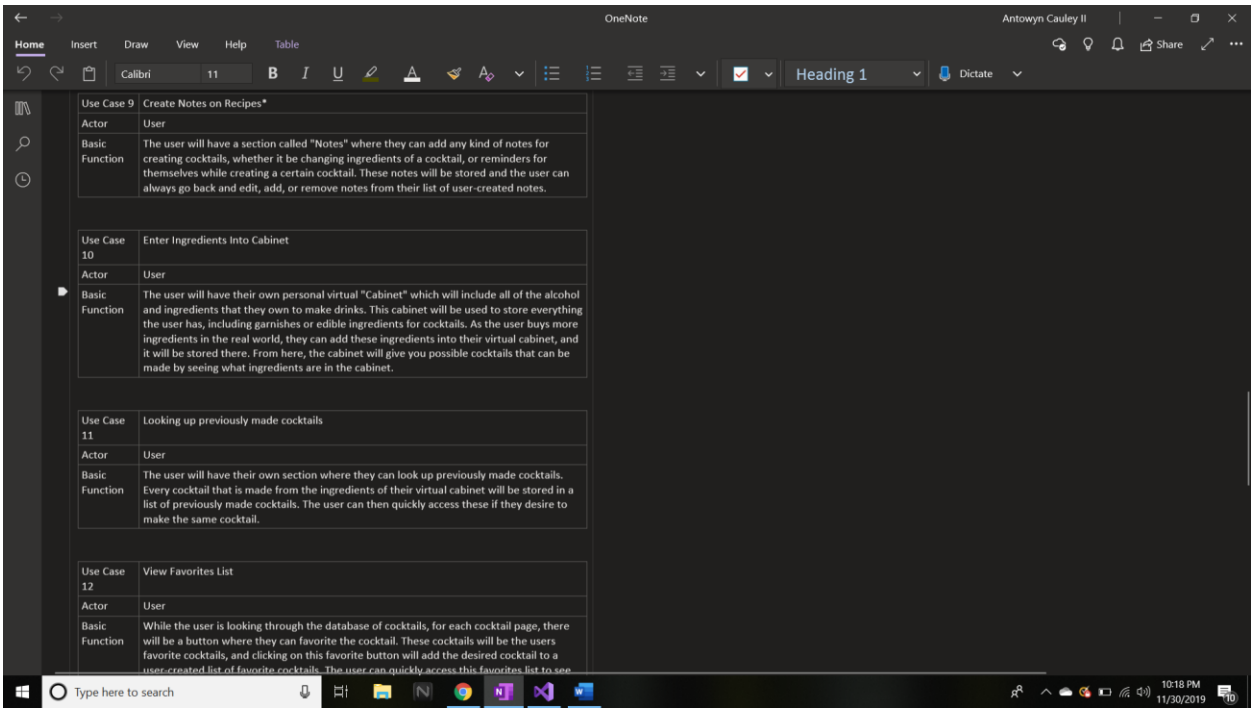
OneNote
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Home
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Help
Table
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Calibri
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Heading 1
Dictate
Use Case 9 | Create Notes on Recipes*
Actor | User
Basic Function | The user will have a section called "Notes" where they can add any kind of notes for creating cocktails, whether it be changing ingredients of a cocktail, or reminders for themselves while creating a certain cocktail. These notes will be stored and the user can always go back and edit, add, or remove notes from their list of user-created notes.
Use Case 10 | Enter Ingredients Into Cabinet
Actor | User
Basic Function | The user will have their own personal virtual "Cabinet" which will include all of the alcohol and ingredients that they own to make drinks. This cabinet will be used to store everything the user has, including garnishes or edible ingredients for cocktails. As the user buys more ingredients in the real world, they can add these ingredients into their virtual cabinet, and it will be stored there. From here, the cabinet will give you possible cocktails that can be made by seeing what ingredients are in the cabinet.
Use Case 11 | Looking up previously made cocktails
Actor | User
Basic Function | The user will have their own section where they can look up previously made cocktails. Every cocktail that is made from the ingredients of their virtual cabinet will be stored in a list of previously made cocktails. The user can then quickly access these if they desire to make the same cocktail.
Use Case 12 | View Favorites List
Actor | User
Basic Function | While the user is looking through the database of cocktails, for each cocktail page, there will be a button where they can favorite the cocktail. These cocktails will be the users favorite cocktails, and clicking on this favorite button will add the desired cocktail to a user-created list of favorite cocktails. The user can quickly access this favorites list to see
Type here to search
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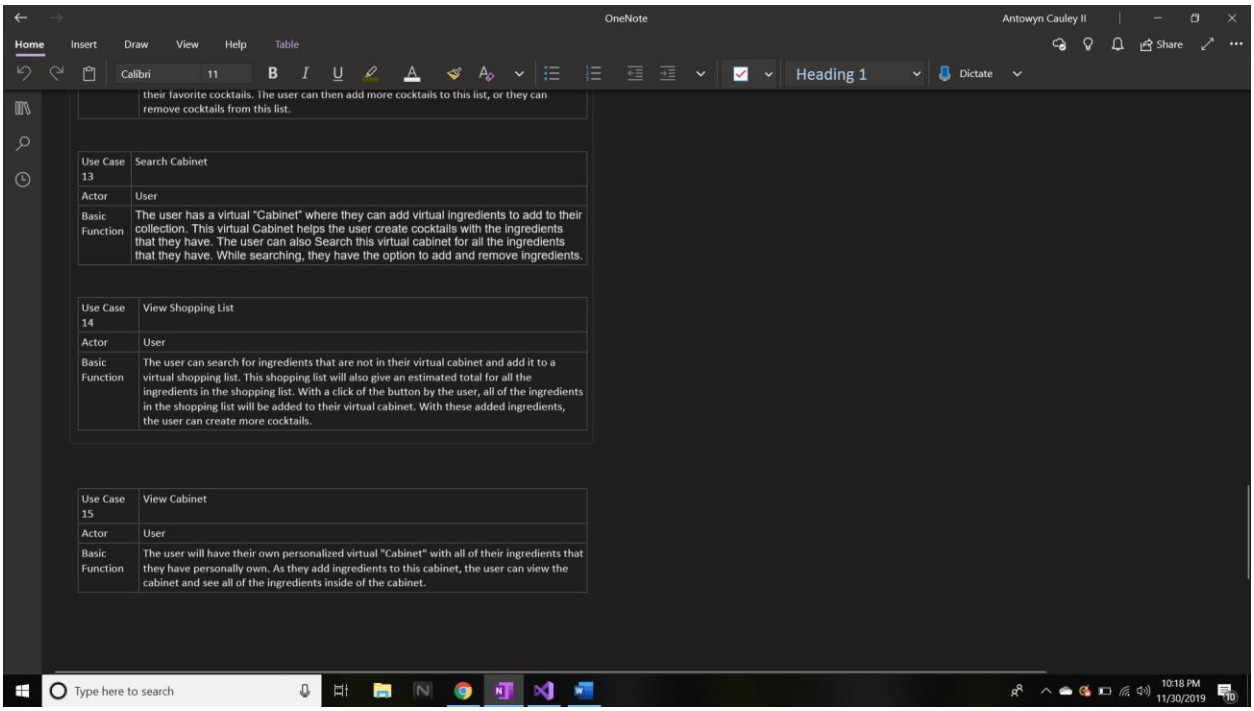
OneNote
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Home Insert Draw View Help Table
Heading 1
Dictate
their favorite cocktails. The user can then add more cocktails to this list, or they can remove cocktails from this list.
Use Case 13 | Search Cabinet
Actor | User
Basic Function | The user has a virtual "Cabinet" where they can add virtual ingredients to add to their collection. This virtual Cabinet helps the user create cocktails with the ingredients that they have. The user can also Search this virtual cabinet for all the ingredients that they have. While searching, they have the option to add and remove ingredients.
Use Case 14 | View Shopping List
Actor | User
Basic Function | The user can search for ingredients that are not in their virtual cabinet and add it to a virtual shopping list. This shopping list will also give an estimated total for all the ingredients in the shopping list. With a click of the button by the user, all of the ingredients in the shopping list will be added to their virtual cabinet. With these added ingredients, the user can create more cocktails.
Use Case 15 | View Cabinet
Actor | User
Basic Function | The user will have their own personalized virtual "Cabinet" with all of their ingredients that they have personally own. As they add ingredients to this cabinet, the user can view the cabinet and see all of the ingredients inside of the cabinet.
Type here to search
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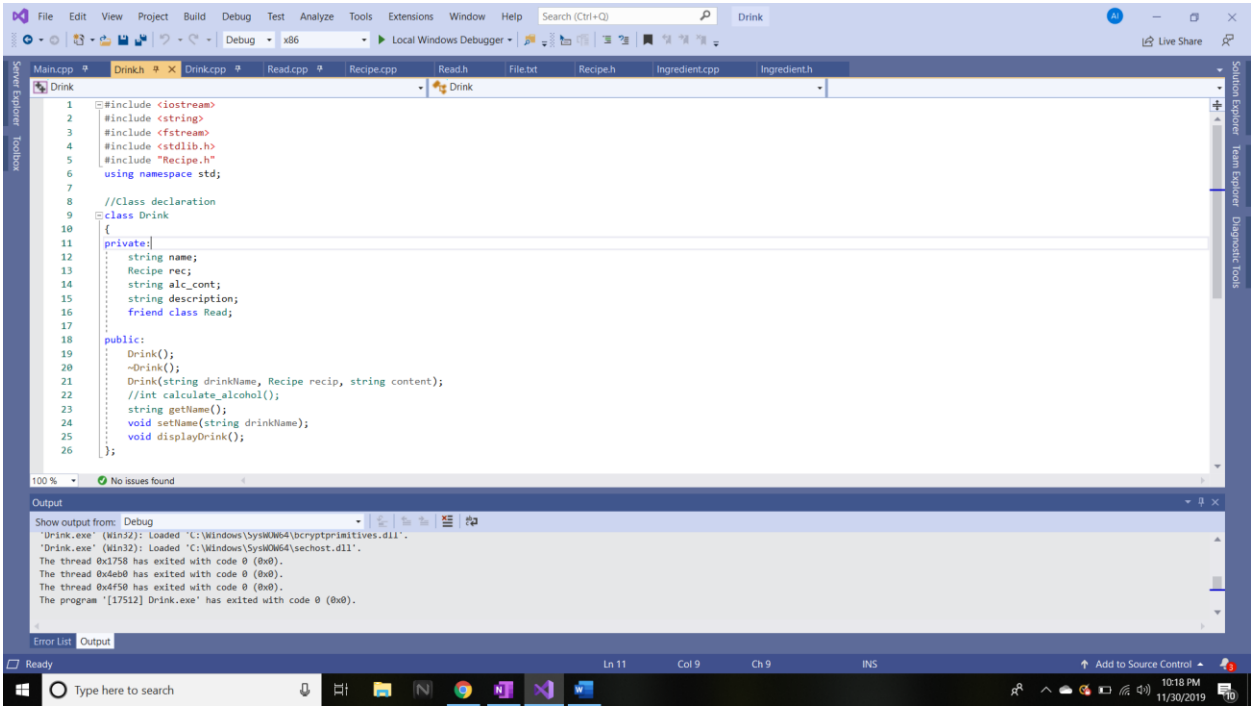
11/30/2019


File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink
Drink
#include <iostream>
#include <string>
#include <fstream>
#include <stdlib.h>
#include "Recipe.h"
using namespace std;
//Class declaration
class Drink
{
private:
string name;
Recipe rec;
string alc_cont;
string description;
friend class Read;
public:
Drink();
~Drink();
Drink(string drinkName, Recipe recip, string content);
//int calculate_alcohol();
string getName();
void setName(string drinkName);
void displayDrink();
};
100 %
No issues found
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
The thread 0x1758 has exited with code 0 (0x0).
The thread 0x4eb0 has exited with code 0 (0x0).
The thread 0x4f50 has exited with code 0 (0x0).
The program '[17512] Drink.exe' has exited with code 0 (0x0).
Error List Output
Ready
Ln 11 Col 9 Ch 9 INS
Add to Source Control
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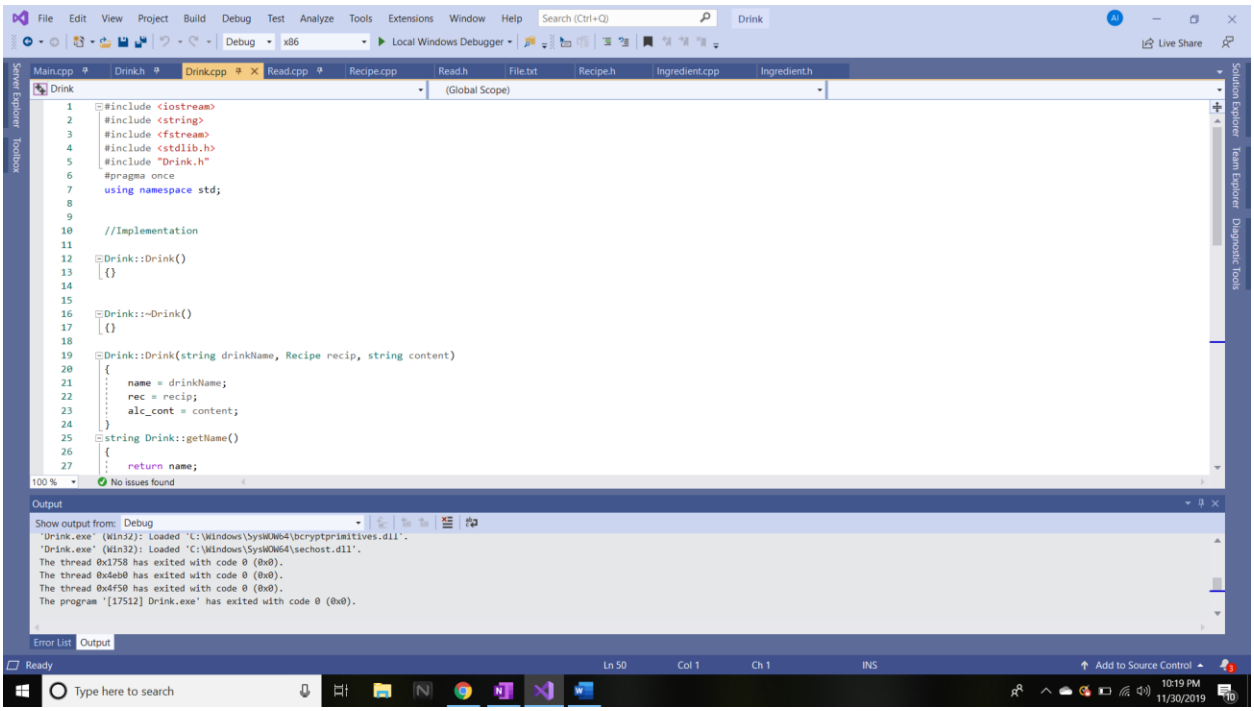
File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink (Global Scope)
#include <iostream>
#include <string>
#include <fstream>
#include <stdlib.h>
#include "Drink.h"
#pragma once
using namespace std;
//Implementation
Drink::Drink()
{}
Drink::~Drink()
{}
Drink::Drink(string drinkName, Recipe recip, string content)
{
name = drinkName;
rec = recip;
alc_cont = content;
}
string Drink::getName()
{
return name;
100 %
No issues found
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
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The thread 0x4f50 has exited with code 0 (0x0).
The program '[17512] Drink.exe' has exited with code 0 (0x0).
Error List Output
Ready
Ln 50 Col 1 Ch 1 INS
Add to Source Control
Type here to search
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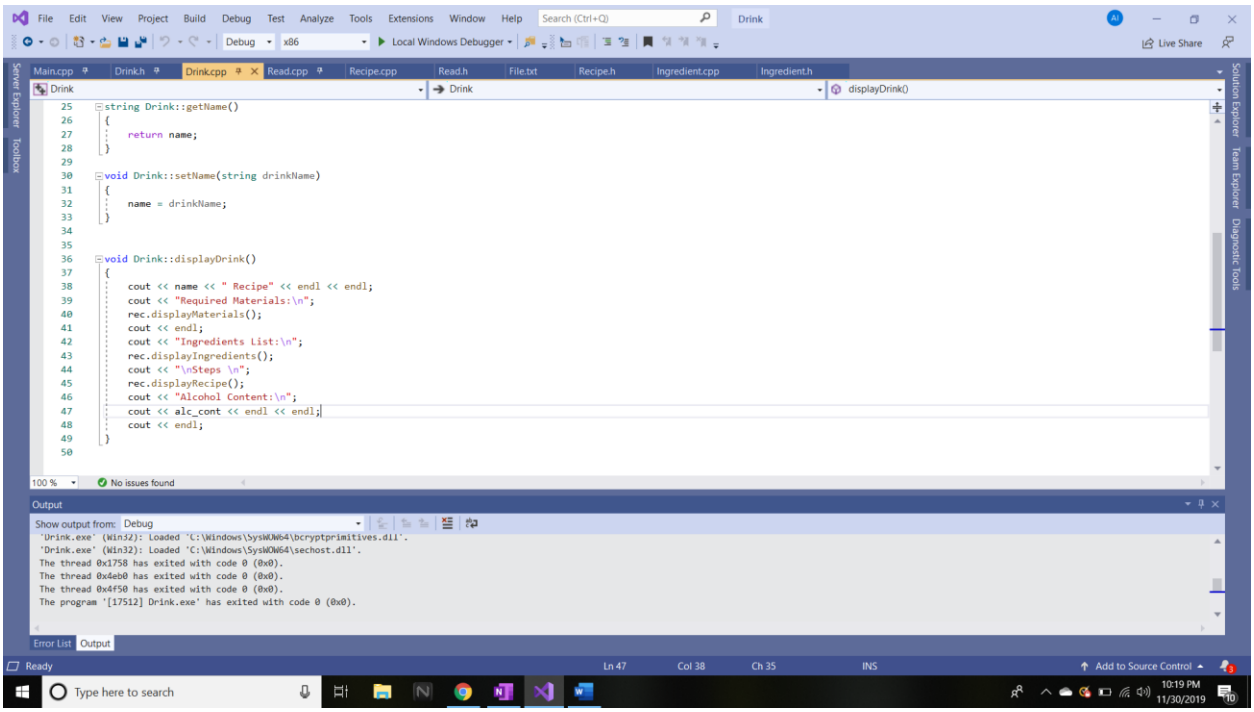
11/30/2019


File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink Drink displayDrink()
string Drink::getName()
{
return name;
}
void Drink::setName(string drinkName)
{
name = drinkName;
}
void Drink::displayDrink()
{
cout << name << " Recipe" << endl << endl;
cout << "Required Materials:\n";
rec.displayMaterials();
cout << endl;
cout << "Ingredients List:\n";
rec.displayIngredients();
cout << "\nSteps \n";
rec.displayRecipe();
cout << "Alcohol Content:\n";
cout << alc_cont << endl << endl;
cout << endl;
}
100 %
No issues found
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
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The thread 0x4eb0 has exited with code 0 (0x0).
The thread 0x4f50 has exited with code 0 (0x0).
The program '[17512] Drink.exe' has exited with code 0 (0x0).
Error List Output
Ready
Ln 47 Col 38 Ch 35 INS
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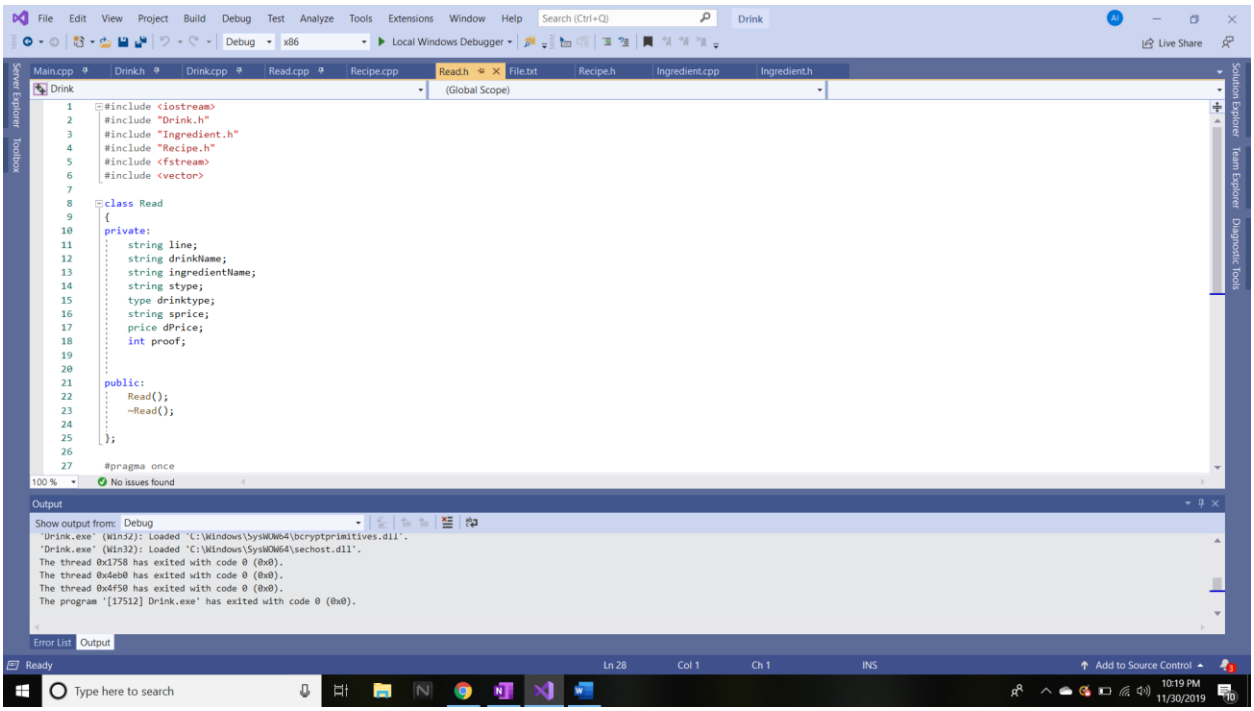
File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink (Global Scope)
#include <iostream>
#include "Drink.h"
#include "Ingredient.h"
#include "Recipe.h"
#include <fstream>
#include <vector>
class Read
{
private:
string line;
string drinkName;
string ingredientName;
string stype;
type drinktype;
string sprice;
price dPrice;
int proof;
public:
Read();
~Read();
};
#pragma once
100 %
No issues found
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
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The thread 0x4f50 has exited with code 0 (0x0).
The program '[17512] Drink.exe' has exited with code 0 (0x0).
Error List Output
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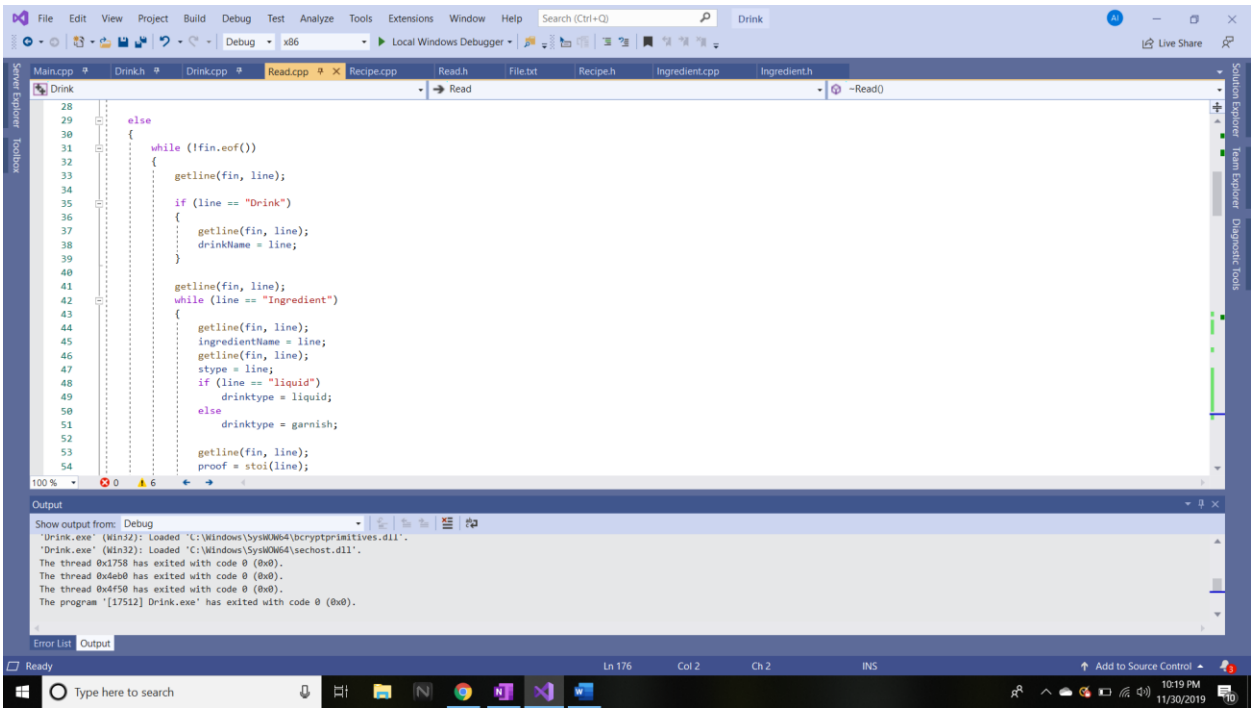
File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink Read ~Read()
else
{
while (!fin.eof())
{
getline(fin, line);
if (line == "Drink")
{
getline(fin, line);
drinkName = line;
}
getline(fin, line);
while (line == "Ingredient")
{
getline(fin, line);
ingredientName = line;
getline(fin, line);
stype = line;
if (line == "liquid")
drinktype = liquid;
else
drinktype = garnish;
getline(fin, line);
proof = stoi(line);
100 %
0 6
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
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The thread 0x4f50 has exited with code 0 (0x0).
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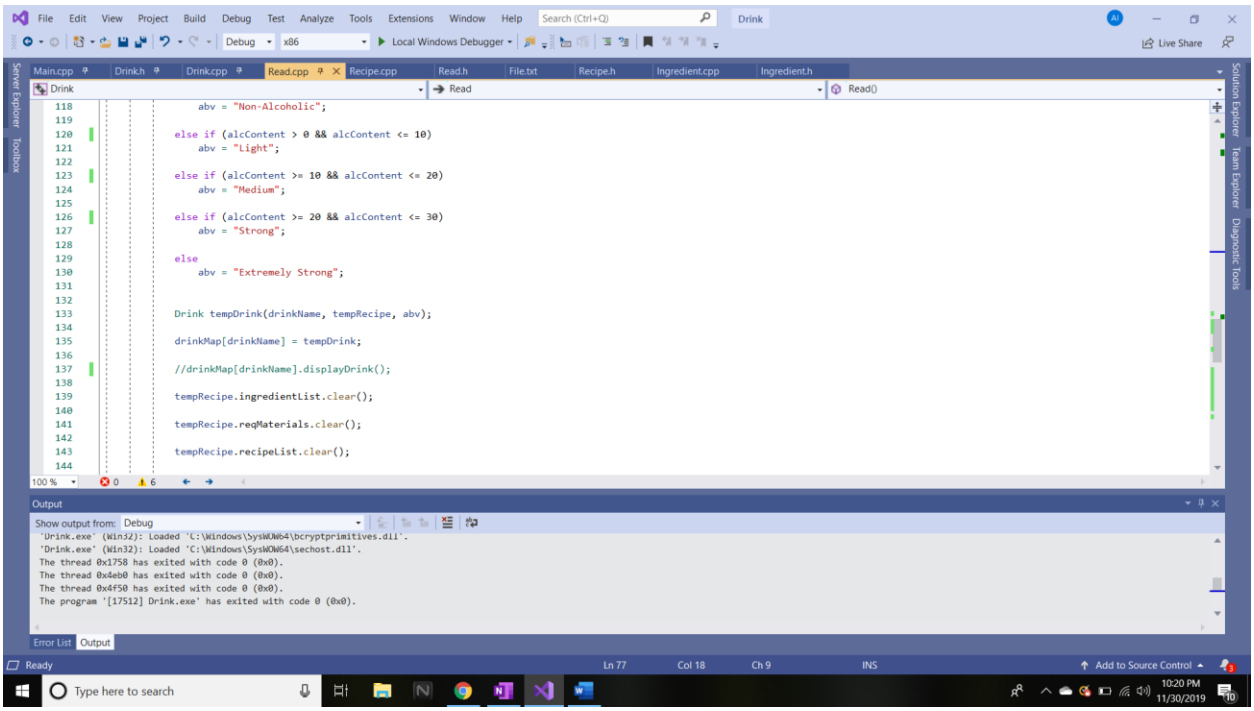
File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink Read Read()
abv = "Non-Alcoholic";
else if (alcContent > 0 && alcContent <= 10)
abv = "Light";
else if (alcContent >= 10 && alcContent <= 20)
abv = "Medium";
else if (alcContent >= 20 && alcContent <= 30)
abv = "Strong";
else
abv = "Extremely Strong";
Drink tempDrink(drinkName, tempRecipe, abv);
drinkMap[drinkName] = tempDrink;
//drinkMap[drinkName].displayDrink();
tempRecipe.ingredientList.clear();
tempRecipe.reqMaterials.clear();
tempRecipe.recipeList.clear();
100 %
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
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The thread 0x4eb0 has exited with code 0 (0x0).
The thread 0x4f50 has exited with code 0 (0x0).
The program '[17512] Drink.exe' has exited with code 0 (0x0).
Error List Output
Ready
Ln 77 Col 18 Ch 9 INS
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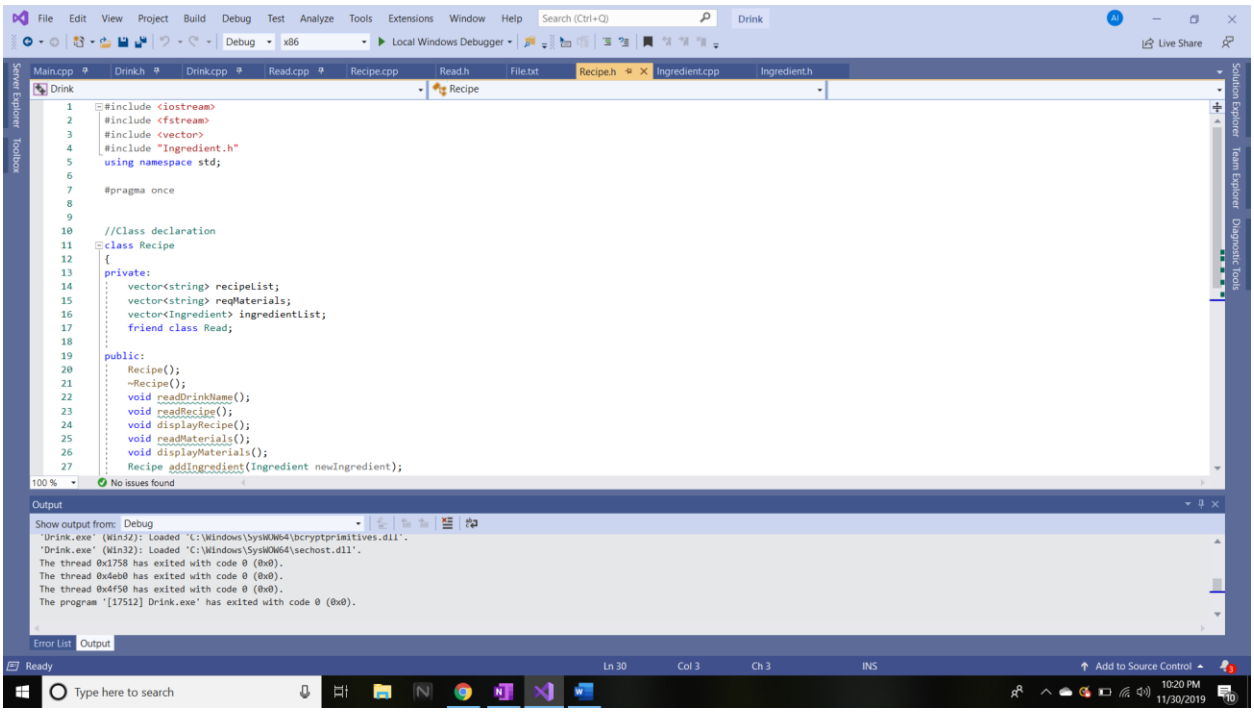
File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
Drink
Debug x86 Local Windows Debugger
Live Share
Main.cpp Drink.h Drink.cpp Read.cpp Recipe.cpp Read.h File.txt Recipe.h Ingredient.cpp Ingredient.h
Drink Recipe
#include <iostream>
#include <fstream>
#include <vector>
#include "Ingredient.h"
using namespace std;
#pragma once
//Class declaration
class Recipe
{
private:
vector<string> recipeList;
vector<string> reqMaterials;
vector<Ingredient> ingredientList;
friend class Read;
public:
Recipe();
~Recipe();
void readDrinkName();
void readRecipe();
void displayRecipe();
void readMaterials();
void displayMaterials();
Recipe addIngredient(Ingredient newIngredient);
100 %
No issues found
Output
Show output from: Debug
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'.
'Drink.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'.
The thread 0x1758 has exited with code 0 (0x0).
The thread 0x4eb0 has exited with code 0 (0x0).
The thread 0x4f50 has exited with code 0 (0x0).
The program '[17512] Drink.exe' has exited with code 0 (0x0).
Error List Output
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Ln 30 Col 3 Ch 3 INS
Add to Source Control
Type here to search
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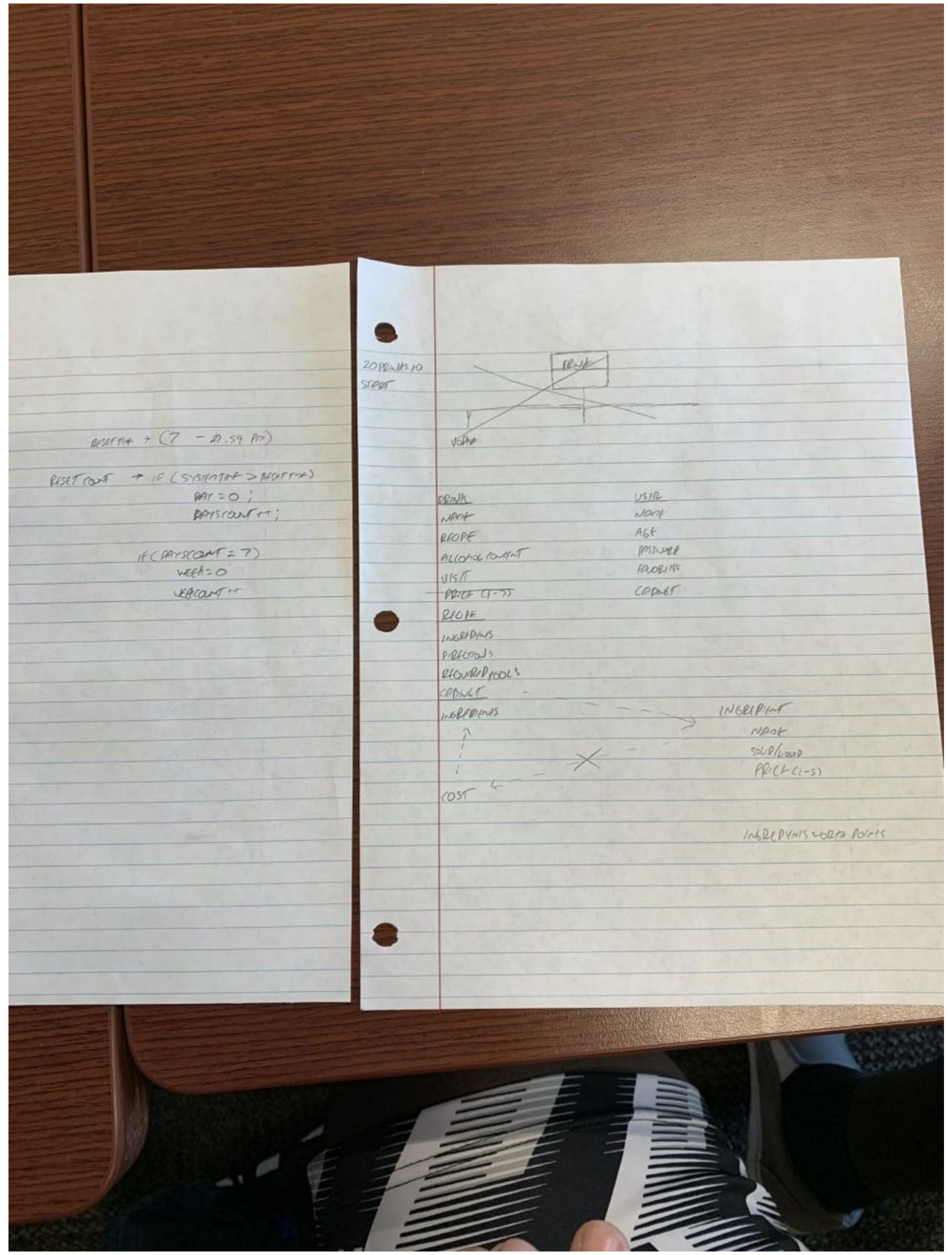
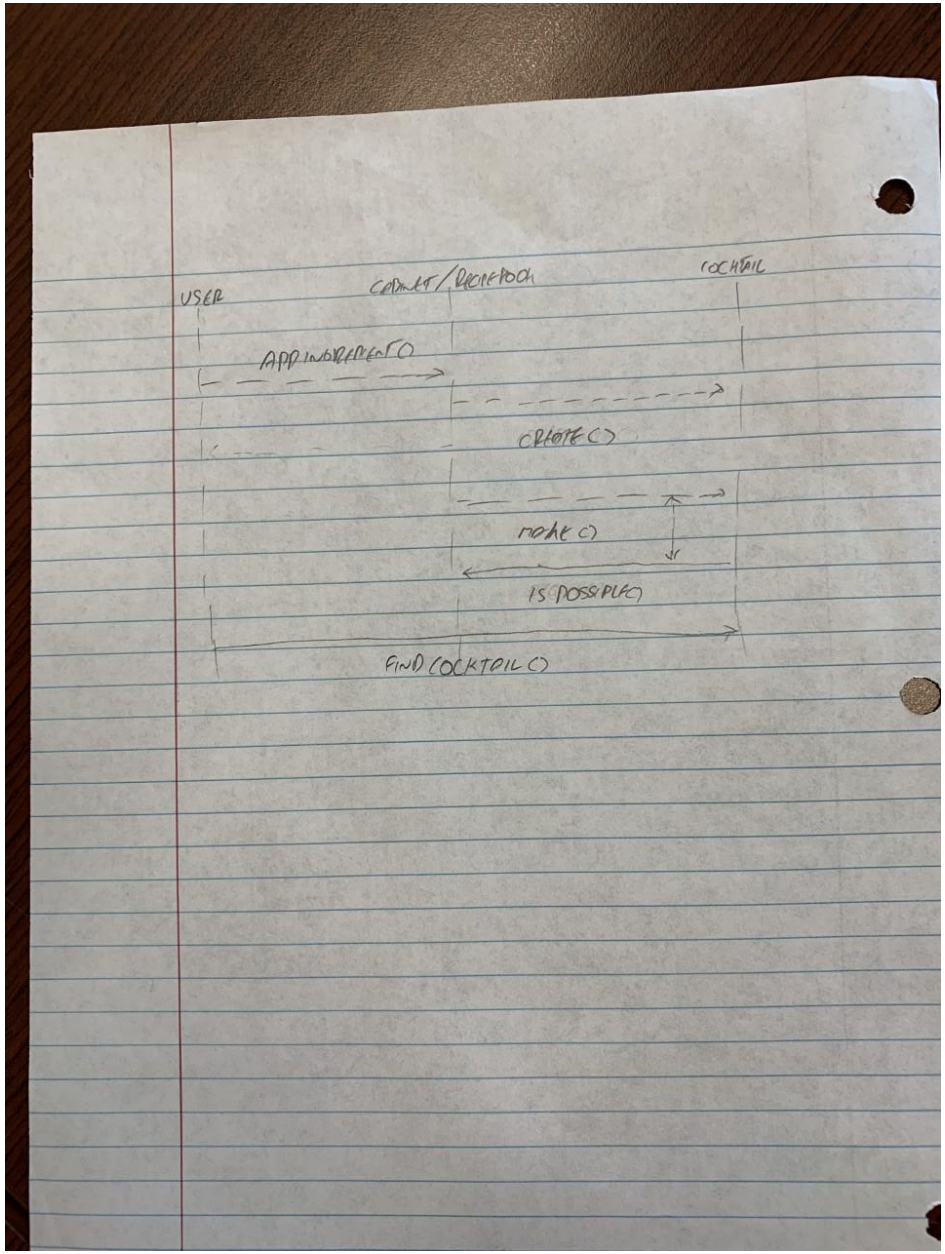

RESETTIME → (7 - 11.59 PM)
RESET COUNT → IF (SYSTEMTIME > RESETTIME)
DAY = 0 ;
DAYSCOUNT++;
IF (DAYSCOUNT = 7)
WEEK = 0
WEEKCOUNT++
20 DRINKS 10
START
DRINK
VODKA
DRINK
NAME
RECIPE
ALCOHOL CONTENT
VISIT
PRICE (1-5)
RECIPE
INGREDIENTS
DIRECTIONS
REQUIRED TOOLS
CABINET
INGREDIENTS
COST
USER
NAME
AGE
PASSWORD
FAVORITES
CABINET
INGREDIENT
NAME
SOLID/LIQUID
PRICE (1-5)
INGREDIENTS WORTH POINTS


USER
COCKTAIL / RECIPEBOOK
COCKTAIL
APP.INSTANCE()
CREATE()
make()
IS POSSIBLE()
FIND COCKTAIL()