CIS 17B Individual Project Write-Up

CIS 17B-48004
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Introduction

This write-up covers both individual projects I worked on. I chose the Storefront and the Time Tracker projects. My strategy was to develop the fundamentals for a User and an Admin in my Mancala group project then transfer over the classes to these individual projects. The layout is similar between the two individual projects with the Storefront having a little more functions that Admins could perform.

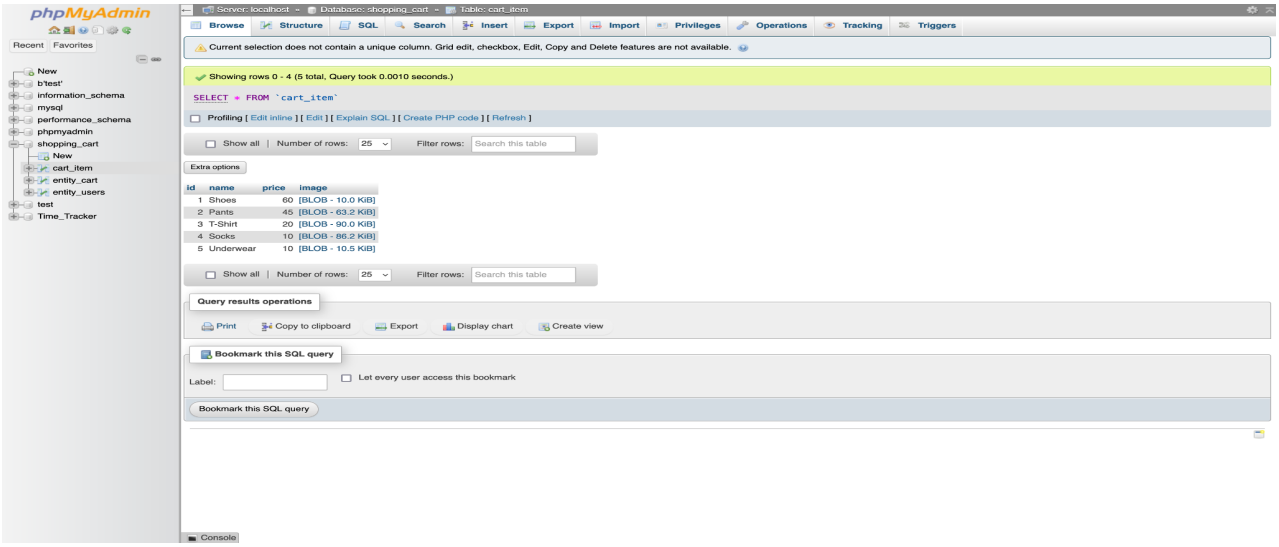
I was unable to begin working on the GUI part of the Time Tracker because I was too busy developing the Storefront and the group project. However, the group project has implemented all components that were required. The C++ Time Tracker will still be included in the file submission along with the rest of the C++ projects.

Instructions

1. Download project folder
2. Import database dump files in MySQL Workbench
3. Place folder in XAMPP/htdocs folder
4. Run MySQL database and Apache web server
5. Open project in Netbeans
6. Run index.php file

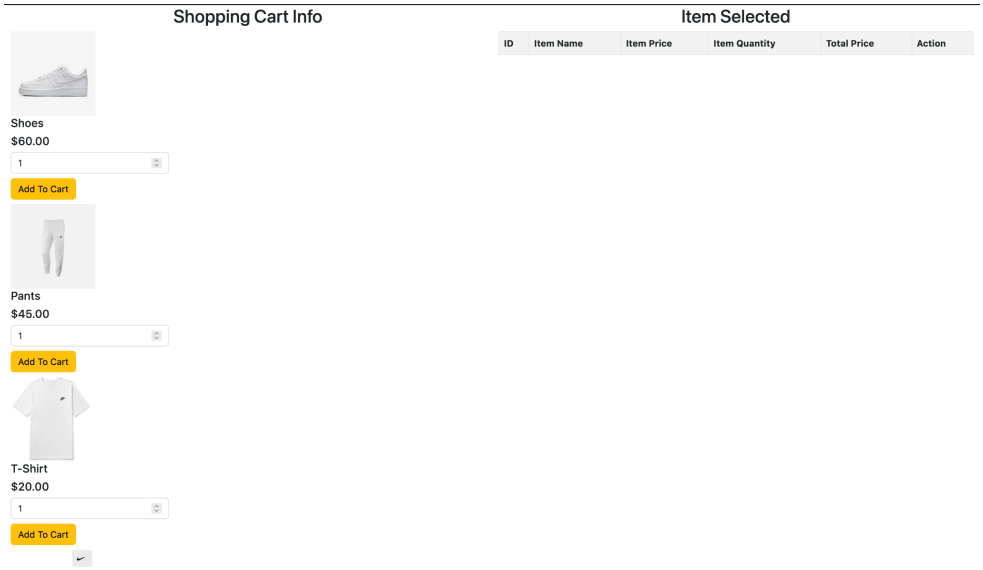
Components Covered in Storefront

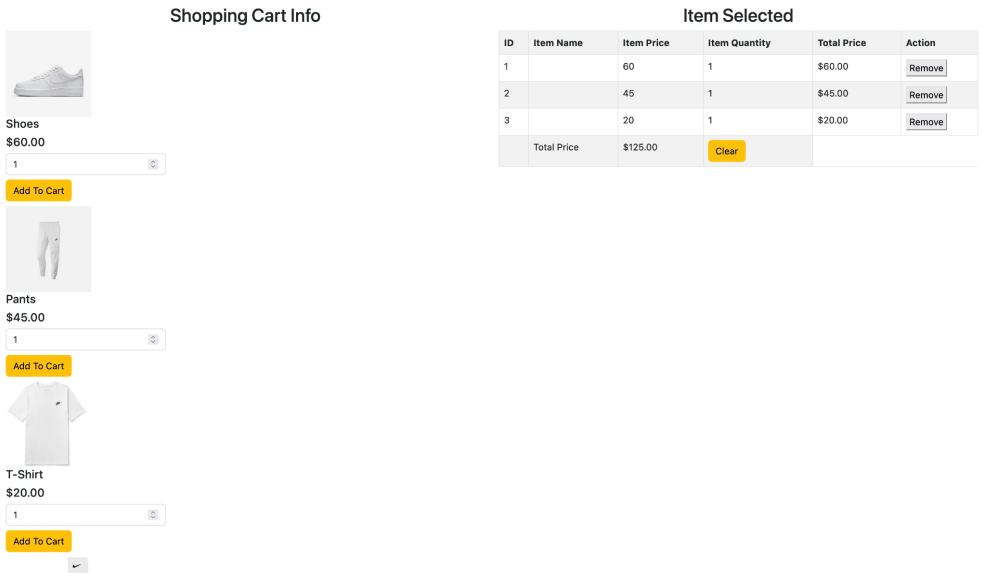
1. Objects - Javascript/PHP - Serialization
    a. $_SESSION in PHP is an object
2. SQL Item Database



3. Form Validation for login page
4. Cookies - Sessions - Securing Pages
    a. The cart remembers it’s last saved state and recovers itself when you run the program

Screenshots





Time Spent

Week 1: I have spent around two and a half hours creating a StoreFront class and a User class for the Storefront option of this project. I only spent about one day coding this since most of the week was spent building the group project.

Week 2: I didn't necessarily code anything in the individual projects this week. However, I did create a basic sign in mechanism in the Mancala group project that I will transfer over to the individual project in the coming week. This took around three and a half hours to implement.

Week 3: For the final week around 5 hours were spent putting on the finishing touches to the storefront and making the time tracker.

Final: For the final GUI part of the project I spent about a week creating the Storefront.

How Time Spent

Week 1: I was able to code around 170 lines. I made a class for the store and for the user. The store contains a map which maps a string describing a category's name to a vector of strings which contain items belonging to that category. So far the user is able

to view the store and add items to a cart. They have the choice to view their cart, view other categories, or quit the program. The program is able to loop until the user quits.

Week 2: The sign in system I made for the group project took around 300 lines of code with a User and AdminUser class. Each class reads from files to determine if the person signing in is an admin or a user. If the person is an admin, an admin class is created and they are prompted with an admin menu displaying options to mutate the user file.

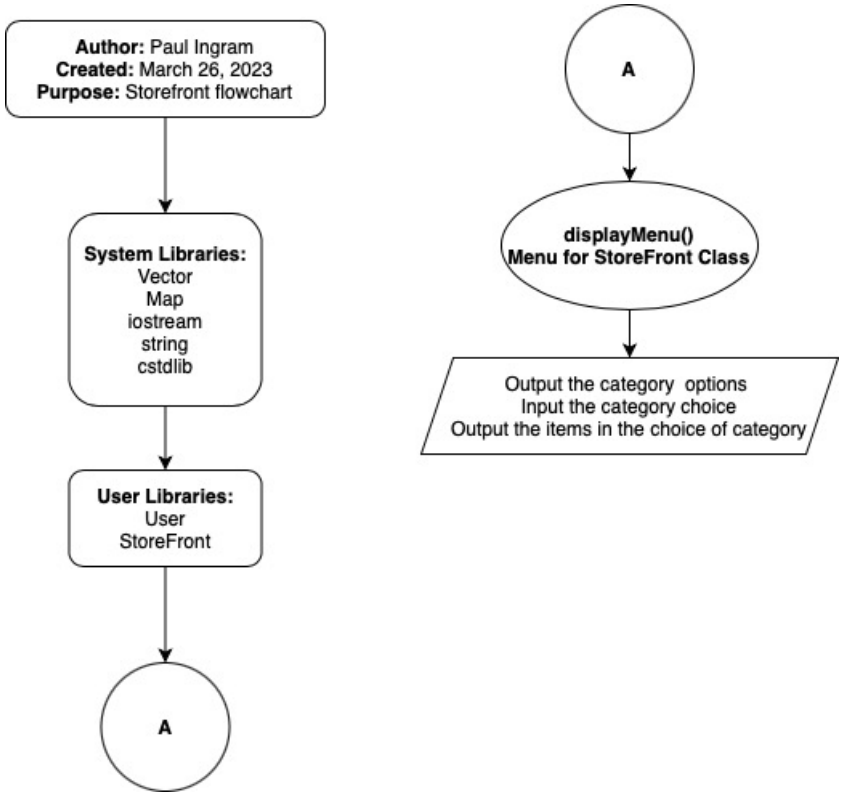
Week 3: For the final week I put all the finishing touches on the Store Front project. I added prices to the items and the ability to modify the items and change the prices. Furthermore, I developed a way to save each user's cart by creating their own binary file in the project with their username. For the time tracker everything was basically copy and paste since all you need to do is sign in and the program will begin tracking time.

Final: For the final development stage of the project I was focused on mostly learning how to create the SQL database in MyAdmin. I also had to learn how to use PHP to access the database and use SESSIONS to remember the cart. Very little of process was actually coding, instead it was spent mostly learning new languages and how to make them all work with each other.

Flowchart and UML

Week 1: There is not much to document in terms of flowcharting so I have made just a simple flowchart of a function that belongs to the storefront class. Most of this program so far only involves outputting data structures belonging to the classes.

Week 2: No flow charts were created this week.

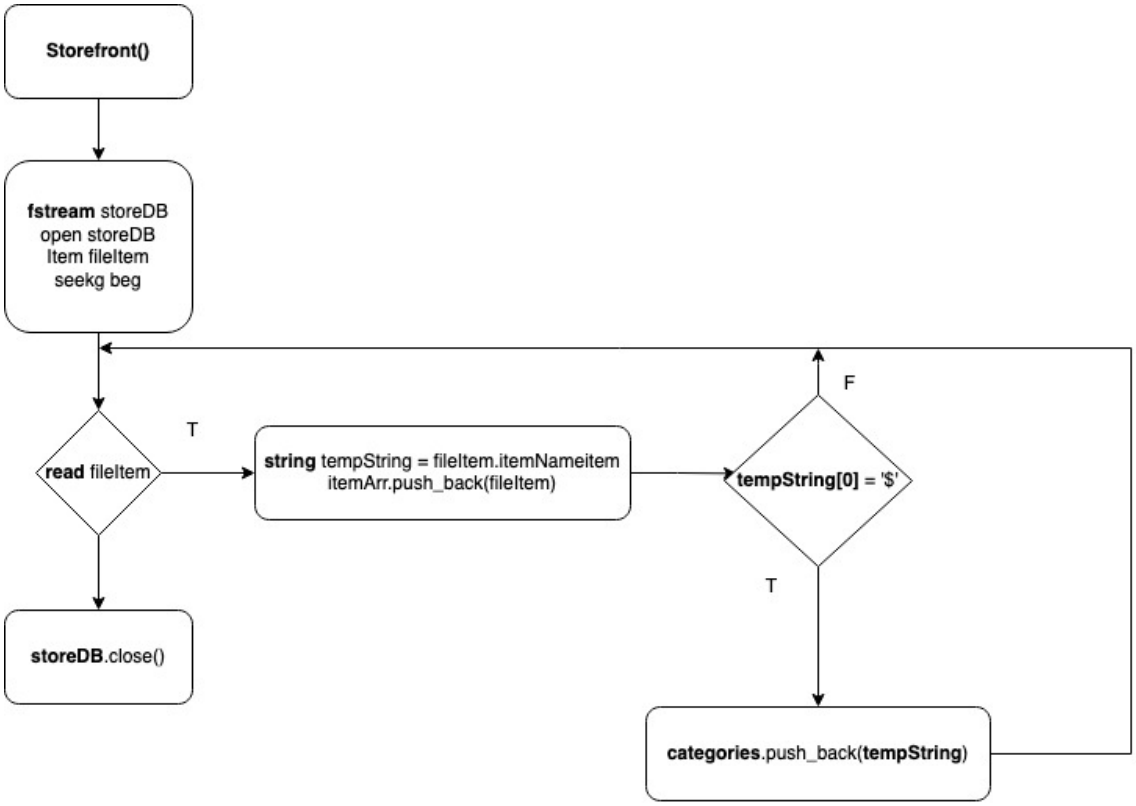


Week 3: Here are the remaining flowcharts and UML diagrams.

AdminUser
+ field: vector<UserInfo> users
+ method(Constructor): AdminUser + method(void): PrintUsers + method(void): PrintAdmins +method(void): ReadUsers +method(void): changeUserStatus +method(void): changeUserPassword +method(void): writeUsers +method(void): addAdmin

User
+ field: UserInfo info
+ method(Constructor): User + method(void): writeUserTime + method(void): setUser +method(void): validateUser

StoreFront
+ field: vector<string> categories + field: vector<Item> itemArr
+ method(Constructor): StoreFront + method(void): populateStore + method(Item): getItem +method(void): displayCategories +method(vector<Item>): displayMenu



Gantt Chart Discussion

Week 1: My plan is to continue developing the StoreFront class and also create an Admin class. The admin should be able to view all of the users registered in the storefront and the data associated with each user. I plan on accomplishing this by writing each user class to a file then having the admin interface read the file and output the results.

For the next project I plan on creating the lab tracker. I haven't thought much about the exact design but I have labeled some basic classes I think I will need in the Gantt chart. I have labeled the things I have not started on as "Low Risk" since there is still more time to implement these classes. However, once I have started working on them and made the progress I want I will label them to "On Track."

Week 2: No further progress to input into Gantt Chart. Mancala should be finished up this week so I can begin focusing on the individual projects. I plan to use most ideas I implemented in the group project for these individual projects.