Project #4: Warehouse Management System

Team: Can You C My Screen?

CSCI 1110-01: Intro to C Programming

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Outline

Team Description.. 3

System Description.. 5

Functions Description.. 7

Variable Descriptions.. 14

Figures of Program Menus & Tables................................ 24

References.. 28

Thank You.. 29

Team Description

Arely J. Parra López - Allowing the user to view, request, and save items from the Warehouse Management System as well as providing the admin and guest user an exit function.

Alexander Vita - Adding, deleting, and editing items with varied details (i.e., Type, Stored Time, ID, etc) from Warehouse Management System.

Kamryn Hammond - Creating login page for admin and guest users to enter username & password for Warehouse Management System.

Team Description (cont.)

Jarred Crystal - Generating user-friendly software that provides a welcome page, a menu of all functions that users have access to, and tabular format of all requested information from the Warehouse Management System.

Sophie Ross - Allowing admin to view the list of borrowing requests as well as accept/reject borrowing requests made by guest users in the Warehouse Management System.

System Description

- **Greeted by a WMS Welcome Page with registration or login.**
- **If logging in as an Admin, individual is able to:**
  - View a list of usernames & passwords
  - Search for usernames & passwords in the system
  - Change usernames/passwords for admin & guest
  - Add/Remove admin & guest
  - Add/Remove/Edit items from the WMS
  - View/Search for items from the WMS
  - View list of borrowing requests from guest users
  - Accept/Deny borrowing requests from guest users

System Description (cont.)

- **If logging in as Guest User, individual is able to:**
  - Search for items in the WMS
  - Make a list of favorite items from the WMS
  - Request items to borrow/buy
  - View item’s borrowing history
- **All users can exit from the WMS when in the Login Menu, Admin Menu, or the Guest Menu.**

Functions Description

Crystal:

- **int loginMenu(void)**
  - Allows for new registration of users and the selection of either the admin or guest login prompt
- **void main(void)**
  - Provides the main interface to the login menu dictating which function will be executed following user input
- **int adminMenu(void)**
  - Provides the menu options within the admin menu
- **void admin(void)**
  - Provides the main interface to the admin menu dictating which function will be executed following user input

Functions Description (cont.)

Crystal:

- **int guestMenu(void)**
  - Provides the menu options within the guest menu
- **void guestMain(void)**
  - Provides the main interface to the guest menu dictating which function will be executed following user input

Functions Description (cont.)

Hammond:

- **int* adminLogin(void)**
  - Allows admin to search for their login from the WMS inventory.
- **int* guestLogin(void)**
  - Allows guest users to search for their login from the WMS inventory using their private encryption key.
- **void view(void)**
  - Provides an organized view of all the Admin & Guest User’s encryption keys, usernames, and passwords.
- **int* search(void)**
  - Allows the Admin to search the WMS LogIn.txt file for a specific encryption key, username, and password.

Functions Description (cont.)

Hammond:

- **void edit(void)**
  - Allows the Admin to select a specific user from the WMS and edit their login information.
- **void add(void)**
  - Allows the Admin to add a new user to the WMS with an encryption key, username, and password.
- **void delete(void)**
  - Allows the Admin to select and delete a user from the WMS.

Functions Description (cont.)

Vita:

- **void addItems (void)**
  - Admin can add an item to the inventory
- **int* searchItems(void)**
  - Admin can search for an item within the inventory
- **void editItems (void)**
  - Admin can edit an items characteristics
- **void deleteItems(void)**
  - Admin can delete an item from the inventory
- **void viewItems(void)**
  - Admin can view all items within the inventory

Functions Description (cont.)

Ross:

- **Void acceptDeny(void)**
  - Allows Admin to accept or deny borrowing request list from guest users.
- **Void viewBorrowing(void)**
  - Allows Admin to view all borrowing requests from guest users.

Functions Description (cont.)

Parra López:

- **void registration(void)**
  - New individuals can create a new accounts within the WMS.
- **int* searchWMS(void)**
  - Guest can search for an item from the WMS inventory.
- **void makeList(void)**
  - Guest can make a list of favorite items from the WMS inventory.
- **void viewList(void)**
  - Guest can view their list of favorite items.
- **void requestItems(void)**
  - Guest can request to borrow/buy an item.
- **void viewHistory(void)**
  - Guest can view the borrowing/purchase history of items.

Variables Description

Crystal:

- **int adminMenu(void)**
  - int input;
- **void admin(void)**
  - int option;
  - char quit;
- **int loginMenu(void)**
  - int input;
- **int guestMenu(void)**
  - int input;
- **void guestMain(void)**
  - int task;
  - char quit;
- **void main(void)**
  - int choice
  - char quit;

Variables Description (cont.)

Hammond:

- **int* adminLogin(void)**
- **int* guestLogin(void)**
- **int* search(void)**
  - static int output[2]
  - char key[100]
  - char input[100]
  - FILE *myfile
  - char myString[100]
  - int line=0
  - int find=0
  - int fieldNumber=0
  - char quit

- **void view(void)**
  - struct entity
  - char encrypt[20]
  - char username[20]
  - char password[20]
  - struct entity new
  - char myString[100]
  - int pline=0

Variables Description (cont.)

Hammond:

- **void edit(void)**
  - int* place=search()
  - int line=place[1]
  - int find=place[0]
  - char username[20], password[20]
  - FILE *invfile
  - FILE *temp
  - char myString[100]
  - int pline=0
  - char quit

- **void add(void)**
  - struct entity
  - char encrypt[20]
  - char username[20]
  - char password[20]
  - struct entity new
  - FILE *myfile
  - char quit

Variables Description (cont.)

Hammond:

- **void delete(void)**
  - int* place=search()
  - int line=place[0]
  - int find=place[0]
  - FILE *originalfile
  - FILE *tempfile
  - char myString[100]
  - int pline=0
  - char quit

Variables Description (cont.)

Vita:

- **void addItems (void)**
  - struct entity
  - char Type...[100]
  - struct entity new
  - FILE *invfile
  - char quit

- **int* searchItems(void)**
  - static int output[2]
  - char key[100]
  - char input[100]
  - FILE *invfile
  - char myString[100]
  - int line=0
  - int find=0
  - int fieldNumber=0
  - int pline=0

Variables Description (cont.)

<u>Vita:</u>

- **void editItems (void)**
  - int* place=searchItems()
  - int find = 0
  - int line = 0
  - char Type….[100]
  - FILE *invfile
  - FILE *tempfile
  - char myString[100]
  - int pline=0
  - char quit

- **void deleteItems(void)**
  - int* place=searchItems()
  - int find=place[0]
  - int line=place[1]
  - FILE *invfile
  - FILE *tempfile
  - char myString[100]
  - int pline=0
  - char quit

Variables Description (cont.)

Vita:

- **viewItems(void)**
  - FILE *invfile
  - struct entity
  - char Type….[100;
  - struct entity new
  - char Type….[100];
  - char myString[100000]
  - int pline=0

Variables Description (cont.)

Ross

- **void viewBorrowing(void)**
  - FILE myfile*
  - struct entity
  - char Type...[100]
  - struct entity new
  - char myString[10000]
  - int pline = 0

- **void acceptDeny(void)**
  - struct entity
  - char ID[20]
  - char accept[20]
  - char deny[20]
  - FILE myfile*
  - char quit

Variables Description (cont.)

Parra López:

- **void registration(void)**
  - struct entity
  - char encrypt[20]
  - char username[20]
  - char password[20]
  - struct entity new
  - FILE *myfile
  - char quit

- **int* searchWMS(void)**
  - static int output[2]
  - char ID[100]
  - char input[100]
  - FILE *myfile
  - char myString[100]
  - int line=0
  - int find=0
  - int fieldNumber=0
  - char quit

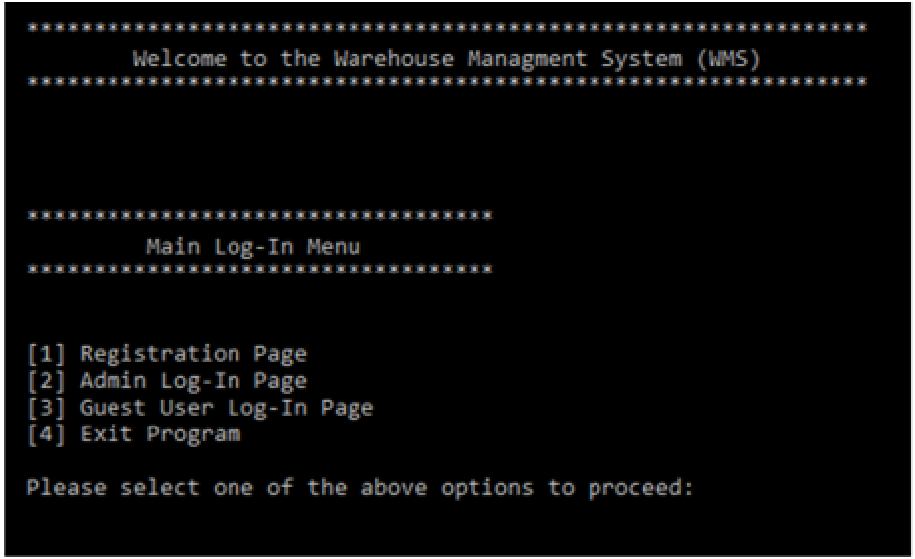
Variables Description (cont.)

Parra López:

- **void viewList(void)**
- **void viewHistory(void)**
  - FILE *myfile
  - struct entity
  - char Type...[100]
  - struct entity new
  - char myString[10000]
  - int pline=0

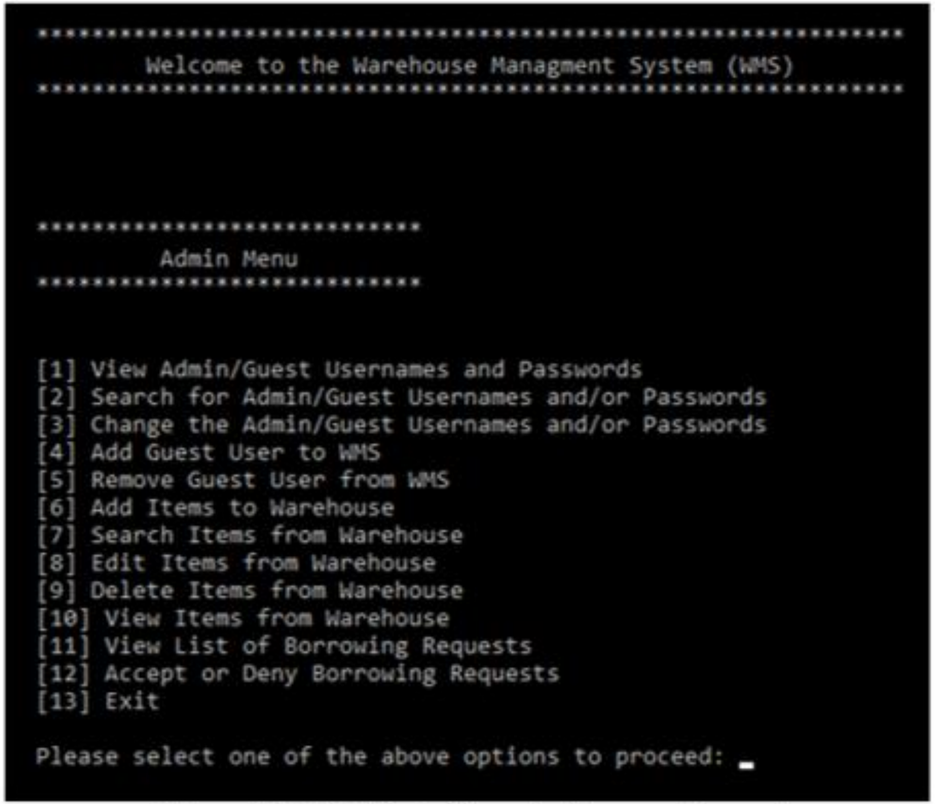
- **void makeList(void)**
- **void requestList(void)**
  - struct entity
  - char Type...[100]
  - char Length[100]
  - struct entity new
  - FILE *myfile
  - char quit

Figures of Program Menus & Tables



```
***************************************************************
        Welcome to the Warehouse Managment System (WMS)
***************************************************************



***********************************
         Main Log-In Menu
***********************************


[1] Registration Page
[2] Admin Log-In Page
[3] Guest User Log-In Page
[4] Exit Program

Please select one of the above options to proceed:
```

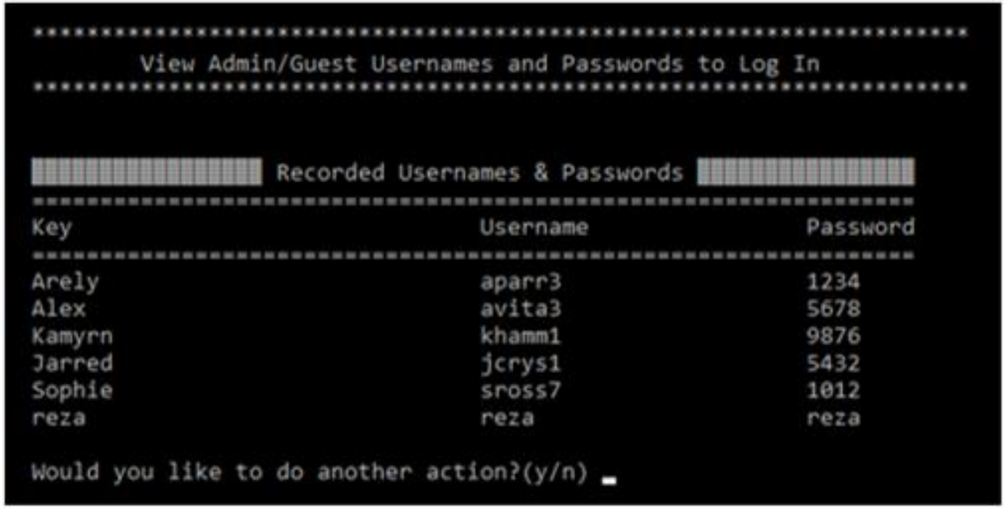
Figure 7: WMS Main Log-in Menu in Command Prompt



```
***************************************************************
        Welcome to the Warehouse Managment System (WMS)
***************************************************************



****************************
         Admin Menu
****************************


[1] View Admin/Guest Usernames and Passwords
[2] Search for Admin/Guest Usernames and/or Passwords
[3] Change the Admin/Guest Usernames and/or Passwords
[4] Add Guest User to WMS
[5] Remove Guest User from WMS
[6] Add Items to Warehouse
[7] Search Items from Warehouse
[8] Edit Items from Warehouse
[9] Delete Items from Warehouse
[10] View Items from Warehouse
[11] View List of Borrowing Requests
[12] Accept or Deny Borrowing Requests
[13] Exit

Please select one of the above options to proceed: _
```

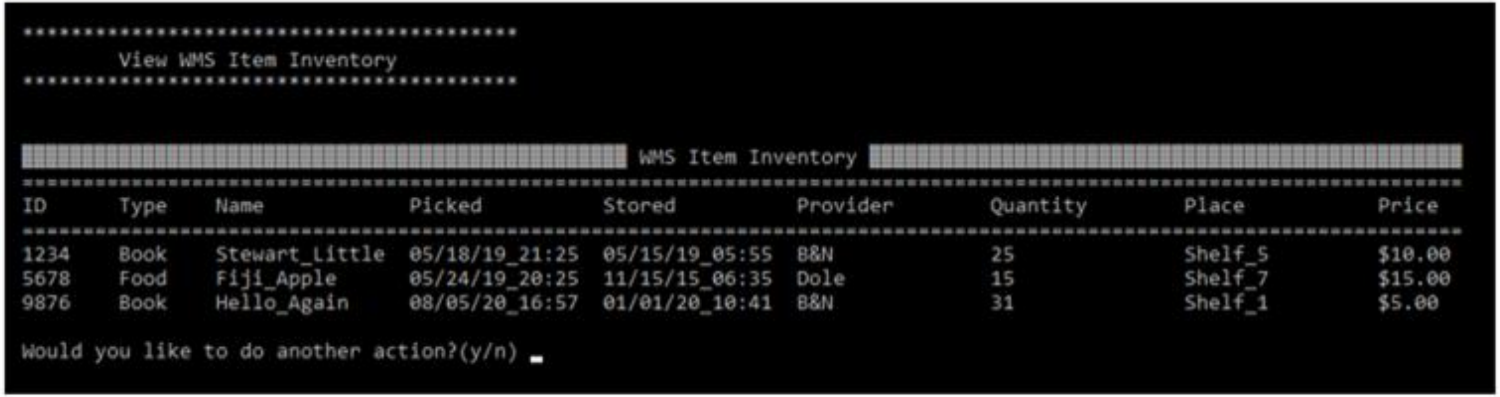
Figure 8: WMS Admin Menu in Command Prompt

Figures of Program Menus & Tables (cont.)



```
*********************************************************************
        View Admin/Guest Usernames and Passwords to Log In
*********************************************************************


▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒ Recorded Usernames & Passwords ▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒
=================================================================
Key                                 Username                Password
=================================================================
Arely                               aparr3                  1234
Alex                                avita3                  5678
Kamyrn                              khamm1                  9876
Jarred                              jcrys1                  5432
Sophie                              sross7                  1012
reza                                reza                    reza

Would you like to do another action?(y/n) _
```

Figure 9: WMS Admin/Guest User Encryption Key, Username, & Password Table in Command Prompt



```
*****************************************
        View WMS Item Inventory
*****************************************


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========================================================================================================================
ID      Type    Name            Picked          Stored          Provider        Quantity        Place           Price
========================================================================================================================
1234    Book    Stewart_Little  05/18/19_21:25  05/15/19_05:55  B&N             25              Shelf_5         $10.00
5678    Food    Fiji_Apple      05/24/19_20:25  11/15/15_06:35  Dole            15              Shelf_7         $15.00
9876    Book    Hello_Again     08/05/20_16:57  01/01/20_10:41  B&N             31              Shelf_1         $5.00

Would you like to do another action?(y/n) _
```
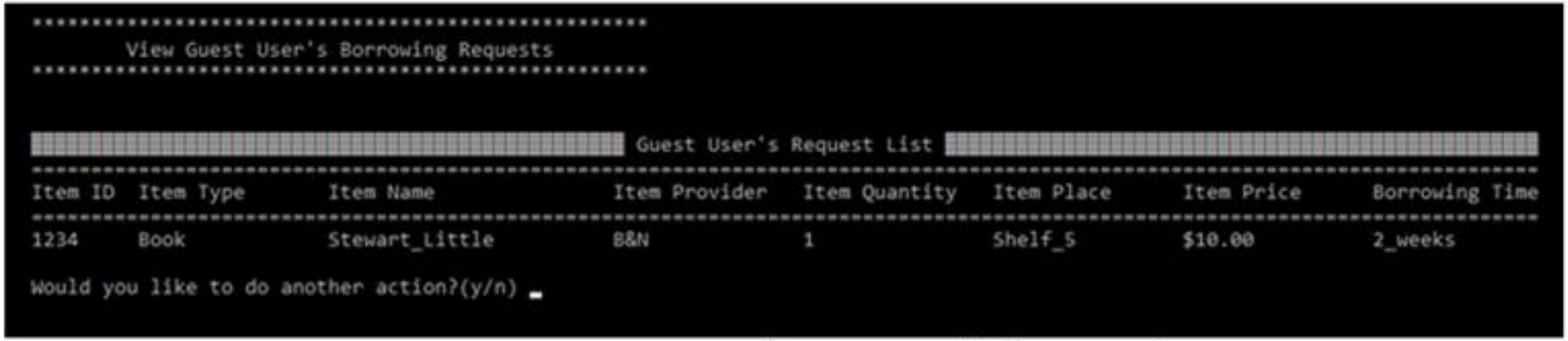
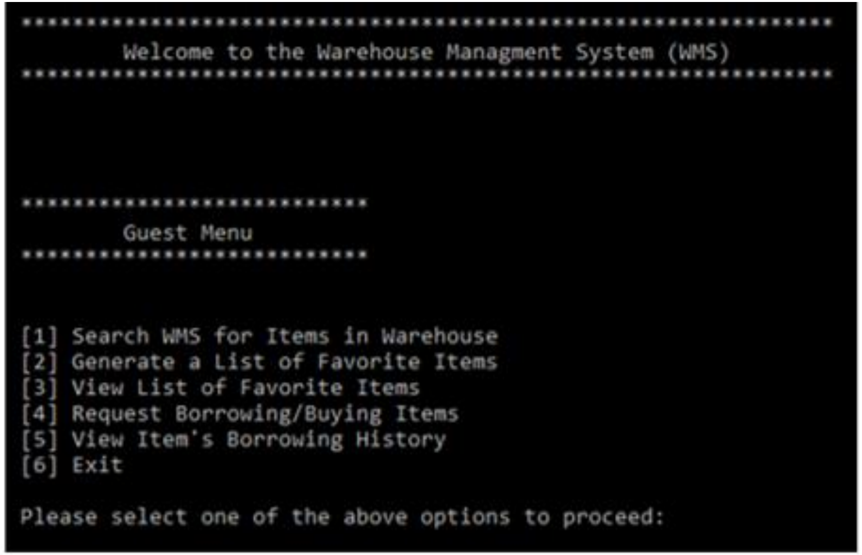

Figure 10: WMS Inventory Table in Command Prompt



```
****************************************************
        View Guest User's Borrowing Requests
****************************************************


▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒ Guest User's Request List ▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒
--------------------------------------------------------------------------------------------------------------------------------
Item ID  Item Type       Item Name               Item Provider   Item Quantity    Item Place      Item Price      Borrowing Time
--------------------------------------------------------------------------------------------------------------------------------
1234     Book            Stewart_Little          B&N             1                Shelf_5         $10.00          2_weeks

Would you like to do another action?(y/n)
```

Figure 11: WMS Guest User's Borrowing Requests Table in Command Prompt

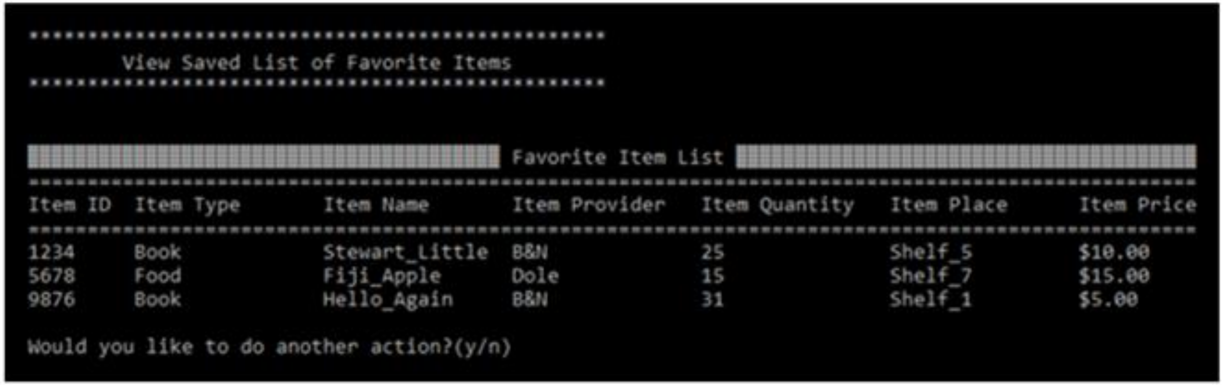
Figures of Program Menus & Tables (cont.)



```
***************************************************************
        Welcome to the Warehouse Managment System (WMS)
***************************************************************




***************************
        Guest Menu
***************************


[1] Search WMS for Items in Warehouse
[2] Generate a List of Favorite Items
[3] View List of Favorite Items
[4] Request Borrowing/Buying Items
[5] View Item's Borrowing History
[6] Exit

Please select one of the above options to proceed:
```

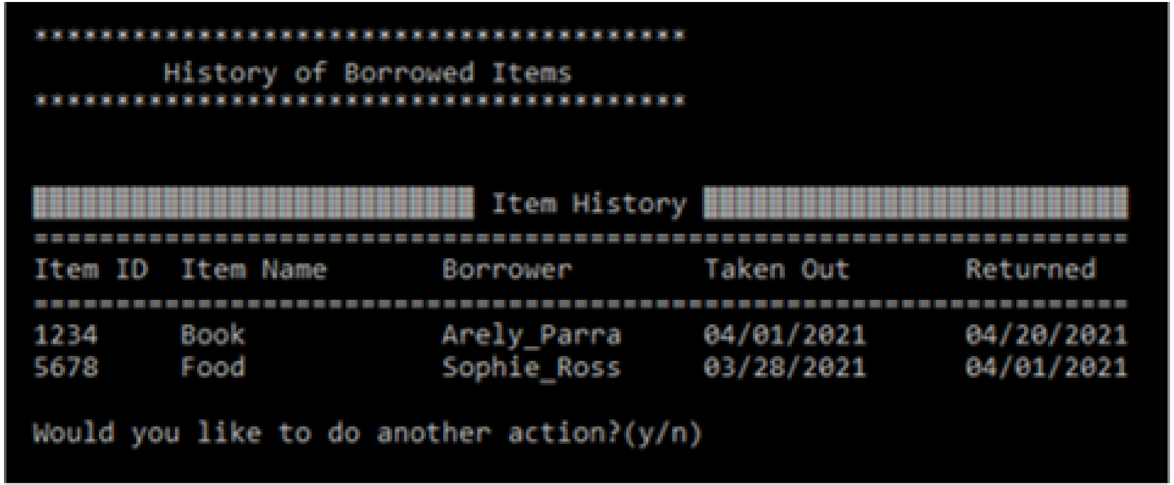
Figure 12: WMS Guest User Menu in Command Prompt

Figures of Program Menus & Tables (cont.)



```
*************************************************
       View Saved List of Favorite Items
*************************************************


▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒ Favorite Item List ▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒
----------------------------------------------------------------------------------------------------
Item ID  Item Type       Item Name       Item Provider   Item Quantity   Item Place      Item Price
----------------------------------------------------------------------------------------------------
1234     Book            Stewart_Little  B&N             25              Shelf_5         $10.00
5678     Food            Fiji_Apple      Dole            15              Shelf_7         $15.00
9876     Book            Hello_Again     B&N             31              Shelf_1         $5.00

Would you like to do another action?(y/n)
```

Figure 13: WMS Guest User's Favorite Items List Table in Command Prompt



```
*****************************************
       History of Borrowed Items
*****************************************


▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒ Item History ▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒
--------------------------------------------------------------------
Item ID  Item Name       Borrower        Taken Out       Returned
--------------------------------------------------------------------
1234     Book            Arely_Parra     04/01/2021      04/20/2021
5678     Food            Sophie_Ross     03/28/2021      04/01/2021

Would you like to do another action?(y/n)
```

Figure 14: WMS Guest User's View of Item History Table in Command Prompt

References

1. Fischer, A. E., Fischer, M. J., & Eggert, D. W. (2016, August 30). *Applied Introductory C Programming - University of New Haven*. Chapters from 2nd edition. http://eliza.newhaven.edu/apc/.
2. Sadeghi, R. (2020, December 14). *RezaSadeghiWSU/LMS*. GitHub. https://github.com/RezaSadeghiWSU/LMS.
3. Sadeghi, R. (2020, December 15). *RezaSadeghiWSU/Calendar-Management-System*. GitHub. https://github.com/RezaSadeghiWSU/Calendar-Management-System.
4. Sadeghi, R. (2021). passwordSystem.c. West Haven; Reza Sadeghi.

Thank You