

## **LoggerProject Intro**

The logger project is used to allow someone to log hours in and out for whatever lab is available. For example if some is taking Art then they would select that lab and then log their start time in and once they are done they are to log their end time.

## **LoggerProject Description/Rules**

The logger project works by doing the following

- Login in using an admin account
- Create lab section for users to log hours in and out for

Once the labs have been created then you can log in as a user and start logging in hours for whatever labs have been created

- Some things to be aware of when using the logger project is that there is no validation check so if you put values that don't make sense or skip input when asked then the program may not work as intended, the same applies when using the admin menu and creating labs. When creating labs make sure there is no whitespace else the program will crash

The program starts by prompting the user to sign in, depending on whether the one signing in is an admin or a user, they will be redirected to their respective menus within the program.

There are two menus one is the user menu and the admin menu. The admin menu is only available to a logger admin and you are able to view the current users, view user hours, create lab sections, and sign out. The first 3 options have other options inside of them so when selecting option one you are given the choices to delete users, edit user information and return back to the main menu. For option 2 you are given the option to delete a user's hours, add onto a user's hours and return. Finally for option 3 you are able to Delete lab sections, add lab sections, and return back to the main menu.

In the user menu you are given 3 options, Choose a lab section and log hours in or out for that lab section, Sign out and exit the program, and lastly view hours logged for a lab section. The first option prompts the user to enter a lab section from the lab sections listed and select whether they are logging hours in or out for that lab. The second option simply breaks out of the do while loop and returns the sign in menu to allow the user to exit the program. Finally the third option allows a user to view the hours they have logged in for a lab.

## Pseudo Code

### Main

```
//creating program
//creating users
//creating admin
//storing user and admin info
//launching
```

### loggerAdmin

```
//Initialize logger admin object
//set admin name function
//set admin password function
//set vector of user information function
// pass vector of user information function
//pass string vector of lab sections
//return admin name
//return admin password
//View users by going through a for loop of current users in the program
and Displays the user's name and password
//Deletes users by getting the user's name through admin input and
searches through the vector list of current users and then deletes the
user whose name matches the given input
//Edits user by getting the user's name through admin input and searches
through the vector list of the current users and then prompts the admin
for a new username, password, and student ID Once done the users
information is replaced with the new information provided by the admin
//displays user hours by getting the user's name through admin input and
searches through the vector list of the current users and then getting the
users hours logged in and out for all labs
//adds user hours by getting the user's name through admin input and
searches through the vector list of the current users and then prompts the
admin to enter information for time logged in and out
///Edits user by getting the user's name through admin input and searches
through the vector list of the current users and then
//Function that creates a lab by getting admin input and pushing that lab
into the vector of lab sections
//Deletes lab by getting the lab name through admin input and then goes
through the list of current labs
```

```
//and then deletes the lab and hours logged in and out for that lab
//Edits lab by getting admin input of what lab to edit and then changes
the lab name to the new lab lab and changes the lab name for hours logged
in and out
```

## loggerClass

```
//Default constructor for loggerClass
//Function that allows a user to create a new account by prompting them
for a user name, password, and student ID and then storing that
information into a vector that holds user information
//function that checks if the user is in the system by going through a
vector that holds user information and if the username and password that
was given matches any user in the vector then return true
//function that checks if the admin is in the system by going through a
vector that holds admin information and if the admin name and password
that was given matches any user in the vector then return true
//Function that finds the user that matches the given username and
password and returns the user found in vector which holds all the users
information such as hours logged in and out
//Function that finds the admin that matches the given username and
password and returns the admin found in vector
//Function that displays the admin menu which contains options specific to
admins
//Regular menu that users have access to which allows a user to log hours
in and out as well as view those hours
//function that stores user information
//function that stores admin information
//function that sets user information
//function that sets lab sections
//function that gets current labs created
//function that passes user information
```

## loggerUser

```
//Iniltizes log user object
//Sets username
//Sets user password
//sets student id
```

```
//Function that lets a user view the hours they have logged in
//Function that lets a user view the hours they have logged out
//Function that stores hours logged in
//Function that stores hours logged out
//Function that sets the vector of hours logged out
//Function that sets the vector of hours logged in
//Function that sets current lab
//Current that lets the user view the current labs
//Function that returns username
//Function that returns user password
//Function that returns student ID
//Function that returns hours logged in
//Function that returns hours logged out
```

## logHoursClass

```
//Initialize logHoursClass object
//return month;
//return day
//return year
//return hour
//return minute
//return whether the time set was amp or pm
//return lab section
//set month
//set day
//set year
//set hour
//set minute
//set whether the time was amp or pm
//set lab section
```