

Heritage High School Point Tracker

FBLA Coding and Programming 22-23

Heritage High School FBLA Chapter

Hamilton Nguyen

How to Download

Requirements

- Windows

Step 1

Access the Google Drive containing all of the files by accessing this

link:<https://drive.google.com/drive/folders/1smd6w1ePSGWmUfs1fkKsM6hLUeUUbEg5?usp=sharing>

Step 2

Click on the three dots right of the “main” file and click Download

Step 3

Once the downloading is complete, on the top right of your screen, click on the three dots, find and click “Downloads” and click open file for your most recent download.

Step 4

Click on the “main” folder and scroll down until you see a file called “main” and double click on it.

Step 5

Your computer will then ask you if you want to extract all of the files in that folder, click Extract All

Step 6

Do what is said on Step 4 for the extracted file.

Step 7

It will then say “Windows protected your PC”, click on More info and then Run anyway. The program should work after you have done this.

Program Purpose and Brief Description:

This program is a point tracker for Heritage High School. At the end of each quarter, the person with the most points in each grade or a randomly chosen winner from each grade gets a prize; they need to have at least one point in the quarter in order to qualify for the prize. The user can get a point by entering their information in either the New Attendees or the Returning Attendees screen, and they also need to pick the event they are attending and the code for that specific event. The user also has access to see events that have already happened, or upcoming events and also the point leaderboard for the quarter. Users also have the ability to see their information and statistics once they log in and can ask questions for the administrator to answer. This program has around 2,800 lines of code, uses appropriate identifiers and uses Excel sheets to store student information.

Programming Language:

This program was coded in Python.

Libraries Used:

Tkinter, openpyxl, smtplib

Applications Used:

PyCharm, CodeHS

Program Description:

New Attendees:

When the program is first run, the screen that pops up is the New Attendees screen in which new users can enter their information and event information to get a point. This screen has the most information to fill out, because they are a new user. The information the user has to fill out are their First and Last Names, their School Email, their Student ID, and their grade as well as the event type and event code, once the user fills in all of the information correctly, the user will be awarded with one point. Error messages are used to guide the user through the process. Once the user has attended

at least one event, then the user can then use the Returning Attendees screen to sign in and get a point.

Old Attendees:

Once the user has attended at least one event, the user can then use this screen to log in and get a point. On this screen, the user can either enter their school email or their student ID in order to log in, and the user still needs to enter the type of event they are attending and the event code in order to receive a point. If a New Attendee somehow ended up on this screen, they wouldn't be able to log in even if the information they are putting in is correct, because they haven't signed up yet.

Events and Leaderboard:

On either the New or Returning Attendees screen, the user should see a button under the Non-Sporting Events that says "Events and Leaderboard". When the user presses this button, it creates a new screen that displays treeviews of all of the past and upcoming events that have happened as well as the point leaderboard for the quarter. After the end of each quarter, the point leaderboard is reset so everyone can start at 0 points.

Help Menu and Q&A:

On either the New or Returning Attendees screen, the user should see a button under the Sporting Events that says "Help Menu and Q&A". When the user presses this button, it creates a new screen that displays guidance that helps the user use the program, as well as the prizes that are available to win. The screen also displays on the right side a list of questions that have been asked by students that have been answered, and on the bottom right of the screen, an entry box telling the user that if they have any questions, to put that question into the entry and submit it for administrators to answer.

View your Information:

Only on the New Attendees screen, there should be a button that says "View your Information" which switches some aspects of the New Attendees screen, but now it has another purpose. On this screen, the user should enter their information and only their information, not event related information. From this, if the user correctly enters their information, a new screen should appear that tells them their account information, the events they visited in the past, and also how they rank in points compared to their peers.

Extra Information:

When you are on either the New or Returning Attendees screen, at the bottom of the submit button should be a button that allows you to switch between these screens, and for the User information and New Attendees screen, there should also be a button on the top middle of the screen that allows you to switch between these screens.

When a user has successfully received a point or has been chosen as a winner, the user is sent an email stating that they received a point, or they have won a prize and should go to the main office to claim their prize.

Admin Functions:

Accessing the Admin Screen:

In order to access the admin screen, the user has to correctly enter the admin credentials for the screen to pop up in the New Attendees screen. The credentials are below.

First Name: admin

Last Name: access

School Email: 0

Student ID: 0192837465

You won't need to worry about the other entries and buttons.

Once you enter all of the information, the admin screen will pop up.

Generate Reports, Pick Winners, Change Quarters

Generating Student Reports:

To generate student reports, the administrator will need to select either the Freshman, Sophomore, Junior, Senior, or All Grades Report and also will need to select the quarter the report is being generated in. Once they do, they will click the "Generate Report" button which will generate the report in the "studentReport.xlsx" Excel file. If the administrator does not select an option or quarter, the program will tell the administrator to fix the problems.

Picking Winners for Prizes:

In order for the administrator to pick a winner for prizes, the administrator first needs to pick the quarter the winner(s) are being picked in, then the administrator can either pick the winner for the most points in their grade or a random winner from each grade. From there, the winners' information will be appended to the "studentsWithPrizes" Excel sheet.

“New Quarter” and “Point Leaderboard Quarter” buttons:

The “New Quarter” button resets all the students points. To make sure that the administrator doesn’t accidentally click this button, there is a screen that pops up that tells the administrator if they really want the process to proceed. This button should only be pressed after the end of every quarter and once all of the reports are generated and winners are chosen.

The “Point Leaderboard Quarter” just changes the quarter that is displayed on the bottom of the point leaderboard. To change the quarter, the administrator must click on the combobox containing all of the available quarters to choose from, then clicking this button which will change the quarter displayed.

Event Options

Upcoming Events:

To append an upcoming event, the administrator must enter the time the event is taking place in MM/DD/YYYY TIME format and also the place the event is taking place at. From then, the administrator will pick the event that is taking place by choosing from the combobox containing all of the available events then clicking the button that says “Confirm Upcoming Event”. All the upcoming events will be displayed for all users to see.

To remove an upcoming event, the administrator must pick the upcoming event to remove by clicking on the combobox displaying all of the upcoming events. From there, the administrator will click the “Remove” button which will remove the upcoming event and append it into the list of past events.

Create an Ongoing Event:

To create an ongoing event, the administrator must select the event that they are trying to run by clicking the combobox containing all of the events that are available to run. Then, the administrator should click the “Generate Event Code” button which will generate a code for the event, which is displayed to the administrator. From then, the administrator should click the “Confirm Event and Code” button which will make the event and code work for the users.

Delete an Ongoing Event:

To delete an ongoing event, the administrator must enter the event number which is accessible by accessing the “eventsAndCodes.xlsx” Excel file. In that file, there should be a number next to all the ongoing events, which the administrator should enter the

number next to the event that they are trying to delete. From there, the admin should click the button that says “Confirm the deletion” which will delete the ongoing event.

How to View the Attendees of an Ongoing Event:

To view the attendees that attended a particular event, the administrator should access the “eventsAndCodes.xlsx” Excel file. From there, there should be a number next to all the ongoing events, and the administrator should enter the number next to the event that they are trying to view the attendees of. After that, the administrator should click the “Confirm” button which will generate an Excel file named “attendees.xlsx” which is also protected by a strong password.

Student Questions

Student Questions:

There will be a section where the administrator can answer student questions. It will show how many questions the administrator has to answer and the question that was asked the earliest. In order to answer this question, the administrator should put their answer to that question in the entry box below that question and click submit to submit their question. If the question is irrelevant or inappropriate, then the administrator can click the delete question button which will delete the question and show the next question to answer.

Remove or Add Point(s) to Students

Adding Points to Students:

To add points to a student, the administrator should enter the student's email address and the points that the administrator wants to add, then click the “Confirm” button. To access this information, the administrator should access the “studentsInfo.xlsx” Excel file.

Delete a Student off of the Database:

To delete a student off of the database, the administrator must enter the correct data of the student that they are trying to delete, if the data is incorrect, the program will tell the administrator and won't do anything until the correct information is entered. The administrator also has access to view the list of removed students, which is stored in the “removedStudents.xlsx” Excel file.

Note

If you want to test out this program, you will need to enter your own email and make up an ID in the heritageEmails.xlsx and heritageIDs.xlsx files in order for the program to sign you up.

Sources

Tkinter Documentation

[Python Tkinter Tutorial - GeeksforGeeks](#)

Pictures

<https://images.app.goo.gl/u89fsCiiHdg55tCB9>

<https://images.app.goo.gl/RRo4P2m3U6XXARbD6>