

Blue Pearl Scanner

[dvhsbluecrew.github.io](https://github.com/dvhsbluecrew)

Documentation

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Introduction

Hello, Blue Pearl Planner!

This guide will demonstrate the various features of the Blue Pearl ticket scanner and the accompanying dashboard.

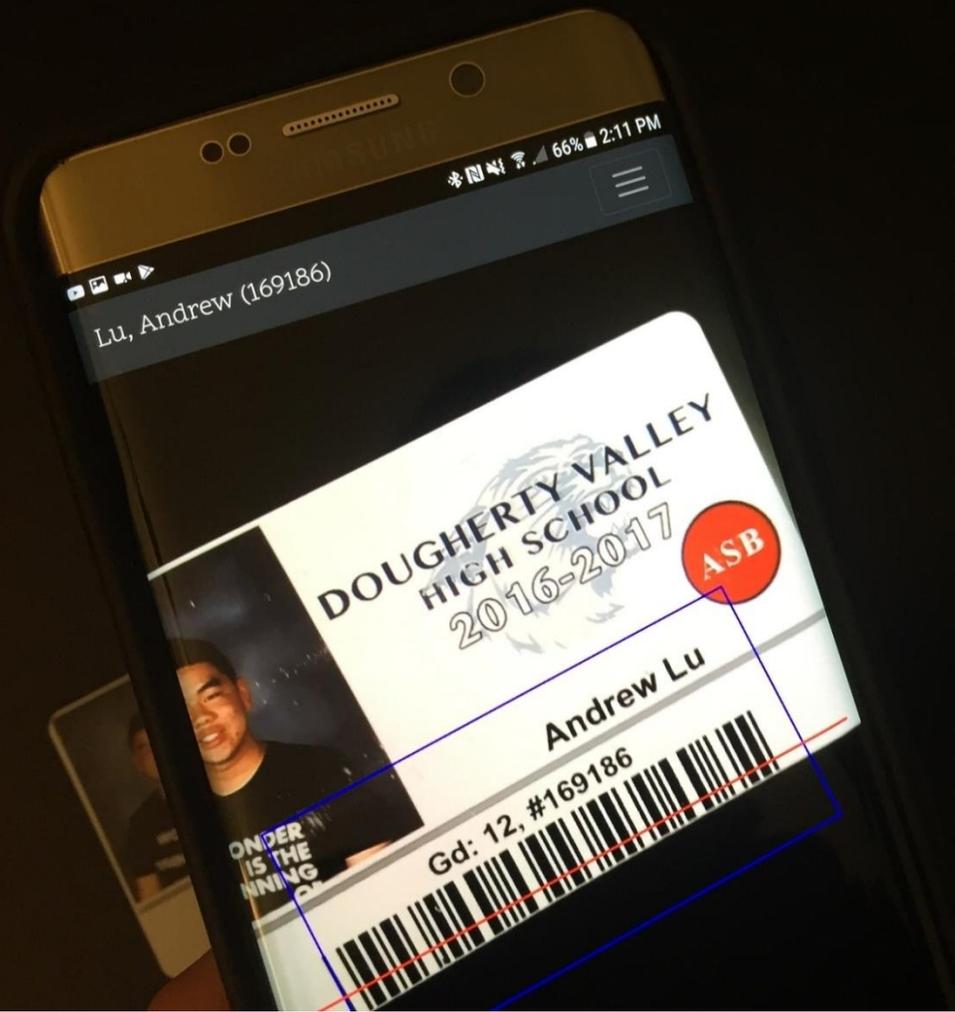
Originally created in 2016 for Blue Pearl 2017, this ticket scanner was implemented to replace the old method of checking students in – pen and paper. After an initial prototype was deployed, the mobile scanner received overwhelming support from the planning team, and was eventually developed into a standalone application.

This version of the Blue Pearl scanner is designed to be used without my help. After a year of revisions, the scanner has been redesigned to be run entirely by you, with no interaction on my part. This guide was created to help you make that happen.

As always, this product is not perfect. Should you run into any issues, you can always message me on Facebook at [m.me/andrewgege](https://www.facebook.com/m.me/andrewgege) and I will respond as soon as possible.

Thanks!

Andrew Lu



The Scanner

A fast, efficient, and paperless way to check in students that utilizes the technology you already have.

Best used on a phone or a tablet with a high-resolution rear-facing camera in portrait mode.

(Compatible devices listed on the next page)

Compatible Devices

All devices using Scanner must have a built-in camera and Wi-Fi access. Permission to access the camera must be granted to use Scanner.

Scanner is compatible with any device running one of the following device, operating system, and browser combinations:

- iOS Devices
 - iOS 11.0 or higher, using Safari (Recommended)
- Android Devices
 - Android 4.1 or above, using the latest version of Google Chrome (Recommended)
 - Android 5.0 or above, using Samsung Internet
- Windows Devices
 - Google Chrome version 50 or above (Recommended)
 - Run in Desktop mode if using Windows 8
 - Firefox version 57 or above
 - Windows 10, using Microsoft Edge
- Mac Devices
 - Google Chrome version 50 or above (Recommended)
 - Firefox version 57 or above
 - macOS El Capitan or higher, using Safari 11

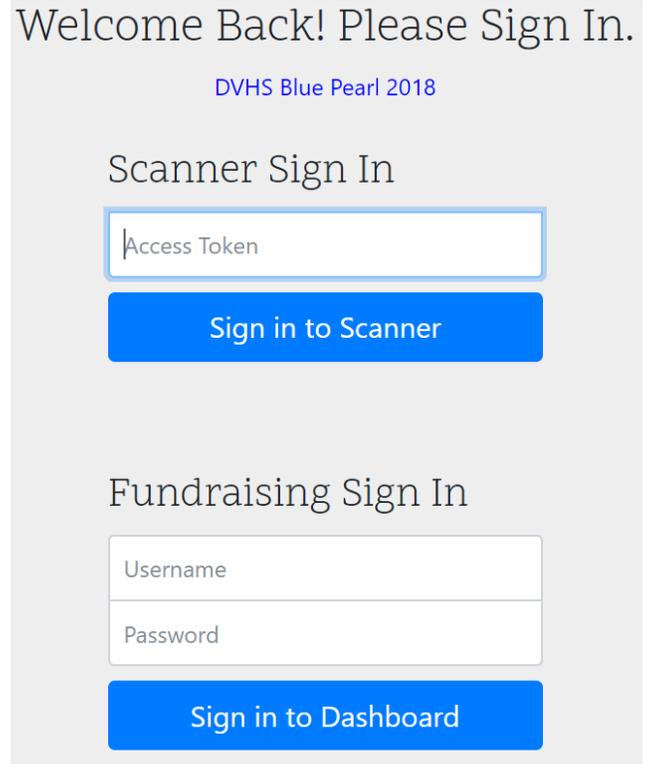
*There may be other devices or device/browser combinations (especially for computers) that work that are not listed above. Please let me know if something in this list is incorrect.

Source: <https://caniuse.com/#search=getusermedia>

Logging In

To log in to the scanner,

1. Visit dvhsbluecrew.github.io in any browser.
2. Click “Sign In” at the top of the page. You will be redirected to the page shown to the right.
3. Under “Scanner Sign In”, enter the access token assigned to you.
 - a. If you do not have a valid access token, please ask a Fundraising Committee head or other administrator to create one for you.
4. Click “Sign in to Scanner”.



>Welcome Back! Please Sign In.

DVHS Blue Pearl 2018

Scanner Sign In

Access Token

Sign in to Scanner

Fundraising Sign In

Username

Password

Sign in to Dashboard

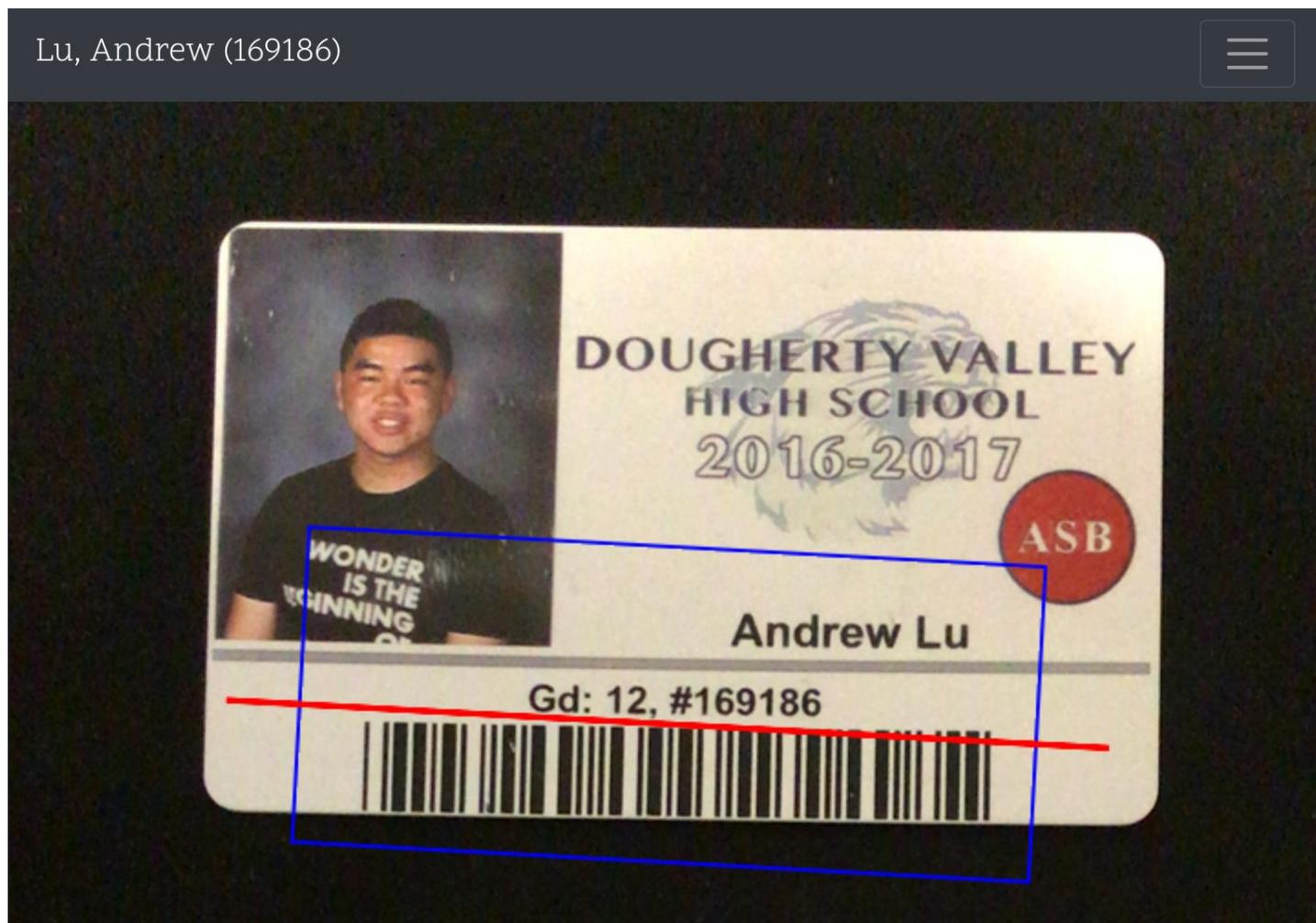
Some side notes:

- Scanner tokens expire after two hours of inactivity (after first use). If you are inactive for two hours, you’ll be taken back to this screen. You will have to get a new token from a Fundraising Committee head or other administrator to continue using Scanner.
- While it is possible to use one token on multiple devices, it is not recommended since errors can occur if two cards are scanned at the same time. This will hopefully be resolved in a future update.

Using the Scanner

Scanner works best when there is a decent amount of lighting in the area. If your device has a flashlight, use is not recommended as the glare created when the flash is pointed at an ID card may make it hard to read the barcode.

Checking in a student is easy. Just point the camera at the barcode on the student ID card, and watch the magic happen. When the script detects a barcode, a blue box will appear with a red line through the barcode.

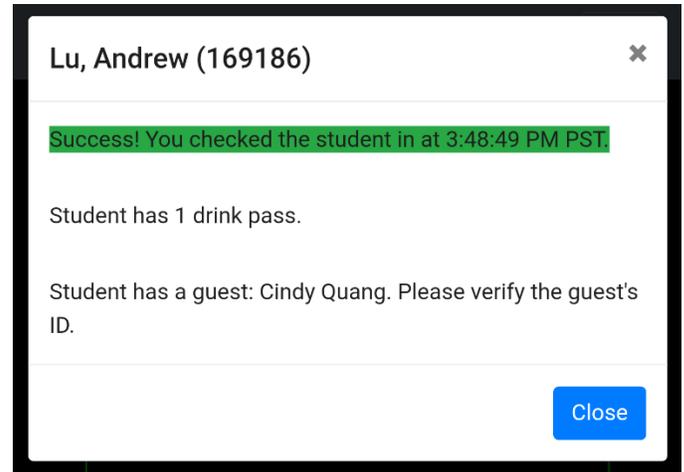


After an ID card has been scanned, one of the following popups will appear:

Success:

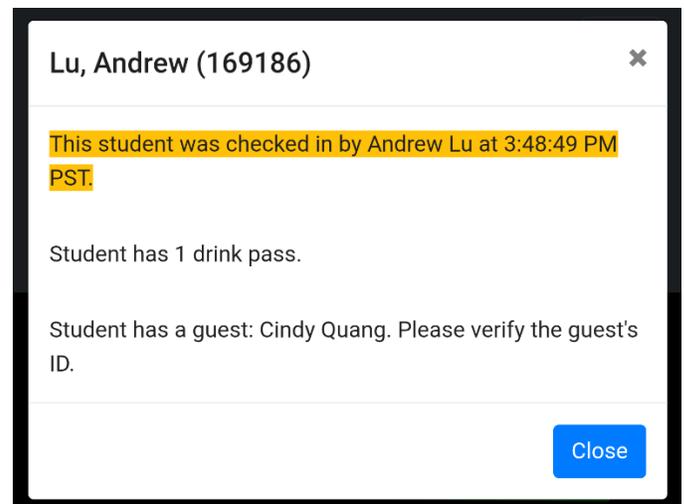
If the ID card is valid, the box will show “Success!” on the top, highlighted in green. Below that, the student’s drink pass and guest information are displayed.

- If a student purchased drink passes, give the student one wristband for each pass they purchased.
- If a student has a guest, ask for the guest’s ID. Verify that the name on the ID matches the name listed.
 - Please note that the guest must enter the dance with the student – they cannot enter separately.



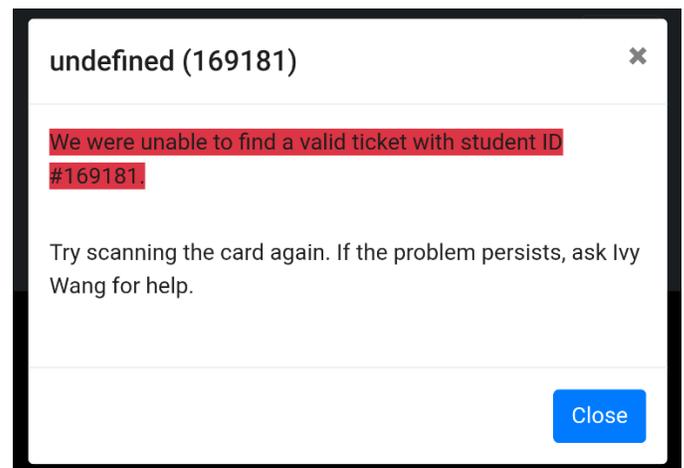
Already Checked In:

If a student has already checked in, subsequent scans will show this box. This box shows the time and the person that checked the student in, highlighted in yellow. Drink pass and guest information will be available for view as well.

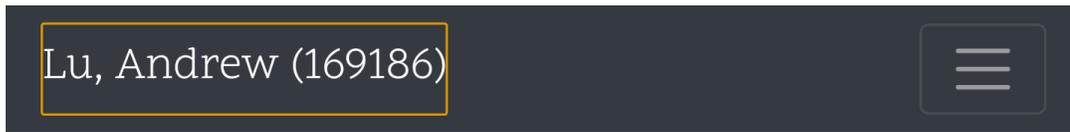


Invalid ID:

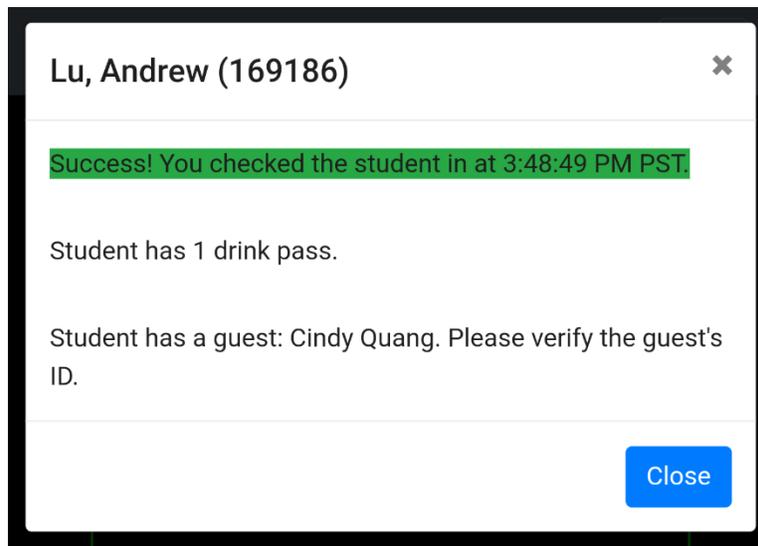
If the ID number cannot be found, the box will display an error highlighted in red. This means that they either did not purchase a ticket or there is another issue – see the Troubleshooting and Manual Check In sections at the end.



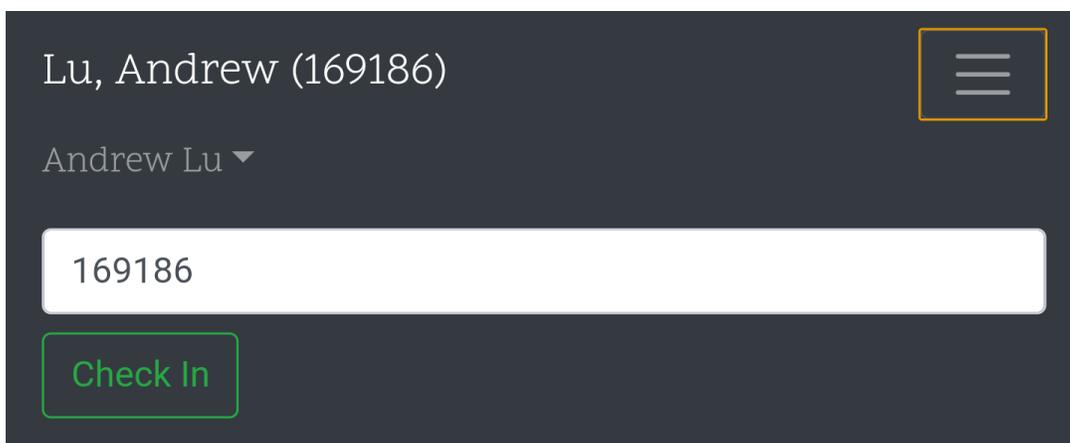
If you accidentally close the popup box too early (maybe you accidentally tapped outside the box), don't worry! You can always show the most recent scan again by tapping the student's name on the top bar.



This will show the same box that was produced by scanning the card.



The Options menu (available via the three lines on Mobile) allows you check in students by manually entering their ID numbers. This has the same effect as scanning the student's ID card via the camera. It will produce the same popup box. You can also log out of Scanner by tapping your name and selecting "Log Out".



Tokens and FC Accounts

What Are Tokens and FC Accounts?

Tokens and FC accounts differ in functionality. This chart compares the two.

Scanner Tokens	Fundraising Committee Accounts
<ul style="list-style-type: none">• Grant access to the scanner• Does not grant access to the dashboard and database• Allows the token bearer to check students in by scanning ID cards or manually entering ID numbers• One-time use – expire after two hours of inactivity	<ul style="list-style-type: none">• Grants access to the scanner, dashboard, and database• Allows the account holder to check students in by scanning ID cards or manually entering ID numbers• Account holder can view a list of all students and assign new tokens and accounts• Accounts do not expire (but will still require login after two hours of inactivity)• Should only be distributed to Fundraising Committee Heads and Teachers

There is no limit to the number of tokens and accounts you can have, but you should be cautious with who you distribute tokens and accounts to. This program does not prevent users from taking screen captures of student information, so only share tokens and accounts with people you trust. Active tokens and accounts can always be deleted at any time by anyone with an FC account.

The next few pages will show you how to create and delete tokens and FC accounts.

Create and Delete Tokens

Token Management

Create Token

Use this page to create a scanner token. This token will grant access to the mobile ticket scanner, but will not grant access to the online dashboard and database.

Enter the name of the person who will be using this token.

New tokens may be used anytime. After a token has been used, it will expire after two hours of inactivity. You can always create new ones by coming back here.

Create Token

Token creation is simple:

1. Navigate to the Token Management Page
2. Enter the token bearer's name into the text field
3. Click "Create Token"

This will create a one-time use token that can be used to access only the scanner. Newly created tokens do not expire. However, after first use, the token will expire after two hours of inactivity. New tokens can be created anytime.

Active Tokens

[Refresh Table](#)

Token	Name	Expiry Time	Deactivate Token
6SGY	Andrew Lu	12:35:57 AM PST	You can't delete your current token.
EE1H	Ivy Wang	12:00:42 AM PST	Click to Deactivate Token

You can find a list of all currently active tokens directly below the token creation form. This list shows all active tokens, the users they are assigned to, and their expiration times. If necessary, you can deactivate a person's token by simply clicking on "Click to Deactivate Token" next to their token. This will prevent that user from being able to scan any ID cards until they obtain a new token. **Please note that token deactivations cannot be undone.** However, you can always create new ones using the process above.

(Note: You can't deactivate the token you are currently using to access Dashboard)

Delete All Tokens

If your scanner users are experiencing unusually long load times during scans (longer than 3 seconds), then deleting deactivated tokens may help solve the issue.

Please note that this will delete every token, including all active tokens and excluding your current token, and that this action cannot be undone.

Delete All Tokens

If loading times are abnormally slow when checking in students (about 3-4 seconds), then deleting all tokens and resetting the token database may help. Since deactivated tokens are not removed from the system, the script will still cycle through it when it looks for a specific token. I'll try to solve this in a future update.

Deleting all tokens is as simple as clicking the "Delete All Token" button at the bottom of the Token Management page. This will delete all tokens, including all active tokens, but excluding your current token.

Please note that token deletions cannot be undone. However, you can always create new ones using the process on the previous page.

Create and Delete Accounts

FC Account Management

Create Fundraising Committee Account

Use this page to create a FC account. This account will be able to access the entire database, and should only be distributed to Fundraising Committee members.

Enter the full name of the person who will be using this account.

Enter the username that this person will use to log in. Anything is acceptable, as long as it's not empty.

Enter a password. Anything is acceptable, as long as it's not empty.

Please note that this is in no way a secure website. The app creator (Andrew Lu) can see your password, so don't use a password that you've used on another website. In addition, as of now, there is no way of changing it without deleting the account (sorry!).

FC accounts can view the entire database and manage users. As such, they should only be given to trusted Fundraising Committee heads and teachers.

Account creation is simple:

1. Navigate to the Account Management Page
2. Enter the account holder's name, desired username, and desired password into the text field
3. Click "Create Account"

Currently, there is no way to edit any of these settings after the account is created. However, if you really need to change one of the above settings, you can do so by creating a new account and then deleting the old account using your new account. I'll work on adding this in a future update.

Please note that this is in no way a super-secure website. While no other user will be able to see your password, the app creator (Andrew Lu) can still see it, so don't use a password that you've used on another website.

Active FC Accounts

[Refresh Table](#)

Name	Username	Currently Logged In	Delete Account
Andrew Lu	drewan	Yes	You can't delete your own account
Ivy Wang	ivy	No	Click to Delete Account

You can find a list of all active FC Accounts directly below the account creation form. This list shows all active account holders, their usernames, and whether they are currently logged in (have an active token) to Dashboard.

Anyone with an FC account can delete other FC accounts. To delete an account, simply click “Click to Delete Account” next to the user you would like to delete. This will instantly delete their Dashboard account and prevent them from accessing Dashboard, **but this will NOT delete any active scanner tokens they currently have.** Those must be deleted separately after account deletion.

Please note that account deletions cannot be undone. However, you can always create new ones using the process on the previous page.

(Note: You can't deactivate the account you are currently using to access Dashboard. This ensures that there is always at least one active account at any given time.)

- Overview
- Open Scanner
- Manage Tokens
- Manage Accounts
- View a List Of...
- Students Checked In
- Students Not Checked In
- All Students**
- Settings
- Open Database Spreadsheet

All Students (15)

[Refresh Table](#)

ID #	Name	Drink Pass	Guest	Checked In
100001	Lu, Andrew	Yes, 1	No	Yes, at 1:27:23 AM PST by Andrew Lu
100002	Wang, Ivy	Yes, 1	No	Yes, at 1:27:28 AM PST by Andrew Lu
100003	Lu, Steven	Yes, 1	No	Yes, at 1:27:35 AM PST by Andrew Lu
100004	Lee, Daniel	No	No	Yes, at 1:27:38 AM PST by Ivy Wang
100005	Chan, Helena	No	No	Yes, at 1:27:41 AM PST by Ivy Wang
100006	Cha, Amy	No	No	Yes, at 1:27:47 AM PST by Ivy Wang
100007	Quang, Cindy	Yes, 1	Yes, Dorothea Cheung	No. Click to Check In
100008	Chan, Kimberly	No	No	No. Click to Check In
100009	Kim, Kristina	Yes, 2	No	No. Click to Check In
100010	Gultom, Daniel	Yes, 3	No	No. Click to Check In
100011	Chisholm, Andrea	Yes, 1	No	No. Click to Check In
100012	Huynh, Nathan	No	No	No. Click to Check In

The Dashboard

A one-stop shop to view recent check-ins, view the guest list, manage scanner users, and of course, check in students.

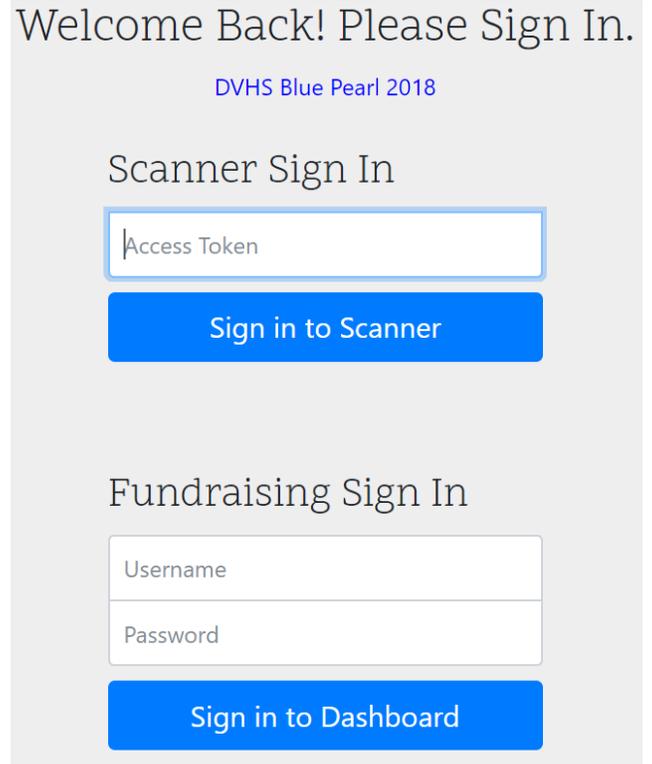
Best viewed on a desktop or on a tablet in landscape mode.

(Sidebar may not be visible on smaller screens)

Logging In

To log in to the dashboard,

1. Visit dvhsbluecrew.github.io in any browser.
2. Click “Sign In” at the top of the page. You will be redirected to the page shown to the right.
3. Under “Fundraising Sign In”, enter the credentials assigned to you.
 - a. If you do not have credentials, you must ask someone who does to assign them to you.
4. Click “Sign in to Dashboard”.
 - a. Be sure to only do this once – you may get signed out if you click multiple times.



>Welcome Back! Please Sign In.

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Scanner Sign In

Access Token

Sign in to Scanner

Fundraising Sign In

Username

Password

Sign in to Dashboard

Some side notes:

- You can only be signed in to Dashboard on one browser at a time. Signing in on a second browser will log you out of the first browser.
- Signing in to Dashboard assigns you a new token that can be used to access Scanner. To access Scanner, you can either click the link in your dashboard or find your token and sign in to Scanner separately.
- Sessions expire after two hours of inactivity. If you are inactive for two hours, you’ll be taken back to this screen.

Features of the Dashboard

Navigation

The screenshot shows a dashboard with a dark header bar containing 'Dashboard', 'Hello, Andrew Lu!', 'Sign Out', an 'ID#' input field (marked with a yellow circle '1'), and a 'Check In' button. A blue sidebar on the left has 'Overview' selected. Below it are links: 'Open Scanner' (marked with a yellow circle '2'), 'Manage Tokens', 'Manage Accounts', 'View a List Of...', 'Students Checked In', 'Students Not Checked In', 'All Students' (marked with a yellow circle '3'), 'Settings', 'Open Database Spreadsheet', and 'Spreadsheet'. The main content area says 'Welcome Back!' and features a pie chart titled '% Checked In' for 'All Students' showing 60% (red) and 40% (green). To the right is a 'Quick Links (for Mobile)' section with links for 'Open Scanner', 'Manage Tokens', and 'Manage Accounts'.

1. Manual Check In

Student ID card not scanning? On the top right corner of every page, you can manually check in a student by entering their ID number.

2. Scanner

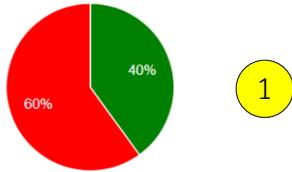
Want to scan cards? Simply click “Open Scanner”, and you’ll automatically be logged in to Scanner with your token. Want to create a new token for someone else? Head over to “Manage Tokens” to create one anytime.

3. View a List Of...

To view a list of all students, or only students that have checked in (or not checked in), just click the corresponding link on the sidebar. In addition, you can click “Open Database Spreadsheet” to view the database in Google Sheets (if the spreadsheet is shared with you).

Welcome Back!

Quick Links (for Mobile)



[Open Scanner](#)

[Manage Tokens](#)

[Manage Accounts](#)



% Checked In

All Students

Recent Check-Ins



Table displays 25 most recent check-ins. Table refreshes every five seconds.

ID #	Name	Drink Pass	Guest	Check In Time
100006	Cha, Amy	No	No	1:27:47 AM PST, by Andrew Lu
100005	Chan, Helena	No	No	1:27:41 AM PST, by Andrew Lu
100004	Lee, Daniel	No	No	1:27:38 AM PST, by Andrew Lu
100003	Lu, Steven	No	No	1:27:35 AM PST, by Andrew Lu

1. Percent Checked In

A simple, self-updating pie chart that displays the percentage and number of people checked in. You can mouse over pie slices to view percentages and numbers if the pie is too small.

2. Recent Check-Ins

A self-updating table that shows the 25 most recent check-ins. Shows student name and ID number, # of drink passes, and guest information, as well as check-in time and the person who checked the student in.

3. Quick Links

If the width of the screen is too small (mobile devices), then the sidebar will be hidden with no way to access it. Bootstrap provides no way of getting to it, so these links have been provided for easy access.

All Students (15) 1

[Refresh Table](#)

ID #	Name	Drink Pass	Guest	Checked In
100001	Lu, Andrew	Yes, 1	No	Yes, at 1:27:23 AM PST by Andrew Lu
100002	Wang, Ivy	Yes, 1	No	Yes, at 1:27:28 AM PST by Andrew Lu
100003	Lu, Steven	Yes, 1	No	Yes, at 1:27:35 AM PST by Andrew Lu
100004	Lee, Daniel	No	No	Yes, at 1:27:38 AM PST by Ivy Wang
100005	Chan, Helena	No	No	Yes, at 1:27:41 AM PST by Ivy Wang
100006	Cha, Amy	No	No	Yes, at 1:27:47 AM PST by Ivy Wang
100007	Quang, Cindy	Yes, 1 2	Yes, Dorothea Cheung	No. Click to Check In
100008	Chan, Kimberly	No	No	No. Click to Check In
100009	Kim, Kristina	Yes, 2	No	No. Click to Check In
100010	Gultom, Daniel	Yes, 3	No	No. Click to Check In 3
100011	Chisholm, Andrea	Yes, 1	No	No. Click to Check In
100012	Huynh, Nathan	No	No	No. Click to Check In
100013	Swee, Steven	Yes, 1	Yes, Stephanie Yeo	No. Click to Check In
100014	Abdelmalek, Ryan	No	Yes, Connie Huynh	No. Click to Check In
100015	Wu, Andy	No	No	No. Click to Check In

1. Lists

You can view a list of all students, or you can choose to view only students that have checked in or students that have not checked in.

2. Table

Shows each student's name and ID number, # of drink passes, and guest information, as well as whether they have checked in. If they are checked in, info will be displayed. If not, you can check them in with one click.

3. Click to Check In

Issue where the student's ID card is not working? Student forgot their ID card? You can click "Click to Check In" next to the student's name in the table to manually check them in.

Manual Check In

When scanning an ID card just doesn't work.

There are many scenarios that would require you to manually check a student in. I've listed some below:

- Student did not bring this year's ID card
 - Older ID cards are not guaranteed to work with this system
- Student forgot their ID card
- Barcode on the student's ID card is too small to be read
 - Usually for students who obtained their ID card outside of registration

Fortunately, there are a few ways to manually check a student in.

From Scanner and Dashboard:

- Locate the text box labeled "ID #" on the top right corner or the three lines on Mobile
- Enter the student's ID number on the ID card in the textbox.
- Click "Check In". The appropriate box will show up.

100013 Check In

Swee, Steven (100013) ×

Success! You checked the student in at 2:35:24 PM PST

Student has 1 drink pass.

Student has a guest: Stephanie Yeo. Please verify the guest's ID.

Close

From Dashboard:

- Locate the student you would like to check in via one of the tables
- Click "Click to Check In" next to their name. The appropriate box will show up.

100013	Swee, Steven	Yes, 1	Yes, Stephanie Yeo	No. Click to Check In
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Troubleshooting

What to do when issues arise.

There are guaranteed to be cases where someone's ID card will consistently return you an error message, saying their card is not valid. If this happens, you can try to resolve the issue.

Please have your ticket manager (the person in charge of the Webstore, most likely your FC head) perform these steps:

1. Try to manually check the student in
 - a. In Dashboard or Scanner, enter their ID number in the top right corner (see Manual Check In above).
 - i. If that works, great! They probably had an older ID card, or the barcode was too small to read.
 - ii. If not, continue with the steps below.
2. Try to look for the student via the Dashboard
 - a. In Dashboard, click on "All Students" or "Students Not Checked In".
 - b. Using the find feature in your browser (CTRL + F), search for the student's name.
 - i. If it appears, you can check them in via the link provided.
 - ii. If not, continue with the steps below.
3. Search for the student's name in the Database spreadsheet
 - a. Ask anyone with access to the database spreadsheet to search the spreadsheet for the student's ID and name.
 - i. If you find it, great! There was probably an issue with Scanner. Let me (Andrew Lu) know and he can investigate.
 - ii. If not, continue with the steps below.

4. Ask the student if they can show you their Webstore receipt on their phone.
 - a. Write down a few things:
 - i. The Webstore receipt number
 - ii. The items they purchased
 - iii. Their ID number(s)
 - b. Ask your ticket manager to search that webstore receipt number in the email account containing all webstore receipts. See if you can find the exact receipt
 - i. If yes, look to see if everything on the student's receipt matches yours. Check for the items purchased and ID numbers.
 1. If everything matches, great!
 2. If not, or if you can't find the receipt, continue below.
5. At this point, there is no other way to verify if the student has successfully purchased a ticket. You can refer them to your music director (or send them away).

Please note that everyone attending the dance, including the photographers, choir performers, and baristas (but excluding Jazz Band students), need to purchase tickets. If a performer does not have a ticket, refer them to the Music directors, and leave it to them to decide whether they can attend.

If you have any questions regarding how to use Scanner, you can always contact me via one of the following methods:

- Email
 - alu@ucsb.edu
 - andrewgege@gmail.com
- Facebook Messenger
 - m.me/andrewgege
- Text Message (for urgent issues)
 - (510) 928-2668

I hope everything runs smoothly! Have an amazing time at Blue Pearl!