



FBLA NavigatorTM

Documentation

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Easton Area High School

2019-20

Running the App

This mobile application was developed in C# using Visual Studio 2019 and the Xamarin Platform on Microsoft Windows. Contained within the competition submission is a folder named “CompiledApp” that contains a signed APK that was created for Android phones and emulators. Simply install the APK to your Android mobile device and run.

Build Instructions

Visual Studio Requirements:

Visual Studio 2019 Windows Community Edition

Xamarin.Forms

Android Platform 28 SDK (Pie)

In order to build for Android you will need Visual Studio or Visual Studio for Mac. Upon opening the Visual Studio solution it will immediately download all necessary packages from Nuget. You will need to execute a debug version of the FBLAManager.Android project either on an Android emulator or by connecting an Android mobile device that has Developer Options and Enable USB debugging turned on.

Project Requirements

Topic: Develop an app for local chapters to manage their chapters.

The app must include:

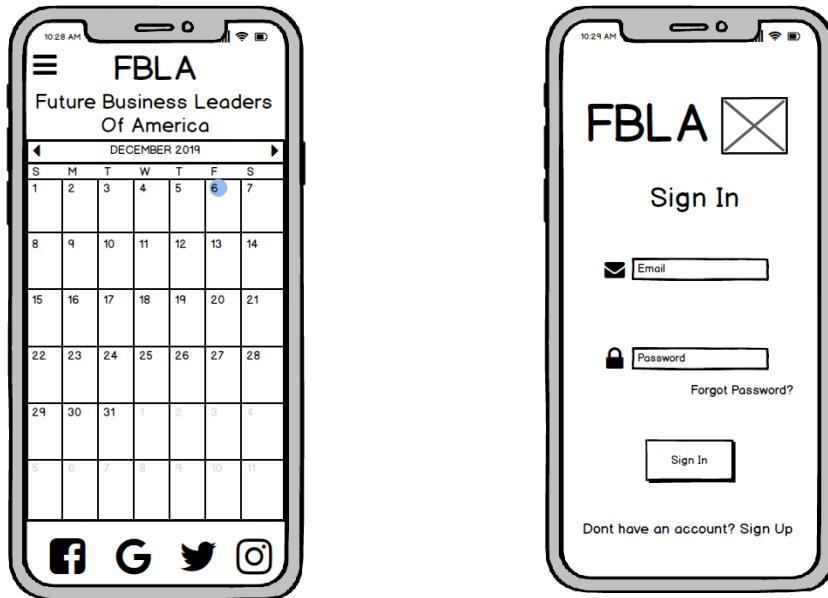
App Name	FBLA Navigator
About FBLA	The About FBLA Page
Join FBLA (form)	The Sign Up Page
Calendar	The Calendar Month Page The Calendar Day Page
Links to FBLA websites	The About FBLA Page
Local Officer Team	The Officer Pages
Links to Social Media	The Social Media Page
Competitive Events	The Competitive Events Page
Current Events	The Home Page The Meetings and Events Pages
Sign-up for a current event (either competitive event, fundraiser, or community service)	The Meetings and Events Pages The Events Detail Page
Q&A	The Q and A Page
Contact Us	The Contact Us Page
Track chapter meeting attendance	The Meetings Detail Page
Designed for Phone/Tablet	Cross-Platform Android / iOS
Mobile-based	Cross-Platform Android / iOS
Licensing and Terms of Use	The About FBLA Navigator Page The Terms of Service Page The Privacy Policy Page

FBLA Navigator Documentation

Planning Process

Our planning and development process utilized the Scrum Agile methodology, a common approach in industry.

- We started by interviewing our local FBLA coordinator and gathering user stories, features that potential users would like to see in the app.
- To organize our project, we used Zenhub, a project management plugin for Github. We made the user stories and official project requirements issues in Github Issues and later organized them with Zenhub.
- One of our first issues was creating mockup page designs, which we did through Balsamiq. These designs gave us an idea of what our app should look like, and what layouts to create in our front end code.



- We worked on issues in periods of three-week sprints. After each sprint, we held a sprint review to go over what went right, what went wrong, and how we could improve the development process.
- We also held weekly stand-up meetings to track each member's progress and see where we needed help.
- We added and revised code on different branches in Github, so that we could ensure that code would be error-free before being committed to the master branch.
- At the end of each sprint we would review whether the code was production-ready through the creation of a pull request. While the pull request was open the team reviewed changes to production code. If the team warranted that the code was ready to commit to production, a pull request was accepted and merged into the master branch.

Project Zenhub Pipeline

The screenshot shows the GitHub repository for 'FBLA Manager' with the Zenhub integration. The pipeline is organized into six stages:

- Product Backlog:** Contains issues like 'FBLAManager #9 As an FBLA officer, I want a message board so that I can post announcements.' and 'FBLAManager #15 As a club supervisor, I want to send alerts to members so that I can remind them about things.'
- Sprint Backlog:** Contains issues like 'FBLAManager #25 Frontend / Backend Integration' and 'FBLAManager #27 Integrate "Contact Us" Frontend / Backend'.
- In Progress:** Contains issues like 'FBLAManager #6 As a club member, I want links to social media so that I can further connect with the club.' and 'FBLAManager #14 As a student, I want a FBLA Q&A section so that I have common questions answered.'
- Under Review:** Contains issues like 'FBLAManager #21 As a user, I want a homepage that displays a feed for the club (message board), so that I can view new developments...'. This stage also includes a 'mandatory' epic.
- Done:** Contains issues like 'FBLAManager #26 Integrate login and register frontend / backend' and 'FBLAManager #28 Integrate event detail pages'.
- Closed:** Contains issues like 'FBLAManager #29 App crashes when viewing officer page' and 'FBLAManager #30 Competition Entry Candidate'.

Each stage has a 'Filter by Epic Issues' button and a 'mandatory' label. The 'Closed' stage also includes a 'bug' label.

Our project pipeline was organized into a series of stages, with each stage having a User Story that was entered into the Github Issues tracker. Issues were moved from stage to stage until they were eventually closed.

1. Product Backlog - All stories we intend to work on for the project
2. Sprint Backlog - The current list of stories that we are focusing on during a particular sprint
3. In Progress - Stories that are actively claimed by a developer on the team and are currently under development
4. Under Review - Stories that have been finished and need to be reviewed by the team
5. Done - Stories that have been reviewed and are now complete
6. Closed - Issues that either are no longer needed or have been merged via PR (Pull Request)

FBLA Navigator Documentation

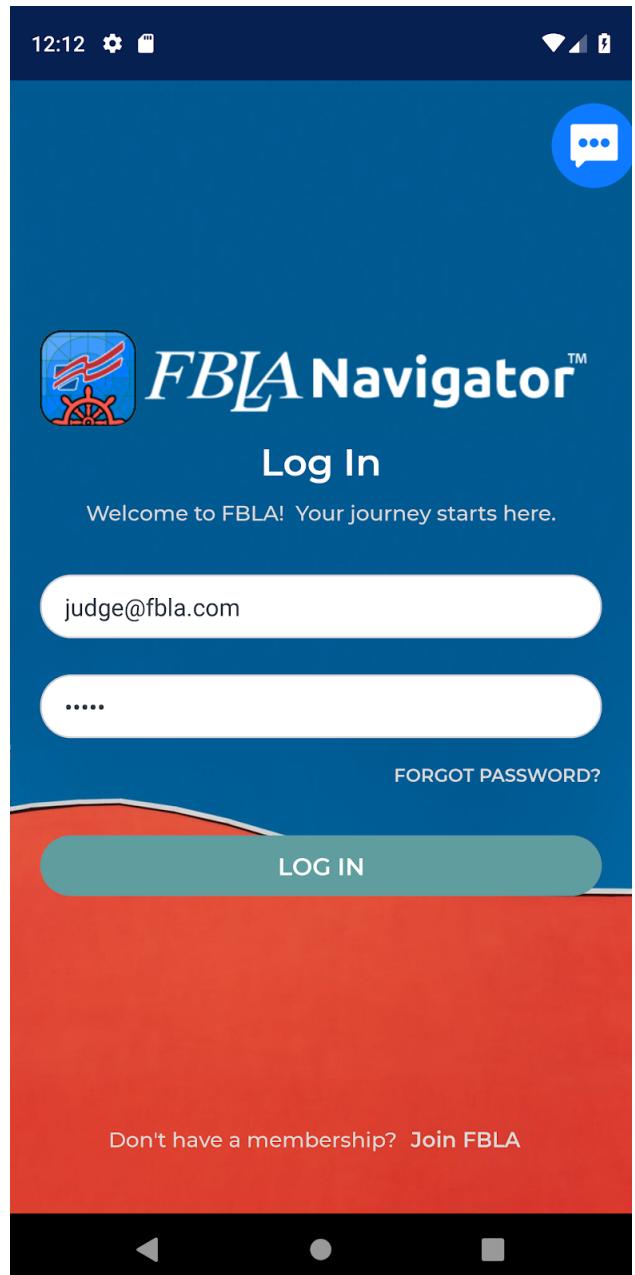
Screenshots

The Login Page

This is the first page users see when they open the app. From here, users may input their login credentials and tap the “Log In” button to navigate to the home page.

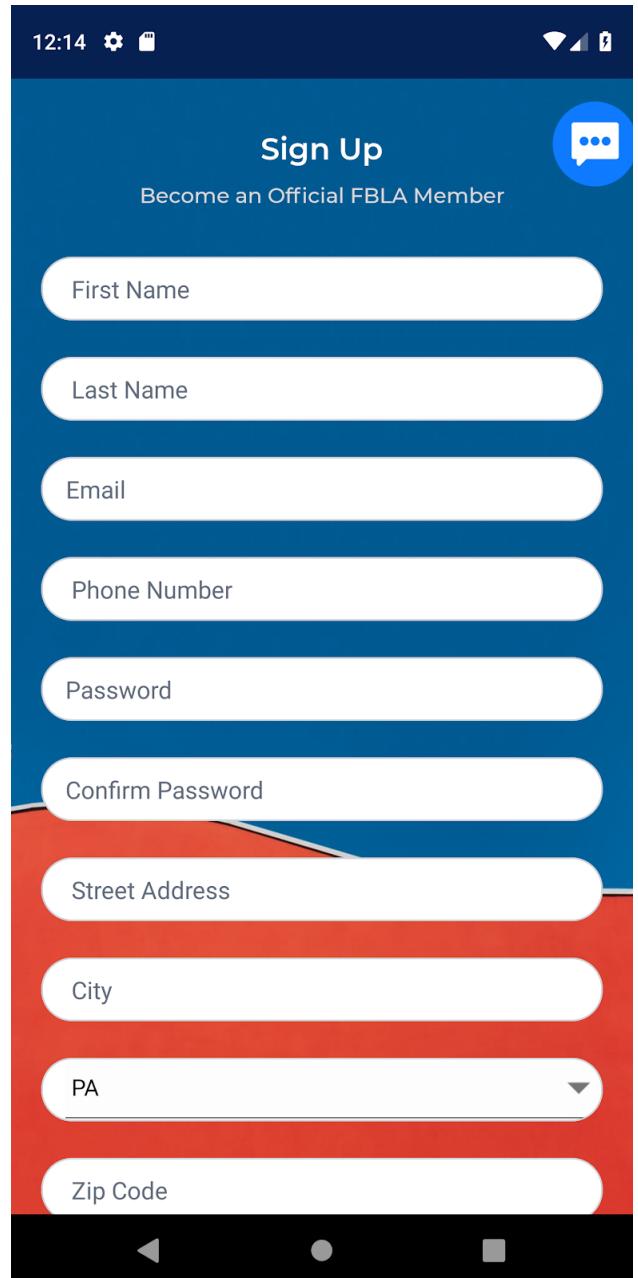
First time users can tap the “Join FBLA” button at the bottom to navigate to the sign up page. If a user has forgotten his or her password, the user may tap the “Forgot Password” button to go to the forgot password page.

If a user experiences a bug, he or she may report it at any time by tapping the light blue button in the upper right corner to describe the error through InstaBug.



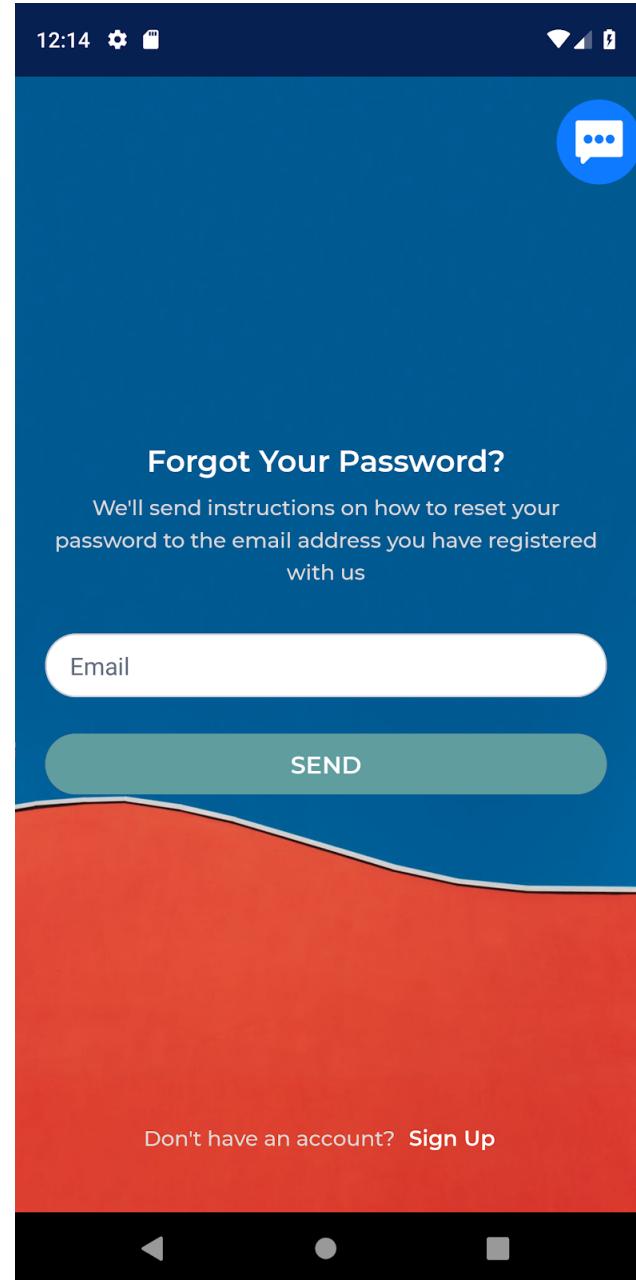
The Sign Up Page

On this page, first-users users may sign up to create an account and join FBLA. After inputting all their information, users sign up by tapping the “Sign Up” button at the bottom. If they have input information correctly, they will directly navigate to the home page. Each user’s account information is stored in the backend.



The Forgot Password Page

On this page, users may type in their email address to reset their password. An email with a password reset link will be sent to the given email address.

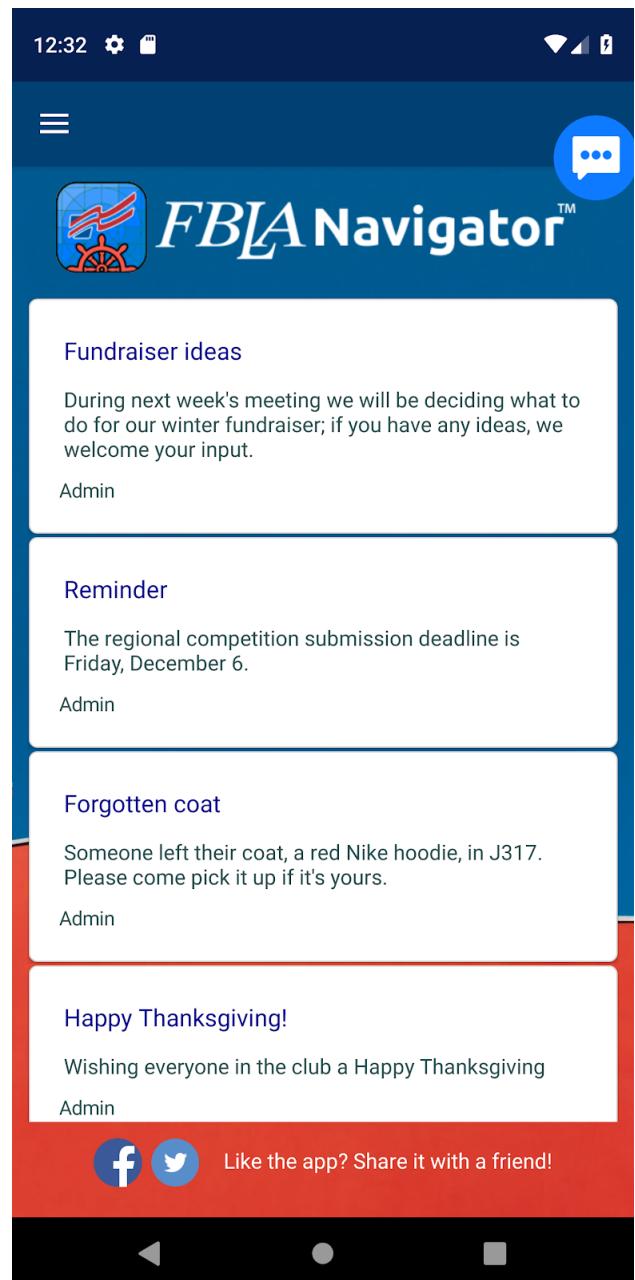


The Home Page

Upon logging in, users navigate to the home page. To navigate to other pages, users can tap the “hamburger icon” in the upper left corner to open the flyout navigation menu, which is accessible on every page in the logged-in state.

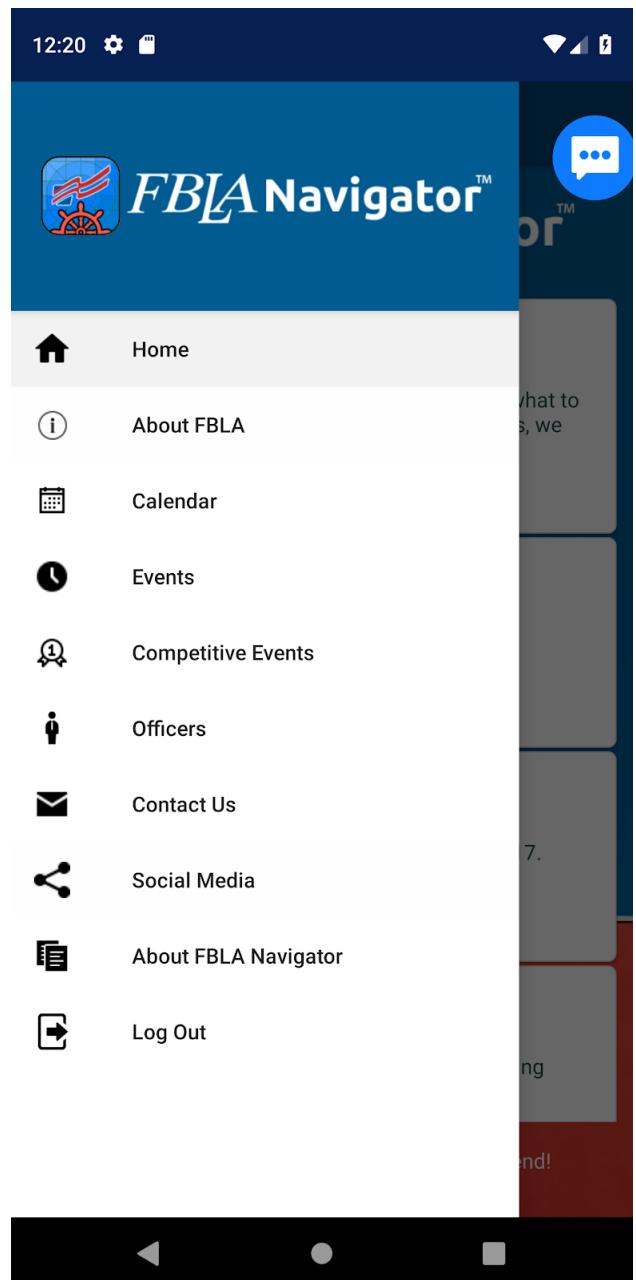
Users view a message board on this page which displays messages sent by club admins through the backend website.

Users may share the app by tapping the Facebook and Twitter icons at the bottom.



The Navigation Menu

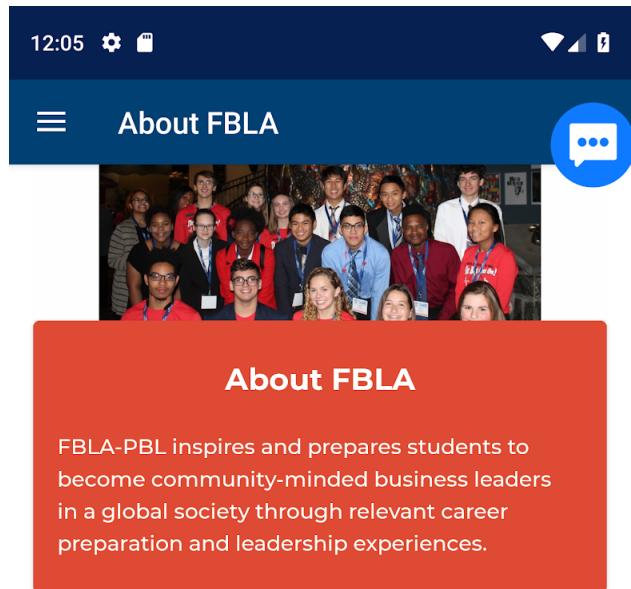
From this menu, accessed through the hamburger icon in the upper left corner, users may navigate to any other page within the app. Users are also able to log out through the menu by tapping the “Log Out” button at the bottom of the menu.



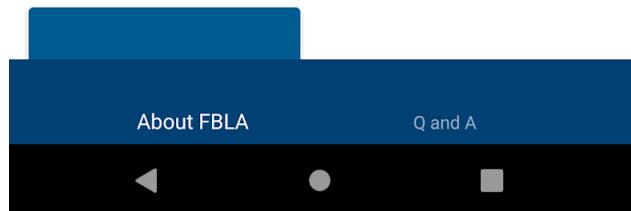
The About FBLA Page

From this page, users may read about FBLA and learn more about FBLA by accessing the FBLA website links.

Users may navigate to the Question and Answer page by tapping the “Q and A” in the bottom tab.



Website Links



The Q and A Page

This page contains FBLA questions and answers for users to learn more about the organization. Users can view more questions and answers by scrolling down.

12:18 ⚙️ 🔋

≡ Q and A

What is FBLA's mission statement?

Our mission is to bring business and education together in a positive working relationship through innovative leadership and career development programs.

What are the official colors of FBLA?

The official colors of FBLA are blue and gold.

Who is the founder of FBLA?

Hamden L. Forkner founded FBLA in 1937.

What are the Five Regions of FBLA?

The Five Regions of FBLA are the Western, Mountain Plains, North Central, Southern and Eastern Regions.

In the absence of the president at a chapter meeting, which officer serves as the presiding officer?

The Vice-President.

In the absence of the president and vice-president at a regular meeting, who should call the meeting to order?

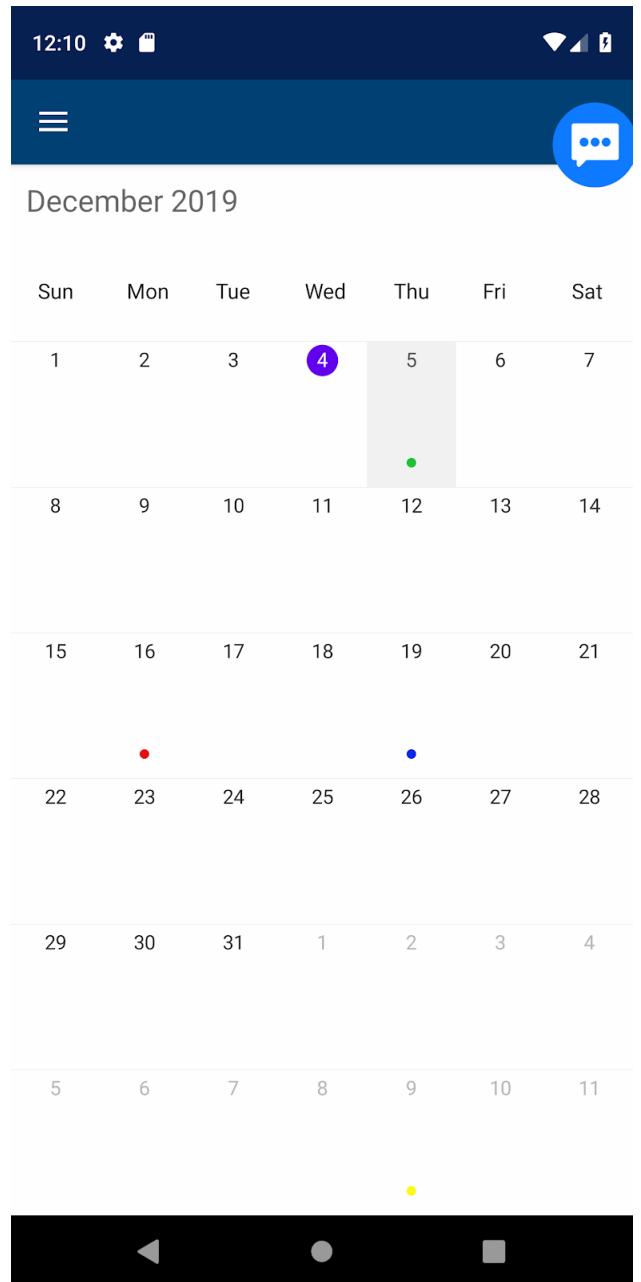
The Secretary.

About FBLA Q and A

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The Calendar Month Page

This page contains a calendar displaying the dates of events taking place in a given month. Users can navigate to different months by swiping left or right. They can access the schedule of a certain date by tapping on the cell for that date.

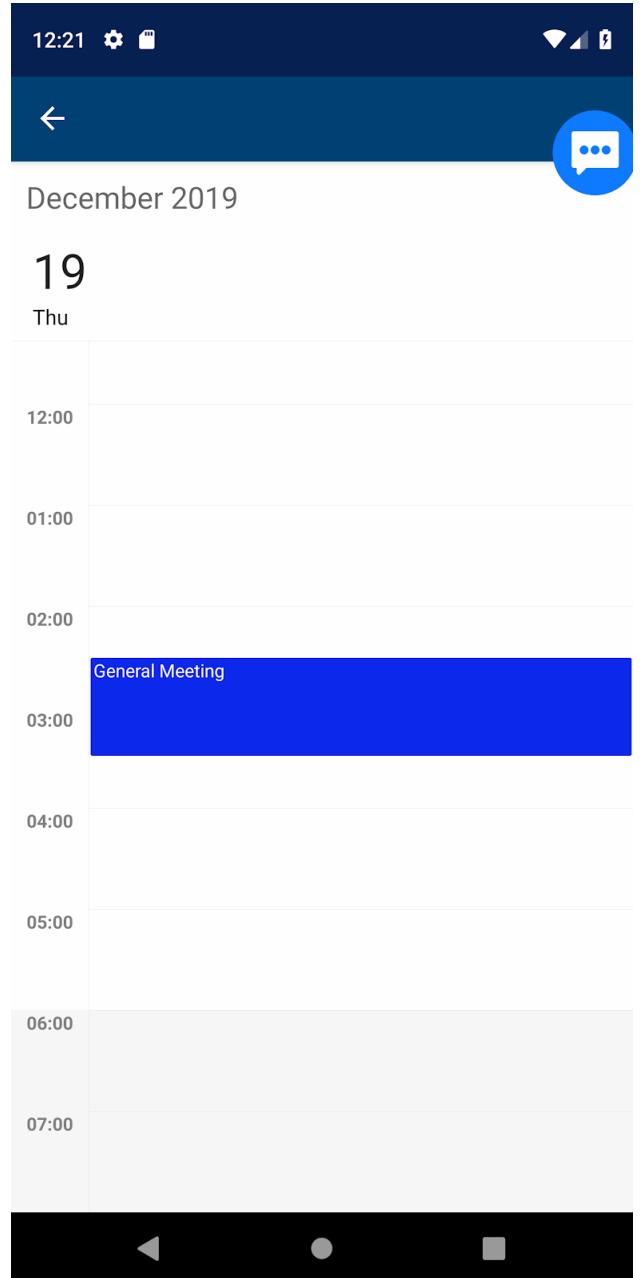


The Calendar Day Page

This page contains an hourly schedule displaying the times of events taking place in a given day.

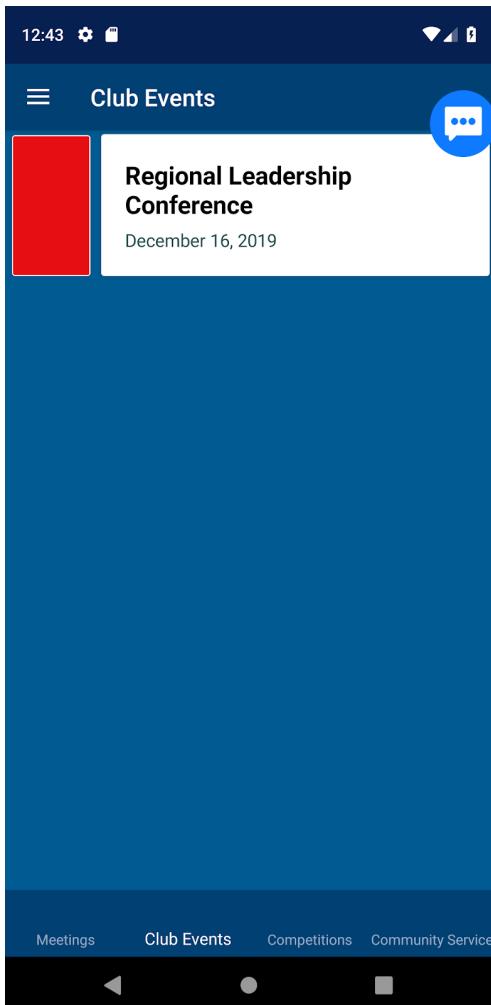
Users can navigate to the detail page of a displayed event by tapping on the colored block for the given event.

Users can navigate to the calendar month page by tapping the back arrow in the upper left corner.

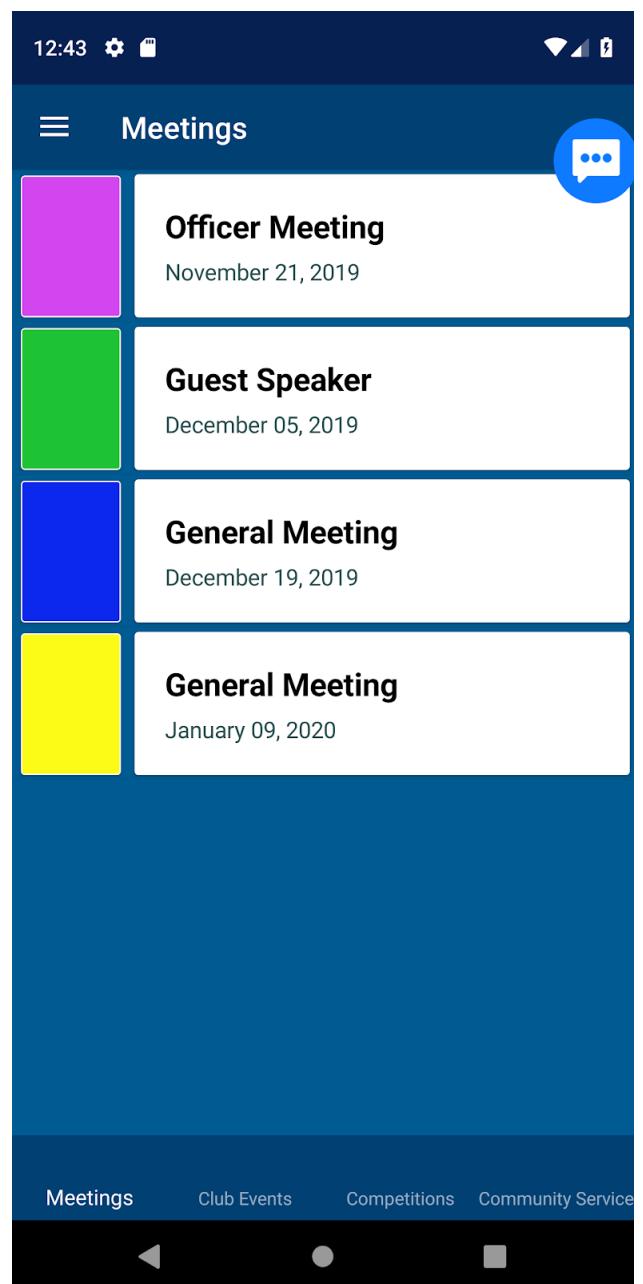


The Meetings and Events Pages

These pages display a list of upcoming events, sorted by event types. Users can tap on an event type at the bottom tab to view events of that type. Users can navigate to the detail page of a given event by tapping on the event.

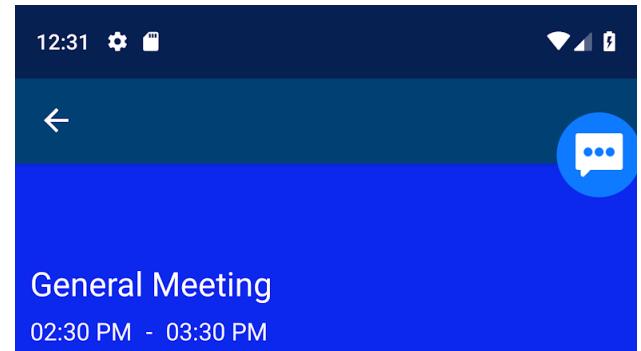


FBLA Navigator Documentation



The Meetings Detail Page

This is the detail page for events of type meeting. Users can sign in to the meeting by tapping the “Sign In” button and inputting the password for the meeting, which is set by the club admins when they create the meeting in the backend. A list of members who have signed in appears at the bottom of the page, allowing meeting attendance to be tracked.

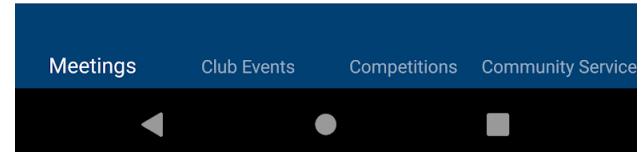
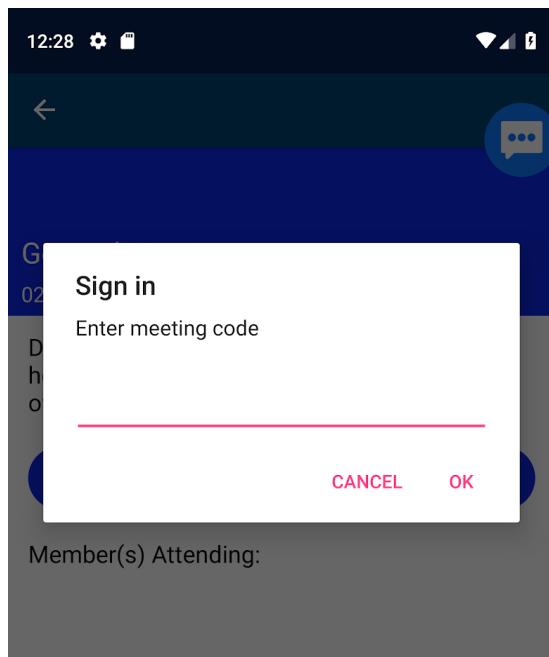


Discussing this past years goals, upcoming holiday events, and progress report from officers. Will be in J317.

SIGN IN

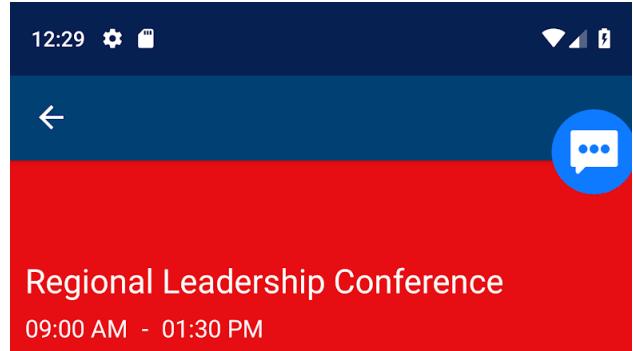
Member(s) Attending:

FBLA Judge



The Events Detail Page

This is the detail page for events of type club events, fundraisers, and community service. Users can sign up for the event by tapping the “Sign Up” button. A list of members who have signed up for the event appears at the bottom of the page.

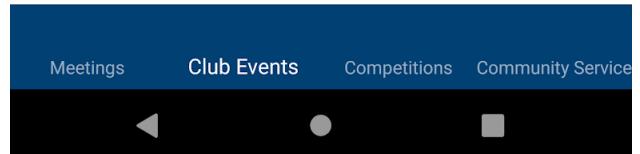


Opportunity for club members to meet local leaders in their community. At Lehigh Carbon Community College.

[SIGN UP](#)

Member(s) Attending:

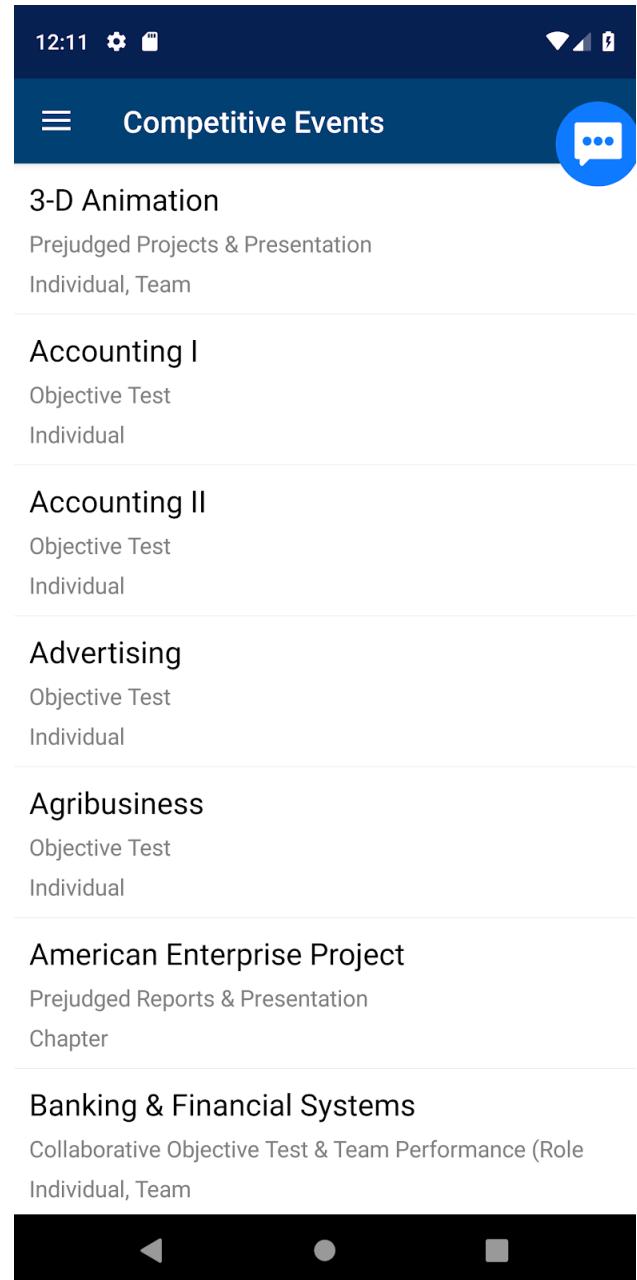
FBLA Judge



The Competitive Events Page

This page displays a list of all the competitive events offered by FBLA. Users can see more events by scrolling down.

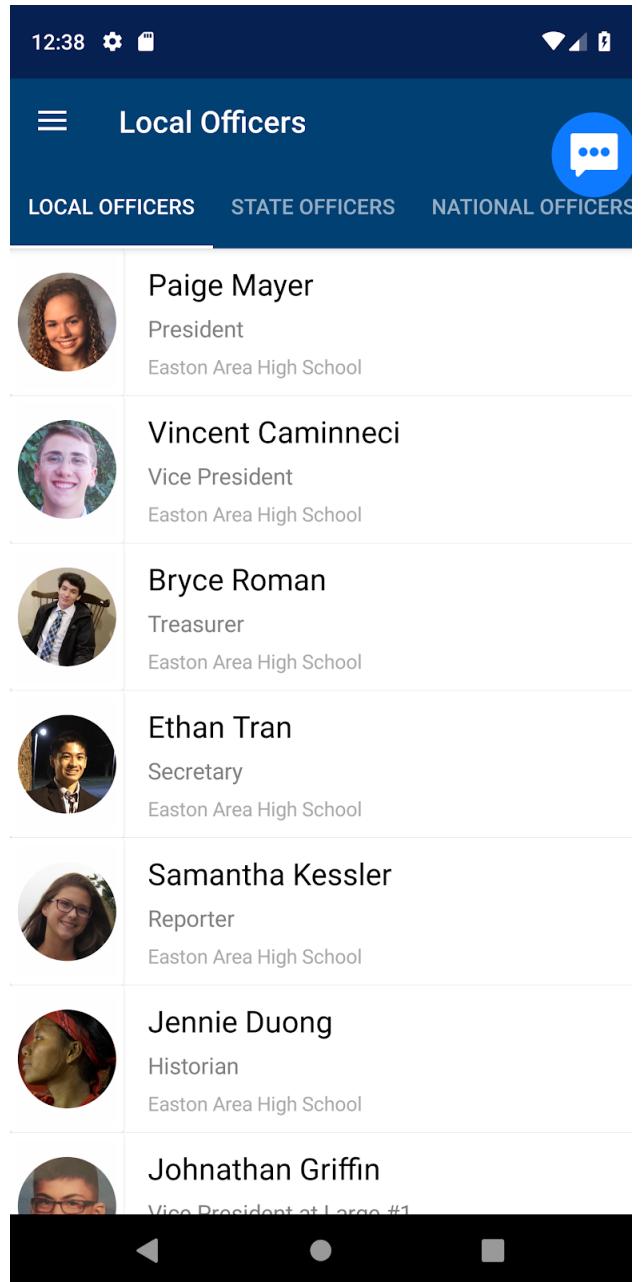
Tapping on an event takes the user to the FBLA web page for that event.



The Officer Pages

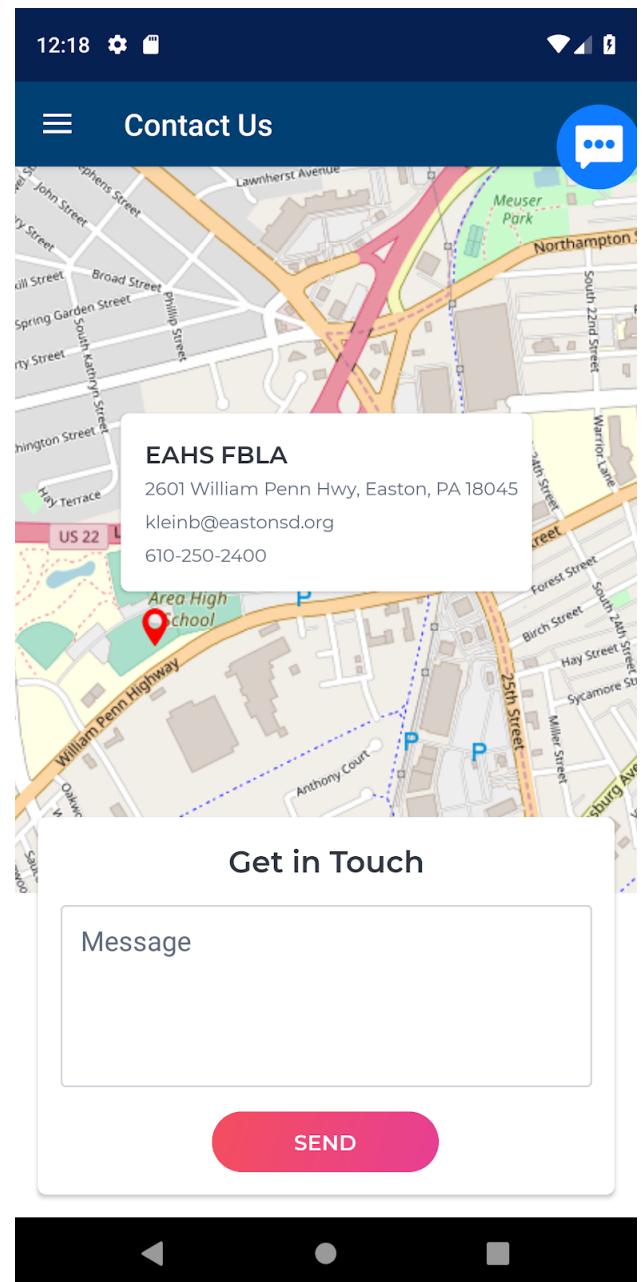
On these pages, users can view a list of their officers, including each officer's position and school.

Users can navigate between their local, state, and national officers through the tabs at the top.



The Contact Us Page

On this page, users may type a message to send to their local FBLA chapter director from their logged in email.



The Social Media Page

Here users may access the social media pages of their local and state FBLA organizations, as well as the national FBLA organization. Tapping on an icon opens a link to the respective social media page.



The About FBLA Navigator Page

This page contains information about the app, directly linking to the READ ME.

Users can navigate to the terms of service and privacy policy pages through the tabs at the bottom.



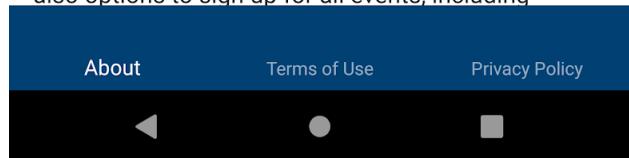
FBLA Navigator 1.0 README

By Makenna Swartz, Daniel Simboli, Adil Ansari

Easton Area High School

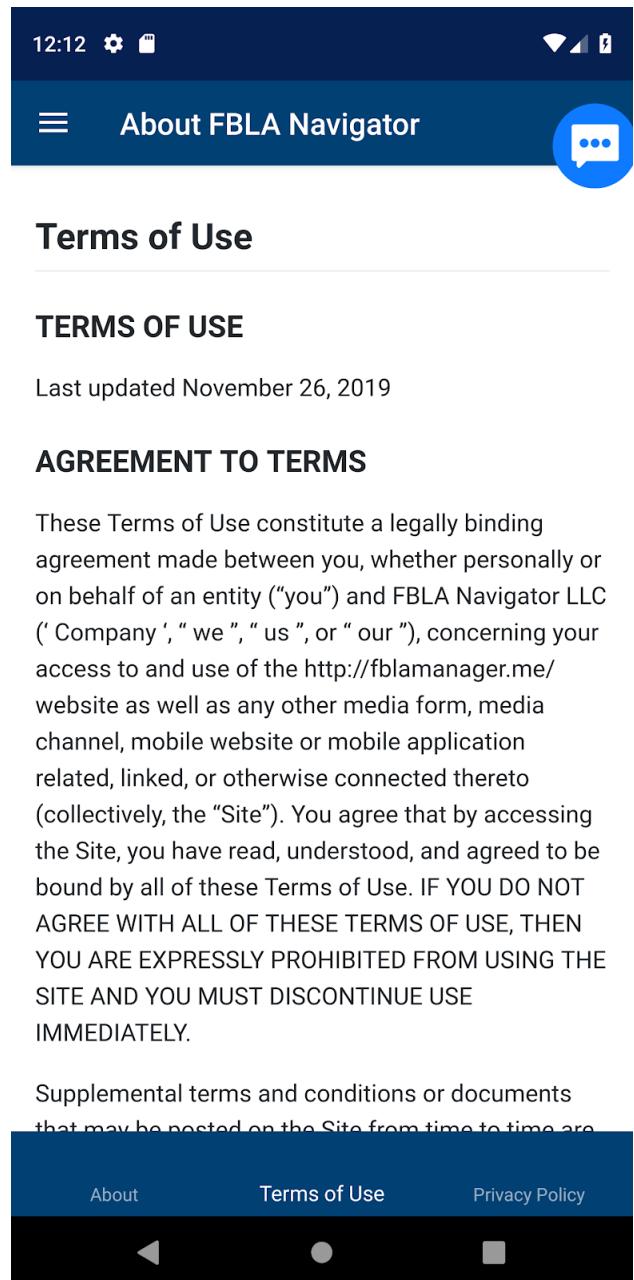
Easton, PA

FBLA Navigator is a mobile application for Android devices. To login into the app, users must first fill out a form to join FBLA. Once in the app, users can view current events, competitive events, community service opportunities and fundraisers in the calendar or on the event pages. From both locations there are also options to sign up for all events, including



The Terms of Service Page

This page contains the terms of service of FBLA Navigator. Users can scroll down to view the full terms.



The screenshot shows a mobile application interface. At the top, there is a dark blue header bar with white text. From left to right, it displays the time (12:12), signal strength, battery level, a gear icon, the text "About FBLA Navigator", and a blue circular icon with three white dots. Below the header, the main content area has a white background. It features a section titled "Terms of Use" in bold black text. Underneath this, there is a sub-section titled "TERMS OF USE" in bold black text. A timestamp "Last updated November 26, 2019" is displayed. The next section is titled "AGREEMENT TO TERMS" in bold black text. A detailed legal text follows, describing the legally binding agreement between the user and FBLA Navigator LLC. At the bottom of the content area, there is a blue footer bar with white text containing links: "About", "Terms of Use", and "Privacy Policy". Below this footer is a black navigation bar with three white icons: a triangle pointing left, a circle, and a square.

Terms of Use

TERMS OF USE

Last updated November 26, 2019

AGREEMENT TO TERMS

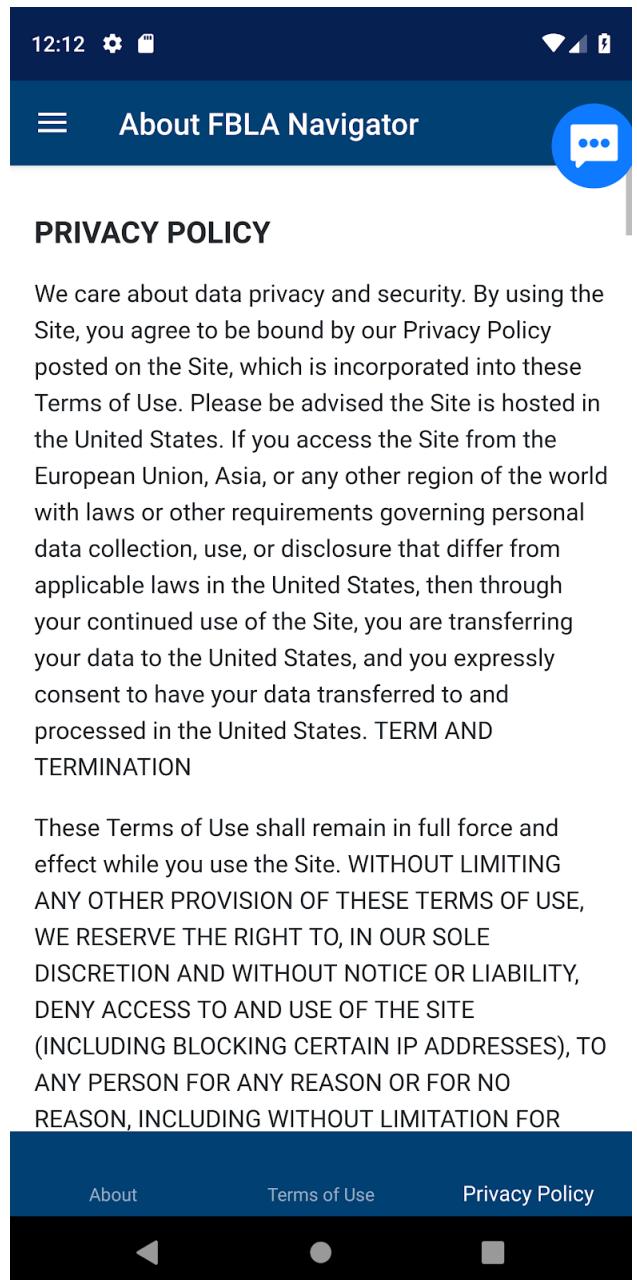
These Terms of Use constitute a legally binding agreement made between you, whether personally or on behalf of an entity ("you") and FBLA Navigator LLC (' Company ', " we ", " us ", or " our "), concerning your access to and use of the <http://fblamanager.me/> website as well as any other media form, media channel, mobile website or mobile application related, linked, or otherwise connected thereto (collectively, the "Site"). You agree that by accessing the Site, you have read, understood, and agreed to be bound by all of these Terms of Use. IF YOU DO NOT AGREE WITH ALL OF THESE TERMS OF USE, THEN YOU ARE EXPRESSLY PROHIBITED FROM USING THE SITE AND YOU MUST DISCONTINUE USE IMMEDIATELY.

Supplemental terms and conditions or documents that may be posted on the Site from time to time are

About Terms of Use Privacy Policy

The Privacy Policy Page

This page contains the privacy policy of FBLA Navigator. Users can scroll down to view the full privacy policy.



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About FBLA Navigator

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PRIVACY POLICY

We care about data privacy and security. By using the Site, you agree to be bound by our Privacy Policy posted on the Site, which is incorporated into these Terms of Use. Please be advised the Site is hosted in the United States. If you access the Site from the European Union, Asia, or any other region of the world with laws or other requirements governing personal data collection, use, or disclosure that differ from applicable laws in the United States, then through your continued use of the Site, you are transferring your data to the United States, and you expressly consent to have your data transferred to and processed in the United States. TERM AND TERMINATION

These Terms of Use shall remain in full force and effect while you use the Site. WITHOUT LIMITING ANY OTHER PROVISION OF THESE TERMS OF USE, WE RESERVE THE RIGHT TO, IN OUR SOLE DISCRETION AND WITHOUT NOTICE OR LIABILITY, DENY ACCESS TO AND USE OF THE SITE (INCLUDING BLOCKING CERTAIN IP ADDRESSES), TO ANY PERSON FOR ANY REASON OR FOR NO REASON, INCLUDING WITHOUT LIMITATION FOR

About Terms of Use Privacy Policy

App Logo



Life is like a sea that each of us must navigate. Our logo reflects our desire to help users navigate life by giving them an app that enables them to effectively learn about and communicate with their club. FBLA prepares its members for life, and we wish to help guide members through their FBLA experience.

Resources Used

Menu Icons - Icons 8 (icons8.com/)

Background Image - Pexels (pexels.com/)

National Officer Photos - FBLA PBL (fbla-pbl.org/fbla/officers/)

State Officer Photos - FBLA PA Instagram
(instagram.com/pennsylvaniafbla/?hl=en)

Software and Services Used

GitHub - <https://github.com/>

Github is an online source hosting service based around the Git version control system. We utilized Github to store source code revisions during this project.

ZenHub - <https://zenhub.com/>

ZenHub was used to create a product backlog, set goals and assign tasks to assure that we met the deadline and that all team members knew their responsibilities.

GitKraken - <https://www.gitkraken.com/>

Gitkraken was utilized to manage code revisions, resolve merge conflicts, and test experimental branch features.

Instabug - <https://instabug.com/>

We utilize Instabug to provide comprehensive bug reporting and in-app feedback from our users during beta testing. Instabug automatically attaches steps to reproduce the bug, network request logs and view hierarchy inspections with each bug report. It also allows users to record videos demonstrating their problem.

Microsoft Visual Studio 2019

IDE for developing Xamarin.Forms applications in C#

Balsamiq - <https://balsamiq.com/>

Balsamiq was used to create wireframes and UI mockups so that we had a reference to work off of.

FBLA Navigator Documentation

Additional Software Components

Newtonsoft.Json by James Newton-King -
<https://www.nuget.org/packages/Newtonsoft.Json/>

Json.NET is a popular high-performance JSON framework for .NET

Xamarin

Xamarin.Essentials by Microsoft - <https://www.nuget.org/packages/Xamarin.Essentials/>

Xamarin.Essentials: a kit of essential API's for your apps

Xamarin.Forms by Microsoft - <https://www.nuget.org/packages/Xamarin.Forms/>

Build native UIs for iOS, Android, UWP, macOS, Tizen and many more from a single, shared C# codebase

Xamarin.FFImageLoading by Daniel Luberda, Fabien Molinet -
<https://www.nuget.org/packages/Xamarin.FFImageLoading/>

Xamarin Library to load images quickly and easily

Syncfusion

Syncfusion.Xamarin.Core by Syncfusion Inc. -
<https://www.nuget.org/packages/Syncfusion.Xamarin.Core/>

This package contains common classes and interfaces that are used in other Syncfusion Xamarin UI controls

Syncfusion.Xamarin.SfBusyIndicator by Syncfusion Inc. -
<https://www.nuget.org/packages/Syncfusion.Xamarin.SfBusyIndicator/>

The Syncfusion Busy Indicator for Xamarin.Forms control provides over 10 built-in animations that can be displayed within the application. It is used to indicate busy status during app loading, data processing, and more.

Syncfusion.Xamarin.SfSchedule by Syncfusion Inc. -

<https://www.nuget.org/packages/Syncfusion.Xamarin.SfSchedule/>

Syncfusion Schedule for Xamarin.Forms is used to schedule and manage appointments through an intuitive user interface to efficiently plan and manage events or appointments.

Syncfusion.Xamarin.SfListView by Syncfusion Inc. -

<https://www.nuget.org/packages/Syncfusion.Xamarin.SfListView/>

Syncfusion ListView for Xamarin.Forms is a feature rich list control that renders a set of data items with views or custom templates. It has many features like grouping, sorting, filtering, paging, swiping, multiple selection, dragging and dropping, and layout types. This control has also been optimized to work with large amounts of data.

Syncfusion.Xamarin.SfComboBox by Syncfusion Inc. -

<https://www.nuget.org/packages/Syncfusion.Xamarin.SfComboBox/>

The Syncfusion Combo Box for Xamarin.Forms is used to select an item by typing a value or selecting a value from the list.

References

"FBLA Competitive Events." *FBLA-PBL*. fbla-pbl.org/fbla/competitive-events/.

"FBLA National Officers." *FBLA-PBL*. fbla-pbl.org/fbla/officers/.

"Easton, PA Fbla Study Set." *Quizlet*.

quizlet.com/447443583/easton-pa-fbla-study-set-flash-cards/.

Dearie, KJ, and Zachary Paruch. "Mobile App Terms & Conditions Template & Writing Guide." *Termly*, 28 Nov. 2018,
termly.io/resources/templates/mobile-app-terms-and-conditions-template/.