



# FROSTBYTE

## User Guide

Tyler Seth Duggan

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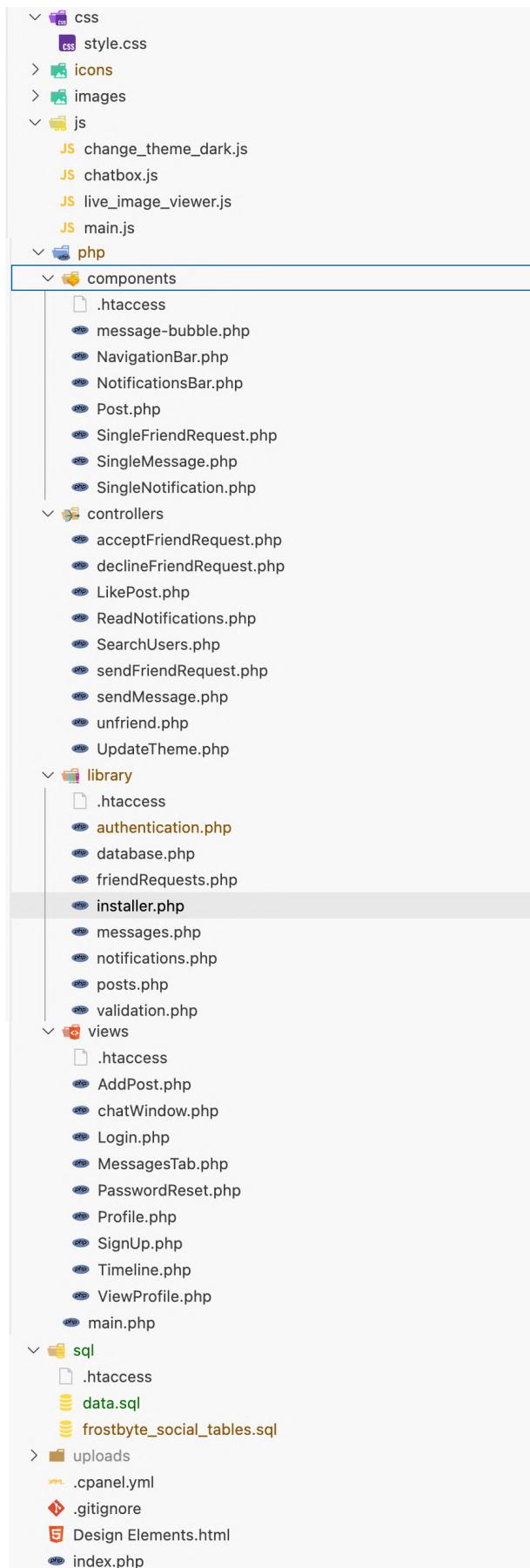
# Installation

## Part 1: Files & Folders

To ensure FrostByte runs correctly, the project files must remain in the folder structure shown above. The system has been organized into clear directories for ease of use and maintainability:

- **css/** contains all custom styling (`style.css`).
- **icons/** and **images/** store visual assets used throughout the platform.
- **js/** holds the JavaScript files that handle interactivity (theme switching, live image previews, chat, etc.).
- **php/** is divided into **components/** (reusable UI parts), **controllers/** (backend request handlers), **library/** (core functions like authentication, database connection, validation), and **views/** (the main user-facing pages).
- **sql/** contains the SQL scripts (`frostbyte_social_tables.sql` and `data.sql`) for creating the database schema and loading test data.
- **uploads/** is where user-uploaded images (profile pictures and post images) are stored.
- **At the root level**, files like `index.php` act as the main entry point, while `.htaccess files` add security and routing rules.

This folder setup mirrors standard best practices for PHP projects, ensuring the system is easy to navigate, extend, and test.

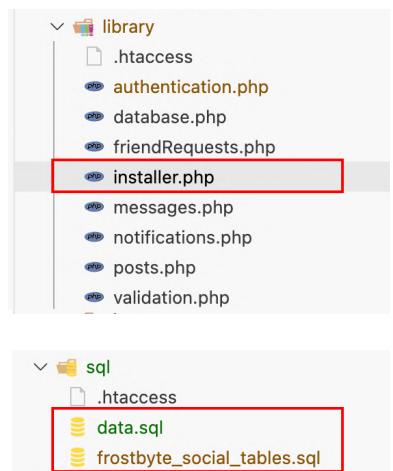


## Part 2: Installing the Database

### Automatic Install:

The system includes a **built-in installer script** (installer.php) that **automatically sets up** the required database **tables and loads the initial data**. This script is designed to check whether the tables already exist before creating them, preventing duplication or errors.

Simply ensure your server (MAMP, XAMPP, or any other PHP/MySQL server) is running, copy the project files into the server's root directory, and open the index.php file in your browser (e.g., <http://localhost/FrostByte/index.php>) to launch the site, and everything will be done in the background via the installer.php script.

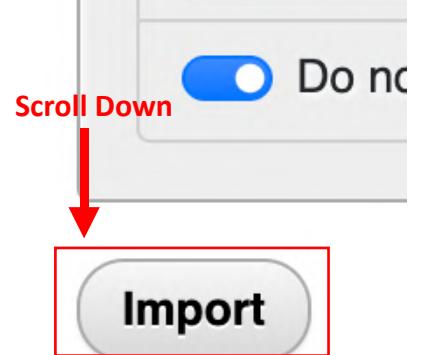


If you would like to **start with a clean installation**, you can simply **delete the data.sql file** inside the **sql/** directory. The application will still run, but it will initialize without any pre-existing users, posts, or messages, effectively giving you a **blank system to begin testing from scratch**.

### Manual Install:

If you encounter any issues with the automatic installation process, you can also **manually install the database**. Simply follow these steps below:

1. Navigate to your phpMyAdmin, and select the databases tab, then select the **import tab**.



2. Select choose file and select the **frostbyte\_social\_tables.sql**, after it is selected, scroll down and click the button that says "import". The tables should then be created. (see next page)

The screenshot shows the phpMyAdmin interface for the 'localhost' server. The left sidebar lists databases: 'New', 'frostbyte\_social' (highlighted with a red box), 'information\_schema', 'language\_school', 'myfirstdatabase', and 'mysql'. The main area displays a success message: 'Import has been successfully finished, 18 queries executed. (frostbyte\_social\_tables.sql)'. Below it, another message says 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0012 seconds.)' with the SQL command: 'CREATE DATABASE IF NOT EXISTS frostbyte\_social CHARACTER SET utf8mb4 COLLATE utf8mb4\_unicode\_ci'. A warning message at the bottom states 'Error: #1046 No database selected'.

**3.** You should get a confirmation message that says all 18 queries were executed, and you should see the new database appear on the left hand side

This screenshot shows the phpMyAdmin interface for the 'frostbyte\_social' database. The left sidebar shows the same list of databases as the previous screenshot. The 'frostbyte\_social' database is selected and highlighted with a red box. The main area has a red arrow pointing to the 'Import' tab in the top navigation bar, which is also highlighted with a red box. Below the navigation bar, there is a search field labeled 'Containing the word:' and a table listing 8 tables: conversations, friends, friend\_requests, messages, notifications, posts, post\_likes, and users. Each table row includes actions like Browse, Structure, Search, Insert, Empty, Drop, and a checkbox for selection. A red box highlights the entire table area.

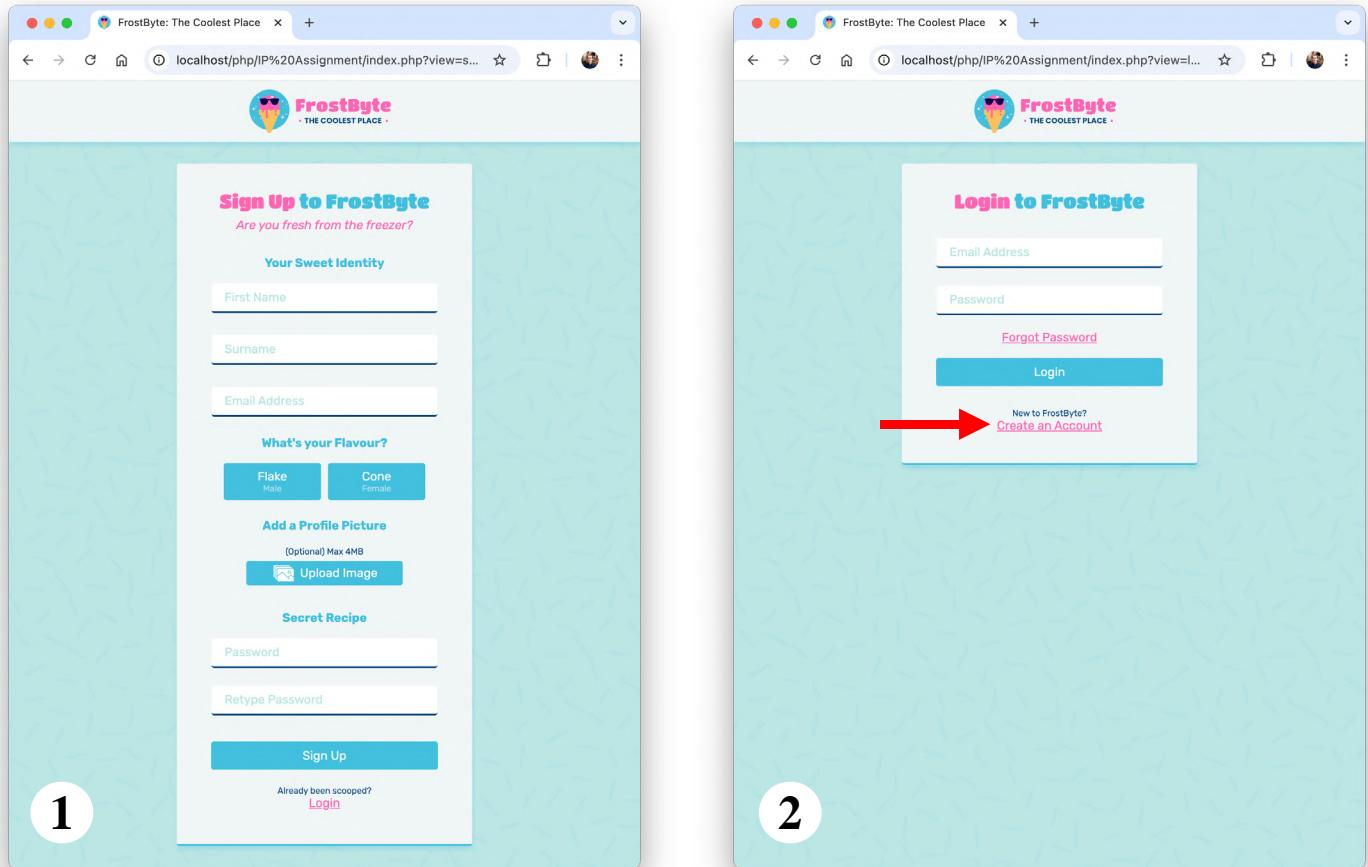
**4.** When selecting 'frostbyte\_social', you will see the 8 tables have now been created. From here you will need to select "import" again, if you wish to install the pre-made dataset.

This screenshot shows the 'Import' page for the 'frostbyte\_social' database. The top navigation bar includes tabs for Structure, SQL, Search, Query, Export, Import (highlighted with a red box), Operations, Privileges, Routines, and E. The main area starts with the message 'Importing into the database "frostbyte\_social"' followed by a note about file formats. It features a 'File to import:' input field with a red box around it, a 'Browse your computer:' button, and a 'Choose file' button. A note at the bottom says 'You may also drag and drop a file on any page.' To the right, there is a large red arrow pointing down to the 'Import' button, which is also highlighted with a red box. Above the 'Import' button, a red box highlights the 'Do not validate file' toggle switch.

**5.** Select choose file and select the **data.sql**, after it is selected, scroll down and click the button that says "import". The data should then be inserted into the database, you are now free to play around in FrostByte, the coolest place!

# The Sign Up to FrostByte Process

Follow these steps to **create a new FrostByte account**. If you already have an account, you can skip to the Login section.



When you first access the index page of the website, you will be taken to a sign-up page (as seen in image 1). If you instead see a login page (as seen in image 2), you can access the sign-up page via the '**Create an Account**' link, (indicated by the red arrow in Image 2).

When creating an account, **a few rules must be followed** to ensure your details are valid:

- All fields are required and cannot be left blank.
- Your first name and surname may only contain letters (no numbers or symbols).
- The email address must be unique (it cannot already be registered by another user), and must be a valid address in the correct email format (name@domain.com).
- The password and confirm password fields must match.
- You must select a gender option.

**Adding a profile picture is optional.** If you choose not to upload one, a default placeholder image will be used instead. Once all your information has been entered, click the 'Sign Up' button (shown in Image 1) to submit your details.

The system will then validate your input against the predefined rules. **If any errors are detected**, the form will not be submitted. Instead, you'll receive helpful hints and error messages (as shown on the next page) to guide you in correcting the issues before trying again.

**Sign Up to FrostByte**  
Are you fresh from the freezer?

Your Sweet Identity  
Required!

First Name

Surname  
Required!

Please enter a valid email address  
Email Address

What's your Flavour?  
Please select an option

Flake Male      Cone Female

Add a Profile Picture  
(Optional) Max 4MB

Upload Image

Secret Recipe  
Fields cannot be left empty

Password

Retype Password

Sign Up

Already been scooped? [Login](#)

3

**Sign Up to FrostByte**  
Are you fresh from the freezer?

Your Sweet Identity  
CANNOT contain numbers

Arnold

CANNOT contain numbers

Schwarzenegger95

Please enter a valid email address  
arnold.com

What's your Flavour?

Flake Male      Cone Female

Add a Profile Picture  
(Optional) Max 4MB

Upload Image

Secret Recipe  
Passwords do not match

.....

.....

Sign Up

Already been scooped? [Login](#)

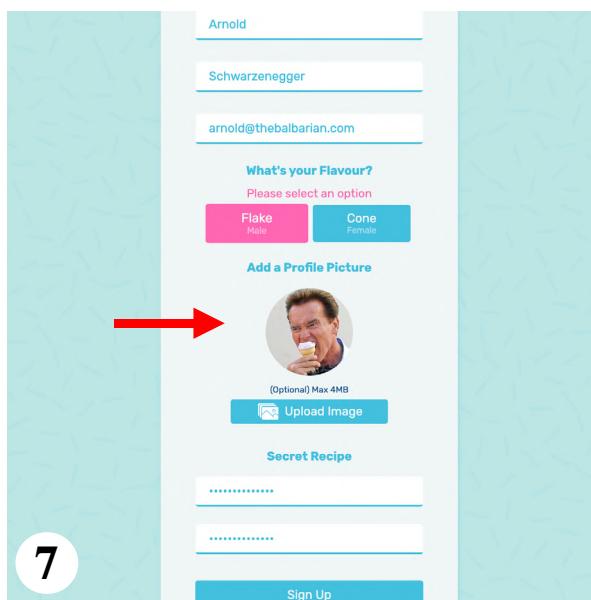
4

Email is already in use by another user  
**tylersduggan@gmail.com**

5

**Add a Profile Picture**  
File size is too large. Max 4MB  
(Optional) Max 4MB

6



7

If any issues are found during sign-up, the system will display clear error messages to guide you.

For example, leaving fields blank will trigger a reminder to complete them (Image 3), while entering invalid details such as numbers in your name, an incorrectly formatted email, or mismatched passwords will also be flagged (Image 4).

If the email address you've entered is already registered, you'll be prompted to use a different one (Image 5).

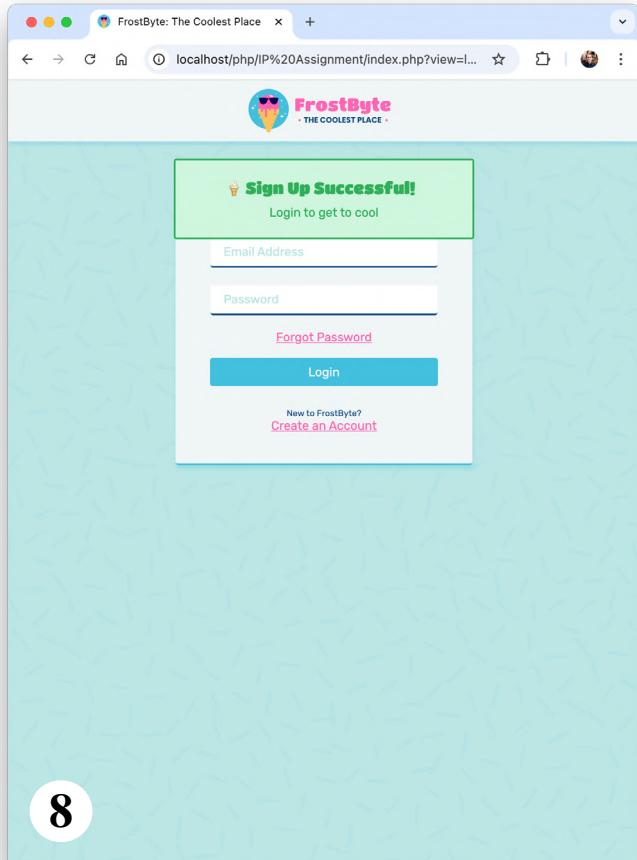
Uploading a profile picture larger than 4MB will result in an error message (Image 6).

When an image is uploaded successfully, a live preview will appear so you can see how your profile picture will look on the site (Image 7).

Once successfully signed up, you will be sent to the login page.

# The Login to FrostByte Process

Follow these steps to **login to their FrostByte account**



**Login to FrostByte**

User does not exist...  
makeMeHappy@gmaul.com  
.....

[Forgot Password](#)

**Login**

New to FrostByte?  
[Create an Account](#)

**9**

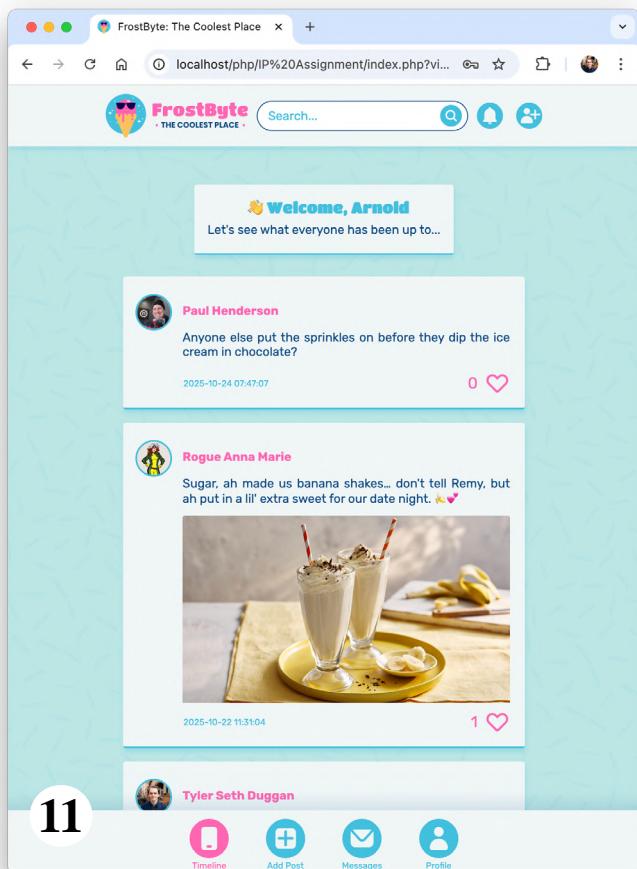
Wrong email/password combination  
arnold@thebalbarian.com  
....

[Forgot Password](#)

**Login**

New to FrostByte?  
[Create an Account](#)

**10**



After completing the sign-up process, you'll be greeted with a friendly green confirmation message (as shown in Image 8), **letting you know your account has been created successfully**. From here, you can log in using the details you registered with.

If you try **logging into an account that doesn't exist** (Image 9), you'll receive a clear error message letting you know the user could not be found. Similarly, **if your email and password don't match** (Image 10), you'll be prompted to recheck your credentials.

Once everything is entered correctly, simply press the **Login** button to proceed, this will take you straight into the app itself and to your FrostByte timeline (Image 11). You will be greeted with a friendly welcome message and will be able to see everyone on the app's recent activity. **Note:** If the tab or browser is closed, you will need to login again

# Different Sections of FrostByte

These are **the main sections** you'll navigate in FrostByte.

**12**

The Timeline section displays a feed of posts from other users. Each post includes a profile picture, the user's name, the post content, the date it was posted, and a like count. At the bottom, there is a navigation bar with icons for Timeline, Add Post, Messages, and Profile.

**13**

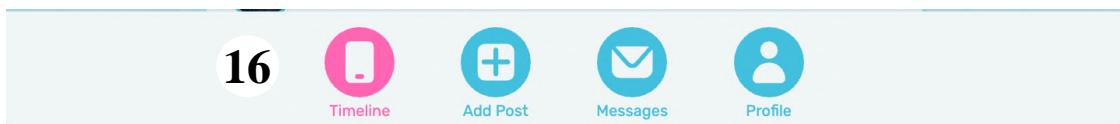
The Add Post section allows users to create a new post. It features a text input field with placeholder text, a file upload button for images (with a 4MB limit), and a preview area showing a photo of two people with milkshakes. A pink "Add Post" button is at the bottom.

**14**

The Messages section shows a list of messages from other users. Each message includes a profile picture, the user's name, their email address, and the message content. A "Message" button is next to each message. At the bottom, there is a navigation bar with icons for Timeline, Add Post, Messages, and Profile.

**15**

The User Profile section displays the profile of a user named Arnold Schwarzenegger. It shows a profile picture, the user's name, gender (Male), and email address. There are buttons for Edit Profile and Logout. Below the profile, a message from another user reads "Hey Arnold, thank you I loved your movie ...". At the bottom, there is a message "No Posts Yet..." and a navigation bar with icons for Timeline, Add Post, Messages, and Profile.



The **navigation bar at the bottom of the page** (image 16) gives you quick access to the four main areas of FrostByte: Timeline, Add Post, Messages, and Profile.

**The Timeline tab** (image 12) is the heart of FrostByte. This is where you'll see everyone's posts displayed in reverse chronological order, meaning the newest content always appears at the top. Each post includes a timestamp showing when it was created, so you can easily keep track of the activity. Posts can contain just text, or they can also include an image, adding a picture is entirely optional. Every post features a like button and a like counter, which allows you to engage with other users' content (we'll cover likes in more detail later).

**The Add Post tab** (image 13) is where you can share your own thoughts, updates, or images with the community. This is your space to create content, and we'll walk through the step-by-step process of posting later in this guide.

**The Messages tab** (image 14) acts as your inbox. Here you can connect directly with other FrostByte users. You can either start a conversation by searching for someone or view messages that you've already received. It's the place to manage your private interactions outside of the timeline.

Finally, the **Profile tab** (image 15) is your personal hub. This is where you can view and edit your own profile information, update your details, and make changes to your settings and preferences. It also shows your recent activity, giving you a clear view of what you've been sharing and engaging with on the platform.

To make navigation simple, FrostByte highlights the page you're currently on by colouring its icon **pink**. This way, you can always tell exactly which page you are on.

# The Timeline

This is where you'll see everyone's posts

The screenshot shows the FrostByte timeline interface. At the top, there's a pink header with the word "Before". Below it is a search bar and a navigation bar with icons for search, notifications, and profile. The main content area has a teal background with a white card for each post. The first post is from "Paul Henderson" with the caption "Anyone else put the sprinkles on before they dip the ice cream in chocolate?" and a timestamp "2025-10-24 07:47:07". A red arrow points to the "0" next to a heart icon. The second post is from "Rogue Anna Marie" with the caption "Sugar, ah made us banana shakes... don't tell Remy, but ah put in a lil' extra sweet for our date night. 🍩" and a timestamp "2025-10-22 11:31:04". A red arrow points to the "1" next to a heart icon. The third post is from "Tyler Seth Duggan" with the caption "This looks way too good! I had to share 😊" and a timestamp "2025-10-22 11:31:04". Below the posts are four circular icons: Timeline (pink), Add Post (blue), Messages (teal), and Profile (light blue). The number "17" is in a circle at the bottom left.

The screenshot shows the same timeline interface after a change. The pink header now says "After". The first two posts remain the same as in Image 17. The third post from "Tyler Seth Duggan" has been removed. The bottom navigation bar is identical to Image 17. The number "18" is in a circle at the bottom left.

**The Timeline** is where you can scroll through and see all the posts **created by other users**, with the newest content always appearing at the top thanks to its **reverse chronological order**. Each post includes a **timestamp** showing when it was made, along with the **poster's name, profile picture, and caption**.

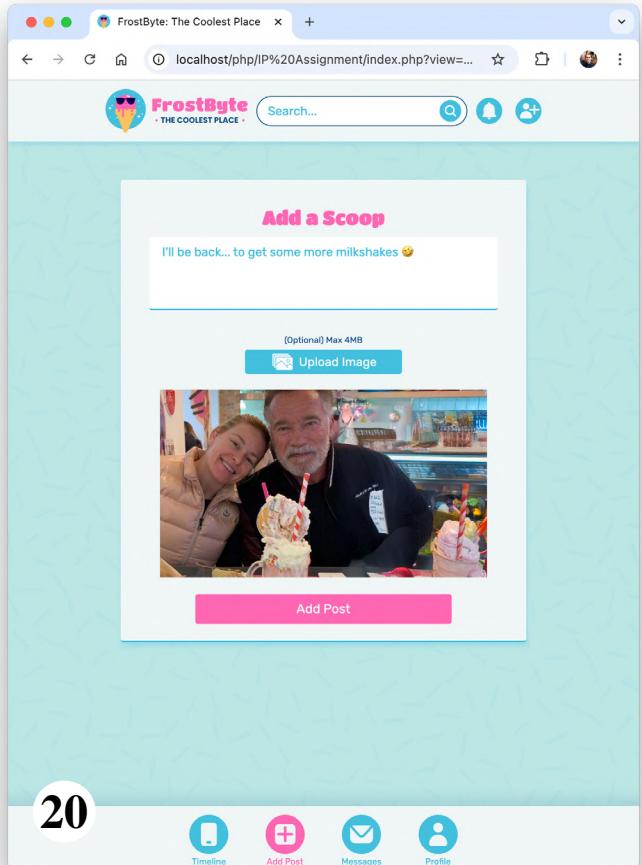
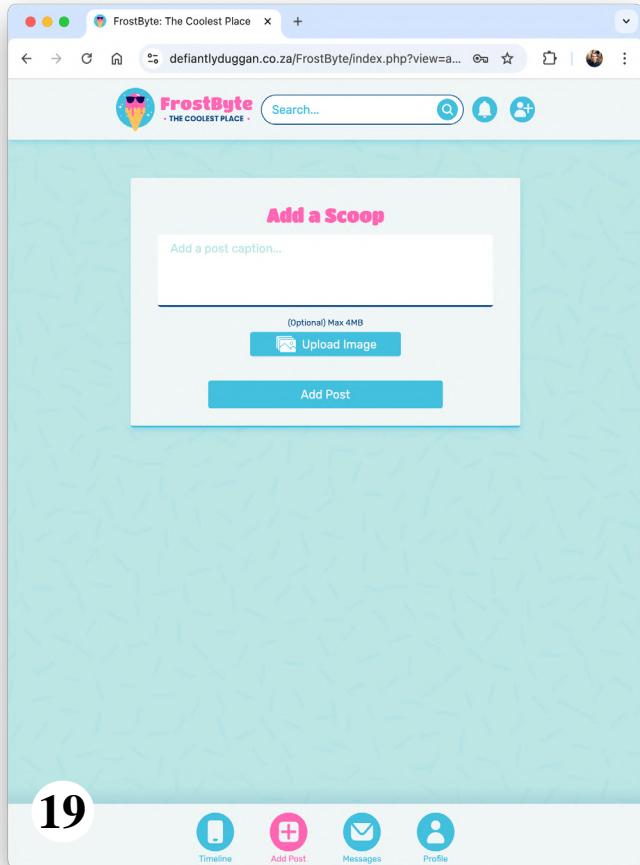
Both the name and profile picture of a poster (circled in red in Image 17) are clickable, this allows you to jump directly to their profile page (covered later in this guide).

Every post also includes a **like button and counter** (indicated by the red arrows). Clicking the heart button will add a like to that post, send a notification to the original poster letting them know you liked it, and increase the counter by 1. If you click the heart again after it's filled in (as shown in Image 18), it will remove your like, decrease the counter, and notify the user that you've unliked their post.

This interactive system makes it easy to engage with other people's content and keep track of what you and others enjoy.

## Add Post

This is where you'll be able to create and [post your own content](#) to FrostByte



The Add Post page (shown in Images 19 and 20) is where you can share your own content with the FrostByte community. Each post must include a caption, and you also have the option to add an image if you'd like.

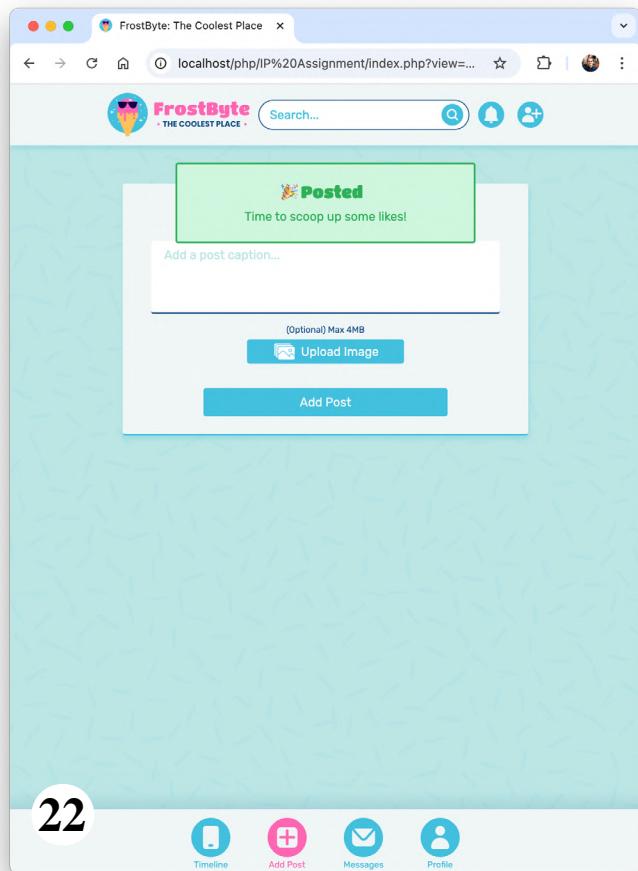
There are a few rules to keep in mind when creating a post:

- **Caption length:** Your caption must be 280 characters or fewer. A character counter is displayed above the box to help you stay within the limit.
  - **Image file type:** If you choose to upload an image, it must be in JPG or PNG format.
  - **Image size:** Uploaded images must be smaller than 4MB.

If no image is uploaded, the post will still appear on the timeline with your caption only. Once everything is ready, simply click the **Add Post button to publish your content to the timeline**.

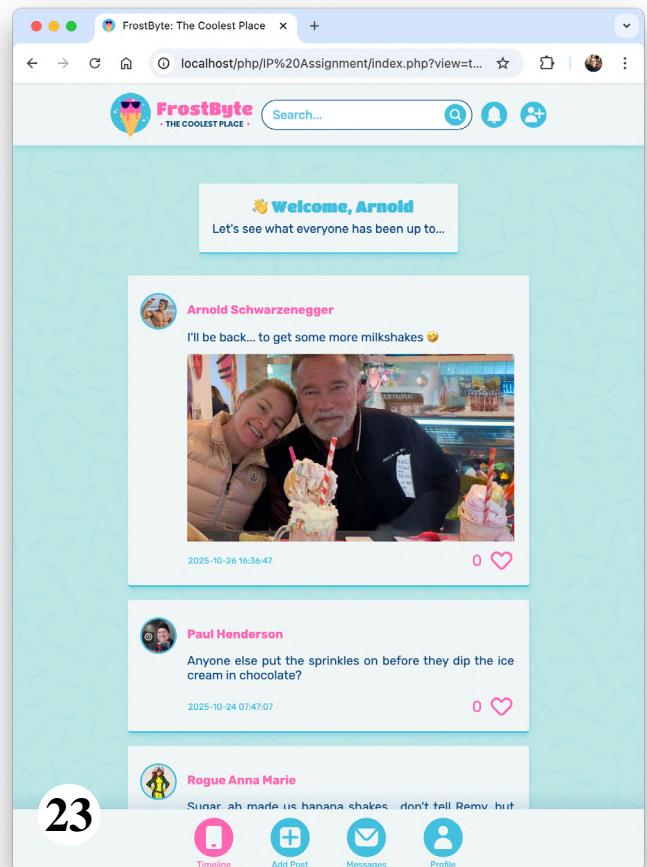


Image 21 shows what happens when the character limit for a post is exceeded. The system displays how many characters you've gone over the 280-character maximum. If you attempt to upload an image that doesn't meet the rules (such as being too large or the wrong file type), the error messages work the same way as during the sign-up process for adding a profile picture.



22

Timeline Add Post Messages Profile



23

Timeline Add Post Messages Profile

When a post is **successfully submitted**, a green confirmation message will appear (as shown in Image 22). After this, your **post will immediately be visible on the timeline** (see Image 23), alongside posts from other users. Each post is displayed with your caption, optional image, and timestamp so you can keep track of when it was created.

In addition to appearing on the timeline, **all of your posts are also collected on your profile page**, making it easy to view everything you've shared in one place.

# Messaging & Conversations

Start a conversation and keep it going

Screenshot of the FrostByte messaging interface. The top navigation bar includes the logo, search bar, and notification icons. A large white box labeled "Messages" contains a search bar with a placeholder "Search..." and a magnifying glass icon. Below the search bar, the text "No conversations yet..." is displayed, followed by the instruction "Find someone and say 'hello!'" with a small smiley face icon. At the bottom of the messages box, there is a red arrow pointing to the search bar.

24

Timeline Add Post Messages Profile

Screenshot of the FrostByte messaging interface. The search bar now contains the word "rogue". A red arrow points to the search results, which show a contact named "Rogue Anna Marie" with the email "rogue@xmen-mail.com".

25

Timeline Add Post Messages Profile

Screenshot of the FrostByte messaging interface. The contact "Rogue Anna Marie" is selected. The message input field at the bottom contains the text "Hey Rogue!". A red arrow points to the send button icon (a blue envelope icon) next to the message text.

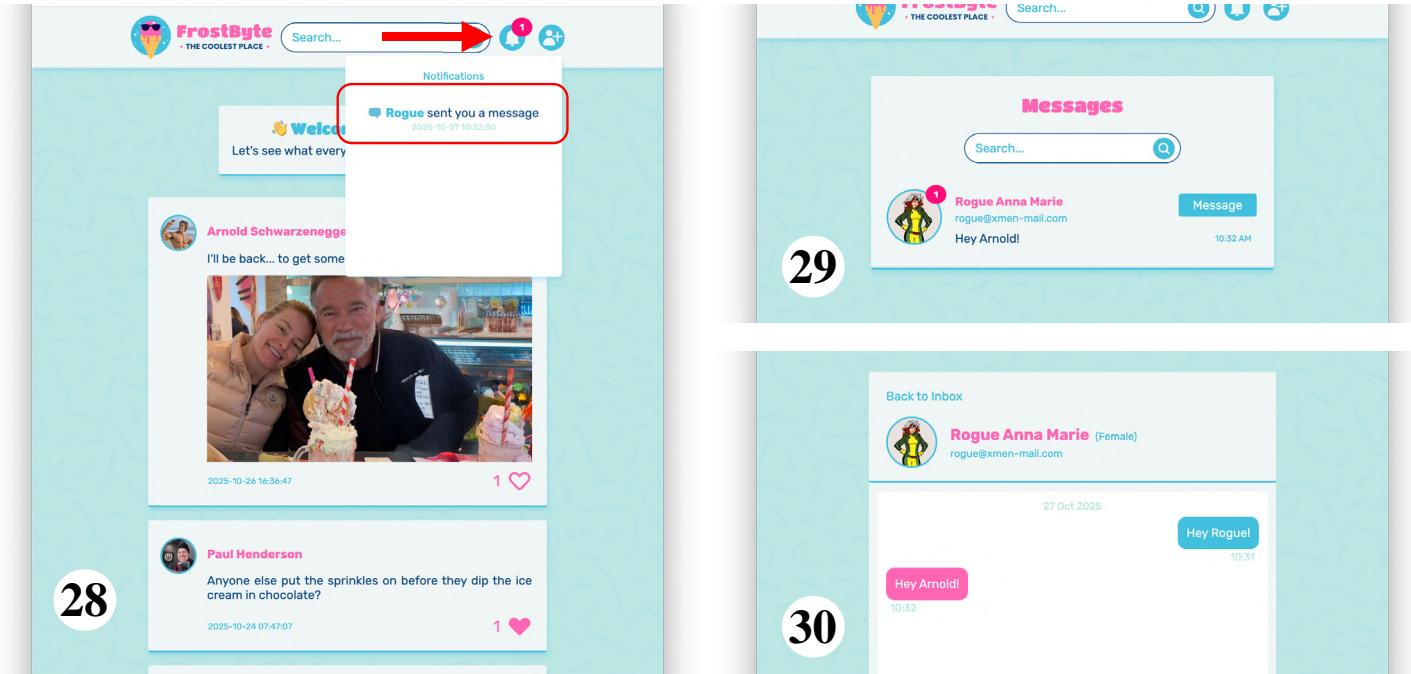
26

Timeline Add Post Messages Profile

Screenshot of the FrostByte messaging interface. The contact "Rogue Anna Marie" is selected. A message from her is shown with the timestamp "27 Oct 2025" and the text "Hey Roguel!". Below the message input field, there is a placeholder "Type message to Rogue..." and a send button icon.

27

Timeline Add Post Messages Profile



### Image 24 — Find someone to chat with

When you first open Messages, you won't have any conversations yet. Use the search bar to look up a user by name or email. Press enter or the search icon to see results.

### Image 25 — Open the conversation

Click the person in the results to open a chat with them.

Note: the conversation isn't saved to your inbox until you send the first message (this prevents empty threads from cluttering your list).

### Image 26 — Send your first message

Type in the message box and press Enter or click the send icon. You can keep typing for multi-line messages; sending is instant.

### Image 27 — Read the thread layout

Your messages appear on the right in blue with a time stamp (HH:MM).

Messages are grouped by day; when a new day starts you'll see a date header (e.g., "27 Oct 2025") separating the history. Only the time shows under each bubble; the date appears as a section header.

### Image 28 — Get notified

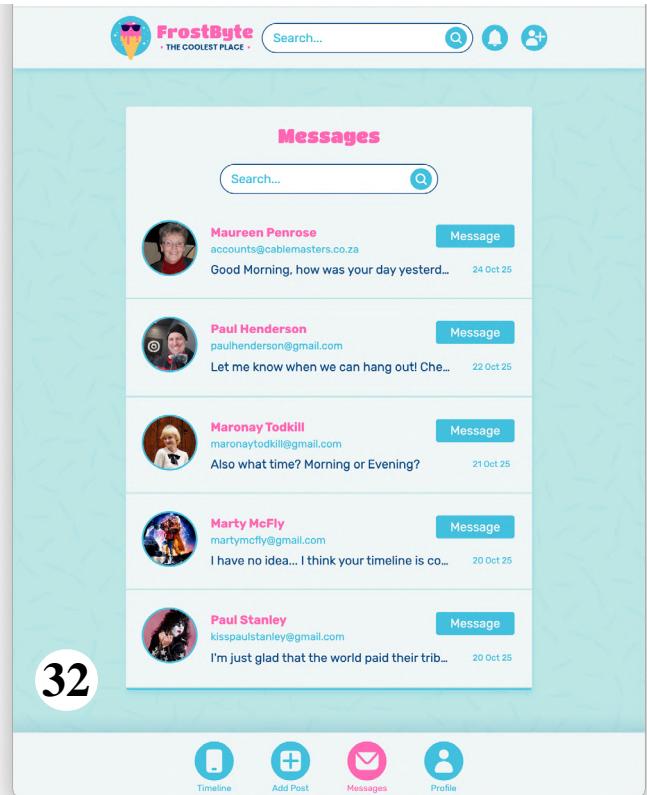
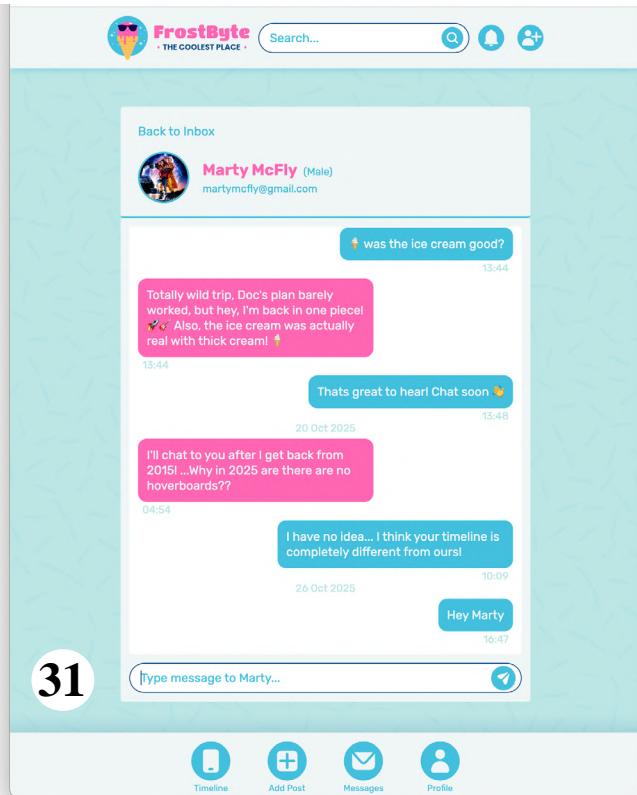
When someone replies, a notification appears on the bell. Head to Messages to browse all conversations.

### Image 29 — Inbox at a glance

Your inbox lists conversations in reverse-chronological order (newest on top). Each row shows the latest message snippet and a time stamp so you can quickly decide where to jump back in.

### Image 30 — Replies are easy to spot

Incoming messages appear on the left in pink, outgoing messages are blue, so it's always clear who said what.



### Image 31 — (Date separators example)

This example shows how conversations are split by day with a subtle date header between message groups, useful when a chat spans multiple days.

### Image 32 — (Many conversations example)

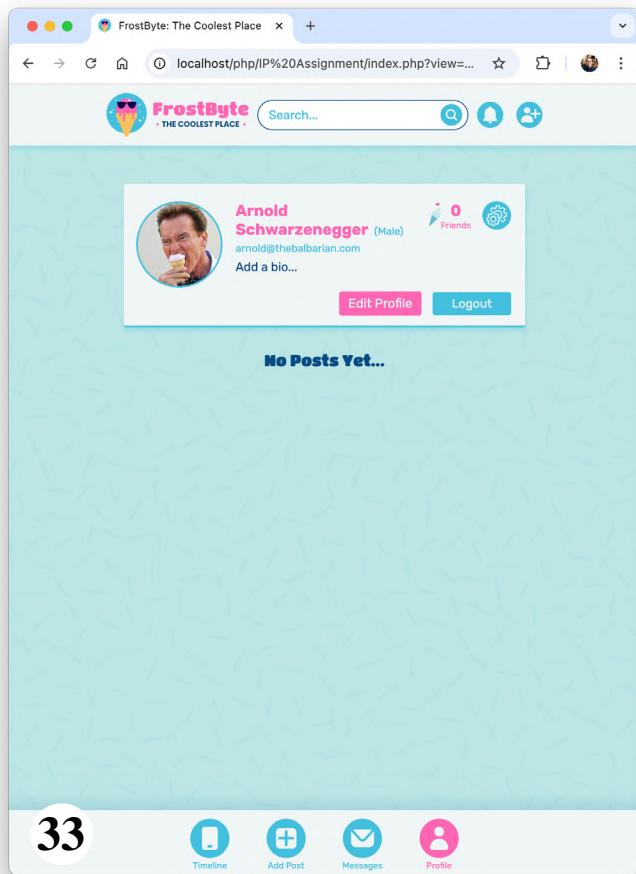
Here you'll see the inbox with multiple active threads, searchable by name/email, and still sorted newest-first so you never miss the latest reply. If the latest message in the conversation are older than a day, then the date will be displayed in the time stamp.

## Tips

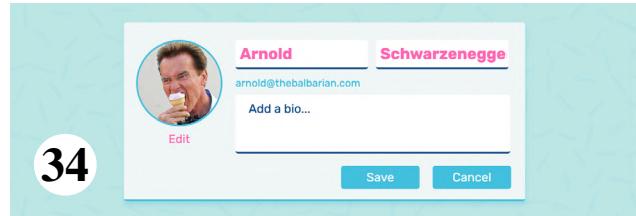
- You can search from the inbox at any time to find a person or filter down conversations.
- If you open a user from search but close the window without sending, the thread won't appear in the inbox, just re-open and send a message when you're ready.

# Your User Profile

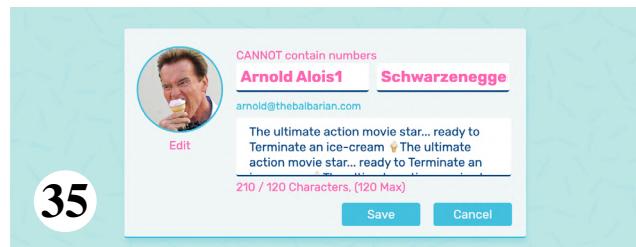
Update your information, bio, and see all of your own posts



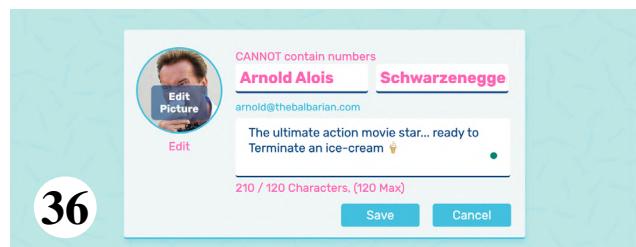
33



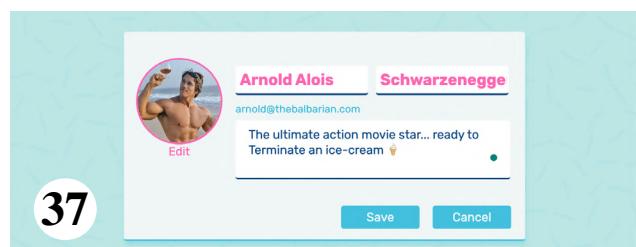
34



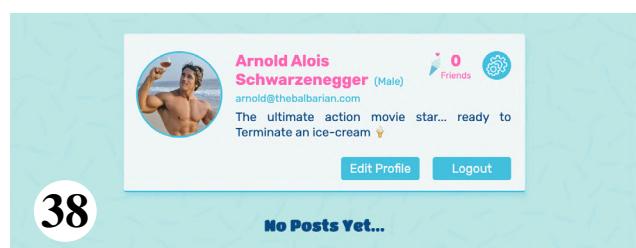
35



36



37



38

When you first open your profile page (Image 33), you'll see your account details at the top, with **options to edit your profile or log out**. The logout button will safely end your session and return you to the login screen. If you haven't created any posts yet, the lower part of the page will appear empty with a placeholder message.

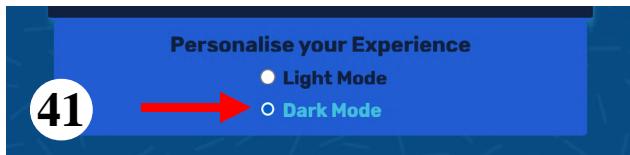
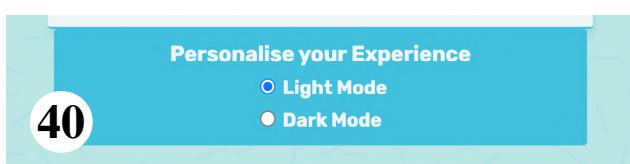
Clicking **Edit Profile** allows you to **update your information** (Image 34). Your name fields, email, and bio will become **editable inputs**. Keep in mind that **names cannot contain numbers or symbols**, and your **bio is limited to 120 characters** maximum (Image 35).

You can also **update your profile picture** by hovering over your current image (Image 36). Once the edit option appears, you can upload a new picture. The same upload rules apply as elsewhere on the site: files must be either .jpg or .png, and under 4MB in size.

After making your changes, **click Save to confirm** (Image 38). All **updates will be stored in your profile**, and your information, bio, and picture will refresh immediately across the site.

# User Settings / Preferences

Save your preferences via the settings icon



On your **profile page** (Image 39), you'll notice a **small cogwheel icon in the top right corner** of the profile card. When you hover over the icon it will turn pink, indicating it can be clicked. Selecting this icon opens a **drop-down menu** (Image 40), where you can personalize your FrostByte experience by choosing between **Light Mode and Dark Mode**.

Switching to **Dark Mode** (Image 41) applies a **darker color preset across the whole site**, making the interface easier on the eyes. You can return to Light Mode at any time by selecting it again from the same menu (Image 40).

Importantly, this theme preference is applied across all areas of the app. For example, Image 43 shows the Messages tab in dark mode, and Image 44 shows the Add Post screen, both carrying the same theme.

**Your theme choice is also saved to the database.** This means that once you log out and log back in, your preference (Light or Dark Mode) will still be applied automatically, giving you a consistent experience every time you use FrostByte.

FrostByte: The Coolest Place

Arnold Schwarzenegger (Male)  
arnold@thebalbarian.com  
The ultimate action movie star... ready to Terminate an ice-cream 🍦

Personalise your Experience  
 Light Mode  
 Dark Mode

Arnold Schwarzenegger  
I'll be back... to get some more milkshakes 😊  
2025-10-26 16:36:47 0 ❤️

42

Timeline Add Post Messages Profile

FrostByte: The Coolest Place

Rogue Anna Marie  
rogue@xmen-mail.com  
Hey Arnold, thank you I loved your movie ... 16:40 PM

43

Messages

FrostByte: The Coolest Place

Add a Scoop

Add a post caption...

(Optional) Max 4MB

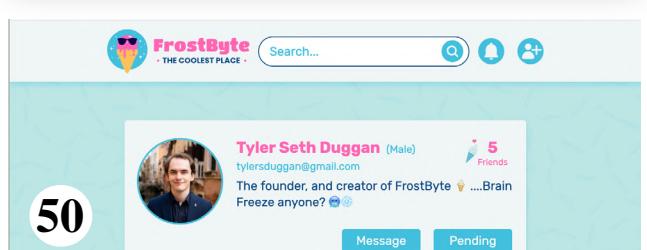
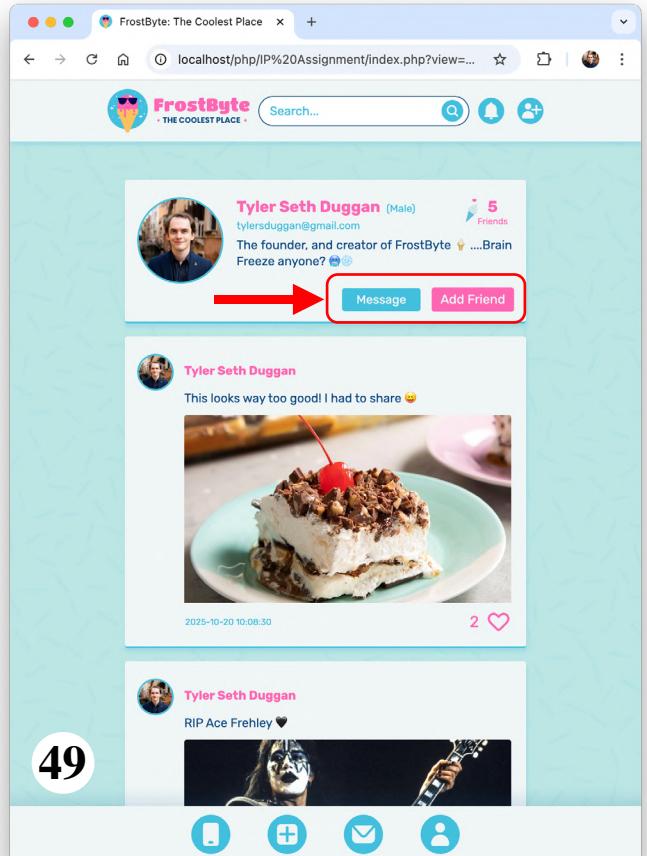
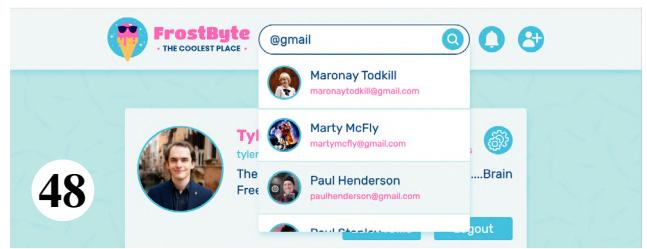
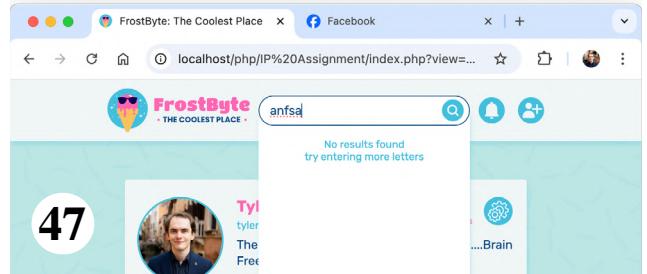
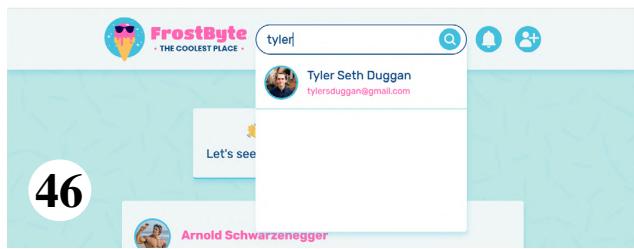
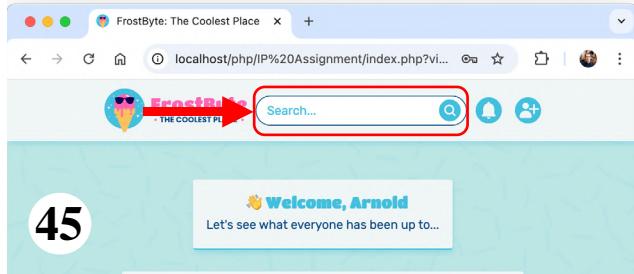
Upload Image

Add Post

44

# Search for other Users and view their Profile

Find and connect with other users in just a few clicks.



The **search feature** allows users to quickly **look up and view other profiles** on FrostByte. As shown in image 45, the search bar can be used by typing a **name or email address**. A **minimum of three characters** is required (image 47), and results are scrollable for convenience. Searches can be triggered by pressing Enter or clicking the search icon (image 46, 48).

If a user searches for their own profile, they are redirected to their full profile page instead of a preview to prevent actions like sending a friend request to themselves. When viewing **another user's profile** (image 49), the page is **limited to display-only information**: their bio, recent posts, and friend count. From here, users can either **send a message** (which links to an existing or new conversation) or **send a friend request**.

The **friend request button** highlights pink on hover, changes to “Pending” once clicked (image 50), and can be clicked again to cancel the request. Accepting or managing requests will be explained in a further section of this guide.

## Notifications & Friend Requests

Keep track of new connections and important updates

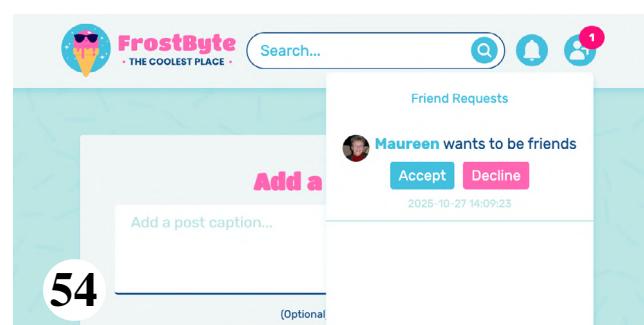
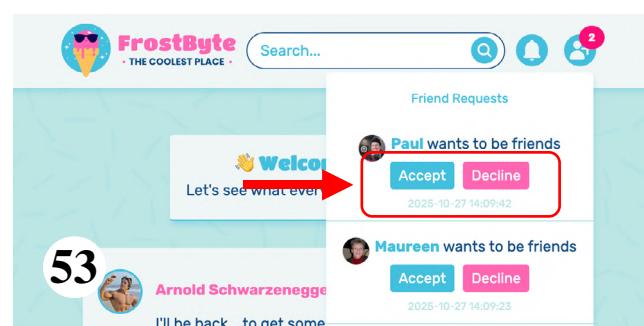
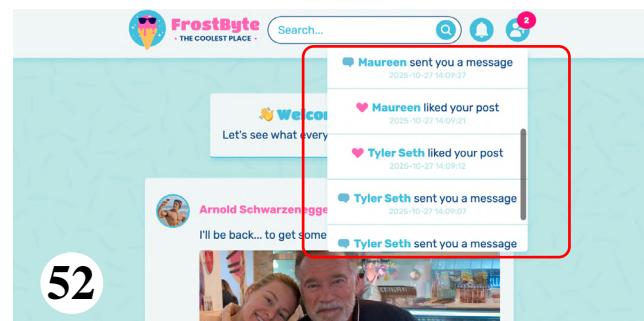
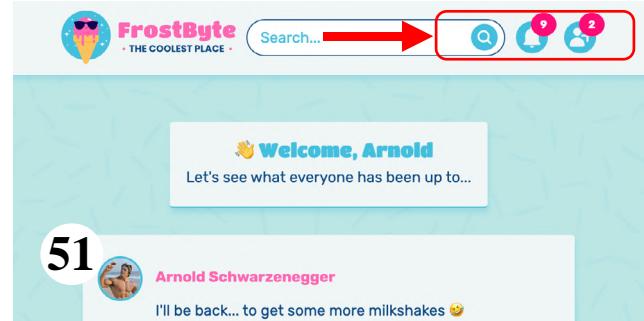
You can access both notifications and friend requests from the top navigation bar (see Image 51). Each icon shows a small dark pink counter that tells you how many new notifications or pending requests you currently have.

When you click the bell icon (Image 52), the counter will reset to zero, and a scrollable dropdown window will appear. Here, you can review all your recent notifications, such as new messages, likes, or other updates.

The process works the same way for friend requests. By clicking the friend request icon, you'll open a dropdown showing all users who have requested to connect with you (Image 53). For each request, you can either:

- **Accept** → The person becomes your friend. They'll be added to your friends list, and your Friends counter on your profile will increase by one (Image 55).
- **Decline** → The request is removed, and the counter decreases by one (Image 54). The “pending” state on their profile will reset back to an Add Friend button, so you can choose to send/receive requests again in the future.

If you accept, both you and the other user will see each other listed as friends when visiting each other's profiles (Image 55).



## Reset Your Password

Easily recover your account if you've **forgotten your login details**.

If you **can't remember your password**, simply click the '**Forgot Password**' link on the login page (Image 56). This will take you to the reset password form (Image 57), where you can enter the email linked to your account and create a new password.

The form will check that your email is in the correct format, confirm that the user exists, and ensure the new password fields match (Image 58). **If everything is valid**, your password will be securely updated, and you'll be redirected back to the login page to sign in with your new details.

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Forgot Password

Login

New to FrostByte?

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Did you have a brain-freeze?

**Reset Password**

Email linked to your account

Email Address

New Secret Recipe

Password

Retype Password

Reset Password

Remembered your password?  
[Back to Login](#)

58

Did you have a brain-freeze?

**Reset Password**

Email linked to your account

User does not exist

arnold@my.com

New Secret Recipe

Passwords do not match

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