Software Requirements Specification

for

RandoIMG

Version 1.0 approved

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January 8-9, 2022

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1. Introduction

1.1 Purpose

This SRS document is here for the purpose of providing information regarding the website "RandoIMG." This includes things like it's features, intended use, expected performance, etc.

1.2 Intended Audience and Reading Suggestions

*This document is intended for the use of individuals that are/will a part of this project like the developers, users, testers, etc. For a short overview, one should read Part 1 first and Part 2. For more detail in case one is a developer (or just someone really interested), they can also read Part 3. It is recommended to read the **Document Conventions** first in case of encountering unfamiliar words/terminology.*

1.3 Project Scope

The RandoIMG website is like that of an Image Board with comments for the discussion relating to said image, but instead of multiple image posts, there will only be one image posted at a time, like a billboard of sorts. Anyone with access to the internet using a browser from 2015 onward should be able to access and use this website whether they are on desktop or on mobile devices. These people can anonymously post any random image when upload is available, and maybe even start a discussion. The images can be anything, most likely usage could be to post memes and such.

1.4 Document Conventions

- ***DMCA take-down*** *- a notice & process copyright holders use to remove or take down copyright-infringing material from websites. When the site that was issued such a notice refuses to remove the infringing content, they can also become liable for copyright infringement.*
- ***doxxed/doxxing*** *– Publishing private/identifying information regarding someone unto the internet (usually maliciously)*
- ***defamation*** *– Damaging someone's reputation (with a false publication)*
- ***copyright*** *– Rights creators have over works they create that they usually automatically obtain. This is the "right to copy" in that only the author or those given permission may reproduce such work.*
- ***copyright infringement*** *– Using copyrighted works without permission.*

2. Overall Description

2.1 Product Perspective

Just like that of a billboard, the main page displays the uploaded image in a large view and it is the first thing that users will see front and center upon entering the site. This image can then be voted and commented on like in internet forums. The votes determine whether the image stays up longer or if it becomes "replaceable" much earlier (enabling the upload button). This site can then be like some kind of "image of the day" display if it has a lot of positive votes.

2.2 Product Features

- *Image Display (billboard-like) (max uptime 24hrs)*
- *Image Upload*
- *Anonymous voting (to affect how much time the image gets to stay up)*
- *User Registration/Log-in*
- *Automatic Logout for inactivity*
- *Comment section for logged-in users*   [unimplemented]
- *Contact developer/admin*   [unimplemented]

2.3 User Classes and Characteristics

2.3.1   Regular user

This user would be the everyday users that visit the site and vote on the image but they would be unable to comment. They can also upload their own image once the timer is up and the upload button is enabled.

2.3.2   Logged-in user

This user would be able to comment on the image displayed on the front page while it is still up. When the image's time is up, the comment section is also disabled.

2.3.3   Administrator

The admin would have the ability to delete the displayed image and comments on the image (for cases like privacy/copyright infringement). They can also delete registered users from the site.

2.4 Operating Environment

*Should run in **Windows 7-10**, **Linux**, **Mac OS**, **Android**, **iOS**, or any OS that can run modern internet browsing software such as: **Mozilla Firefox**, **Google Chrome**, **Internet Explorer 11**, **Opera**, **Microsoft Edge**, **Safari**, etc. Said system should also have a display that the user can interact with such as a touch feature, physical navigation buttons, keyboard, and/or mouse. The Frontend is the usual **HTML**+**CSS**+**JavaScript** and Backend should be run using **Django** (python) with **MySQL** as a database and also with the **session_security middleware** installed.*

2.5 User Documentation

While the website should be easy to use for people who have spent a while on the internet, there can be an explanation regarding the site in the About page which is accessed by clicking/tapping on the About link/button located on the top right of the pages (except the About page itself).

2.6 Assumptions and Dependencies

2.7.1 Time Dependency

Over the course of development, the amount of time spent coding for this site might give rise to other ideas regarding extra features that could be added to the site.

2.7.2 Hardware Dependency

Like any other site, this one relies on internet-capable hardware that also has a display and a can run internet browser software.

3. System Features

3.1 Image Display

3.1.1 Description and Priority

This is one of the main features of this site, to display an image over a large area on the page for visitors to see. The priority of this feature should be High.

3.1.2 Stimulus/Response Sequences

1 – Image is displayed upon opening the site.
2 – User looks at the image and determine whether admire, get offended, vote, and/or comment.

3.1.3 Functional Requirements

REQ-1:	The image should be the first thing the users see upon visiting.
REQ-2:	Image displayed should take up a large area of the page.
REQ-3:	Site should support displaying **JPG**, **PNG**, **GIF**, **BMP**, **ICO**, **TIFF**, and **SVG**
REQ-4:	Image can be deleted/replaced by website administrator at any time.

3.2 Image Upload

3.2.1 Description and Priority

Another one of the main features: the ability to replace said image with their own. The priority of this feature should be High.

3.2.2   Stimulus/Response Sequences

1 – Displayed Image is seen upon opening the site.
2 – User checks if upload timer is finished.
3 – If time is up, user can then click the upload/replace button.
4 – File upload prompt is displayed.
5 – User picks an image (that is in a compatible format) and presses "upload".
6 – New Image is displayed on the main page
7 – Comments are deleted (if there were any prior to image upload)

3.2.3   Functional Requirements

REQ-1:   Upload should support **JPG**, **PNG**, **GIF**, **BMP**, **ICO**, **TIFF**, and **SVG**
REQ-2:   jQuery's Ajax should correctly send an XMLHttpRequest to
https://worldtimeapi.org to get Philippine Internet time (GMT+8) to use as a
basis for computing the time left.
REQ-3:   Upload button should by default, stay locked for 30mins before becoming
unlocked while total votes (upvote & downvote) fall below 51.
REQ-4:   Above 50 votes, the time in which the image can stay up (or the upload
button locked) should become affected following the guide below:

OK	NOTOK	Total	Time
-	-	-	30min (default)
100%	0%	50+	+2hr
91%	9%	50+	+2hr ============= threshold
90%	10%	50+	+1hr ============= threshold
75%	25%	50+	+1hr
66%	34%	50+	+1hr ============= threshold
65%	35%	50+	none ============= threshold
50%	50%	50+	none
35%	65%	50+	none ============= threshold
34%	66%	50+	-1hr ============= threshold
25%	75%	50+	-1hr
10%	90%	50+	-1hr
9%	91%	50+	-(remaining time) ==== threshold
0%	100%	50+	-(remaining time) ==== threshold

then onwards, time is affected every 30 reactions/votes.
ex: 80, 110, 140,...

3.3 Anonymous Image Voting

3.3.1   Description and Priority

Another one of the main features: the ability to upvote or downvote the image to affect the amount of time it stays up. The priority of this feature should be High.

3.3.2   Stimulus/Response Sequences

1 –.User sees the image and either likes or dislikes it.
*2 – Right below the image, users can click on the **OK/NOT OK** button.*
*3 – Clicking **OK** increases the **OK** counter & **blue bar**.*
*4 – Clicking **OK** increases the **NOT OK** counter & **red bar**.*

3.3.3   Functional Requirements

REQ-1:   Clicking on OK should increment the counter below by 1
REQ-2:   Clicking on NOT OK should increment the counter below by 1
REQ-3:   Every time a OK/NOT OK counter is incremented, the red/blue bar should
be updated based on the percentage of OK/NOT OK votes.

3.4 User Registration/Log-in

3.4.1 Description and Priority

This is the ability to register or login to the site to enable extra features like commenting. The priority of this feature should be Medium.

3.4.2 Stimulus/Response Sequences

*1 –.In any page, user can click on "**Log In / Sign Up**" on the upper right.*
2 – Log-in page opens.
3 – User can Log in.
*4 – If not registered, user can click on "**Sign Up!**" link below the Log In button.*
5 – Sign Up page opens.
6 – User can register.
7 – After registration, Log In page opens again but with a success message.
8 – User can log in.
9 – User is redirected to Main page with a success message.

3.4.3 Functional Requirements

REQ-1: Successfully logging in should redirect to the main page with a "user successfully logged in." message.
REQ-2: Successfully signing up should redirect to the login page with a "user successfully registered." message.
REQ-3: An error should pop up when the password has no capital letter, number, symbol, or is less than 8 characters.
REQ-4: An error should pop up if the 2 passwords don't match
REQ-5: Email should be verified to complete registration. (by sending verification link to user's email) [unimplemented]

3.5 Comment section for logged-in users (unimplemented)

3.5.1 Description and Priority

This is the ability for logged-in users to make comments under the image. Non-registered users can also see the comment section. The priority of this feature should be Medium.

3.5.2 Stimulus/Response Sequences

1 –.After seeing the image (and maybe voting) users can see the comments by scrolling.
2 – Users can read the comments and also anonymously upvote/downvote each.
*3 – The users can create a comment by clicking the "**make a comment**" button.*
*4 – User types out comment and clicks "**Done.**"*
5 – New comment is posted and displayed with the other ones.

3.5.3 Functional Requirements

REQ-1: Clicking on "make a comment" should make an editor pop up.
REQ-2: Clicking on the editor "Done" should post the comment (unless there is nothing inside.)
REQ-3: A warning "Are you sure you want to leave? You haven't posted your comment." should pop up if the user tries to leave while the editor is still open. (unless there is nothing inside)

REQ-4: Clicking on the up arrow (upvote) should increment the comment score and make it rise above other comments that have a lower score. Pressing it again undoes the above action.

REQ-5: Clicking on the down arrow (downvote) should decrement the comment score and make it sink below other comments that have a higher score. Pressing it again undoes the above action.

REQ-6: Logging-out should make the "make a comment" button disappear.

REQ-7: Comments can be deleted/replaced by website administrator at any time.

3.6 Automatic Logout for inactivity

3.6.1 Description and Priority

The logged-in user is logged out after 5 mins of complete inactivity. The priority of this feature should be Low.

3.6.2 Stimulus/Response Sequences

1 – User stops clicking pages, or just stops moving the mouse inside of the browser page completely.
2 – Site starts counting down in the background.
3 – Warning pops up after 4 minutes.
4 – User is Logged out after 5 minutes.

3.6.3 Functional Requirements

REQ-1: session_security middleware should be installed in Django 1.8 or 2.0

REQ-2: Each html page should have jQuery 1.7+ and "{% include 'session_security/all.html' %}" on the top of the page right after the jQuery entry.

REQ-3: Django's settings.py should have these entries:
SESSION_SECURITY_WARN_AFTER = 240
SESSION_SECURITY_EXPIRE_AFTER = 300
SESSION_EXPIRE_AT_BROWSER_CLOSE = True

3.7 Contact developer/admin (unimplemented)

3.7.1 Description and Priority

Users can contact the developer/administrator though the Contact page.
The priority of this feature should be Medium.

3.7.2 Stimulus/Response Sequences

*1 – In any page, user can click on the "**Contact**" button on the upper right.*
2 – Contact page opens.
*3 – User inputs email, name, message, and clicks "**Send**".*
4 – A "Message successfully sent! Give the admin an hour to respond" message shows.
5 – User receives a reply in their email after the admin reads the message.
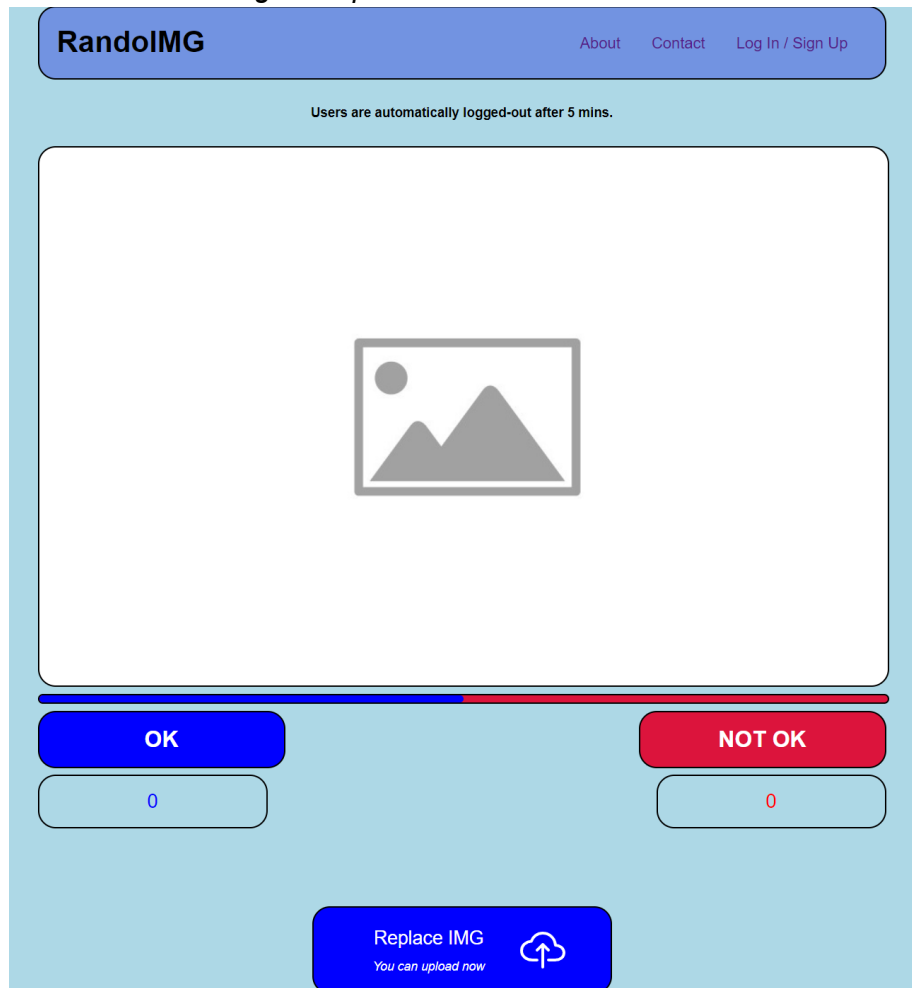
3.7.3 Functional Requirements

REQ-1: An error should appear if an incorrect email is entered. Or a message telling the user to double check should be on the contact page to remind the user.

REQ-2: Clicking "Send" should send an email to the developer/admin.
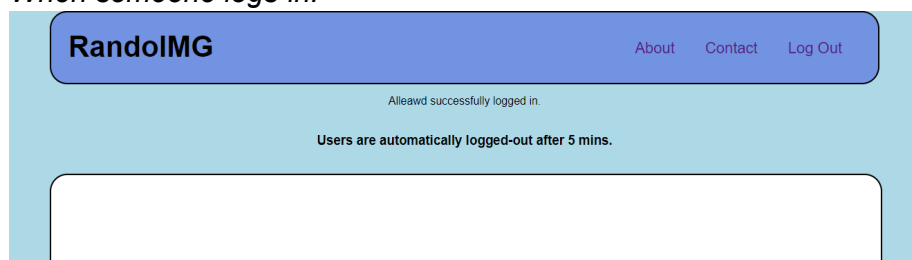
4. External Interface Requirements

4.1 User Interfaces

4.1.1 Main RandoIMG Page

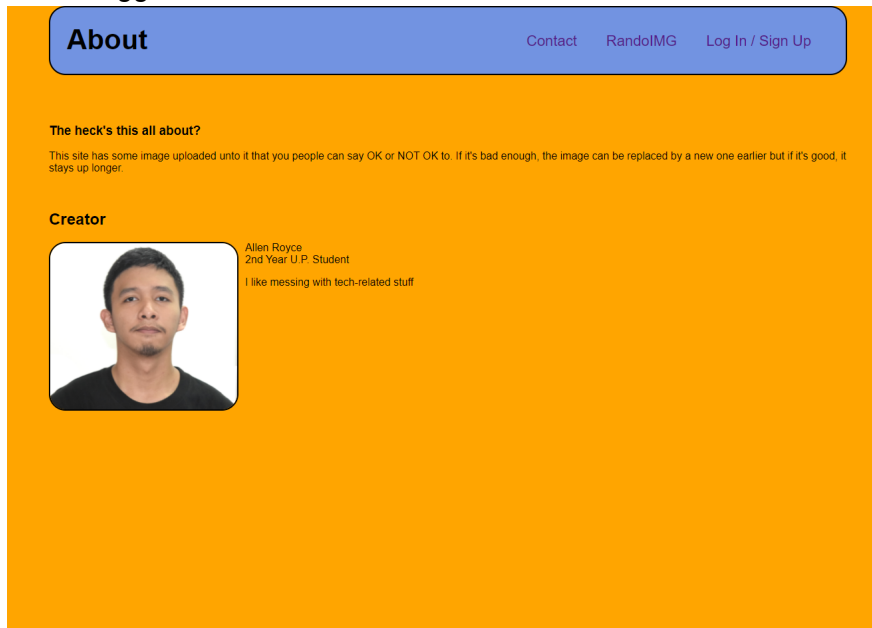*This is the first thing that opens when someone visits:*

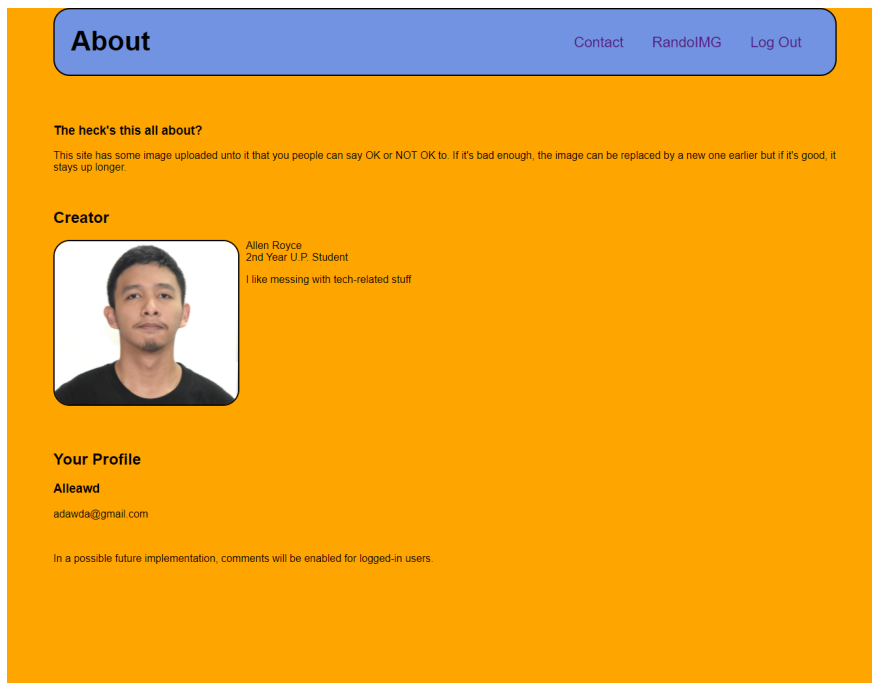**RandoIMG**   About   Contact   Log In / Sign Up

Users are automatically logged-out after 5 mins.

OK	NOT OK
0	0

Replace IMG
You can upload now

When someone logs-in:

RandoIMG   About   Contact   Log Out

Alleawd successfully logged in.

Users are automatically logged-out after 5 mins.

4.1.2   About Page

When logged out:

When logged in:

4.1.3   Contact Page (currently empty)

Contact   About   RandoIMG   Log Out

Contact me through the form below (maybe even tell me why you uploaded such an image)

(There *might* not be a form yet as this is a work-in-progress)

Contact   About   RandoIMG   Log In / Sign Up

Contact me through the form below (maybe even tell me why you uploaded such an image)

(There *might* not be a form yet as this is a work-in-progress)

4.1.4   Login Page

Log In   About   Contact   RandoIMG

Log-in here:
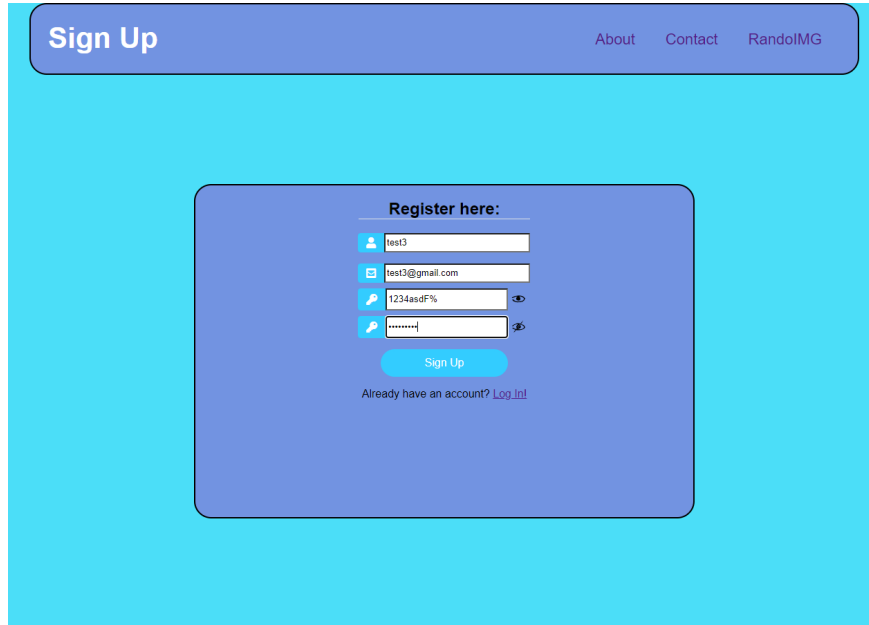
Alleawd

••••••••

Log In
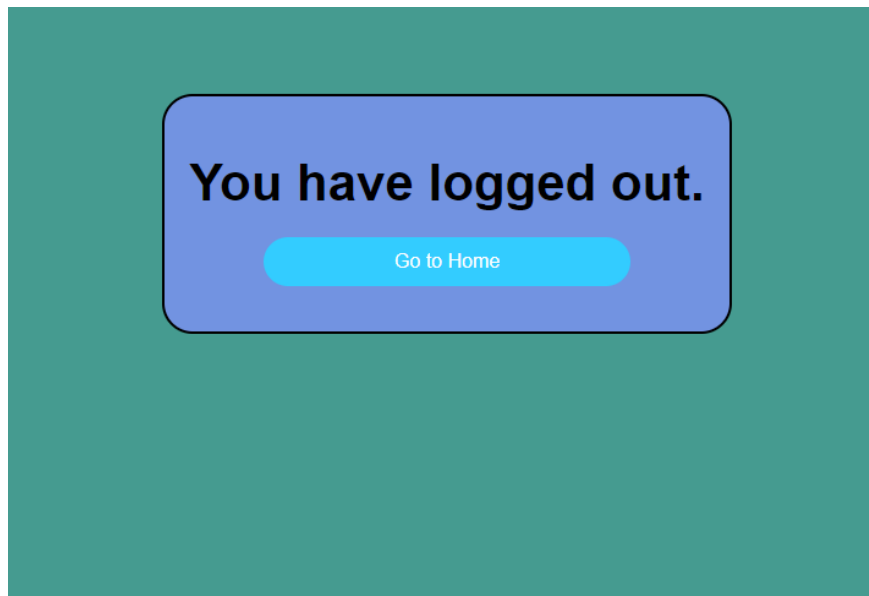
Don't have an account? Sign Up!

4.1.5   Registration Page

4.1.6   When Logging out manually

4.2 Hardware Interfaces

This site can be opened on any hardware with internet capability, a display, and internet browser software hence Smart TVs, Smartphones, Personal Computers, Gaming Consoles that have browsers, etc. These should be connected through Wi-Fi, LAN, or Mobile Data using sim cards. Communication between the client and server is handled using HTTP and TCP/IP protocol.

4.3 Software Interfaces

*OS – **any OS** capable of running modern Internet Browsing software*
*Internet Browsing software - **Mozilla Firefox**, **Google Chrome 40+**, **Internet Explorer 11**, **Opera**, **Microsoft Edge**, **Safari**, etc.*
*Frontend – **HTML, CSS, JavaScript (w/ jQuery)***
*Backend – **Django 1.8+** (using **Python 3**) (with **session_security** middleware)*
*Database – **MySQL***
*IDE – **Visual Studio Code 1.63.2** (software it was developed on) + **DataGrip 2021** (to check database)*

4.4 Communications Interfaces

This site uses an HTTP server that's running Django. A MySQL database used only to store information which is the number of upvotes (image & comments), the location of the image in the server, time left, and comments. An XMLHttpRequest is done using jQuery's Ajax to get Philippine Internet time (GMT+8) instead of relying on the local computer's time for computing the amount of time left. The site updates information in the MySQL database when POST requests are made.

5. Other Nonfunctional Requirements

5.1 Security & Safety Requirements

People who's privacy was breached (or "doxxed") due to information given out by the image/comment posted, can email the developer to have it taken down if it still has more than 30 minutes left to stay posted (not replaceable) at the time, making them unable to replace the image themselves, given that the victim in question provided proof. The same applies for images that cause defamation.

Note: The admin might take around an hour or so to respond.

5.2 Others

- *The developer/admin should hold no liability for any controversial images posted as the developer has no control or knowledge over what images anonymous sources choose and upload. But the developer/admin would do the best they can to accommodate requests of removal received through email.*

- *DMCA Takedown notices can make the admin remove images/comments.*