



GNU Mailman : Improved User Experience

By Systemwide User Defaults & Improved UI for
Subscription Management

Python Software Foundation (GNU Mailman)

ISSUED BY

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Project Information

- Organization Name - Python Software Foundation
- Sub- Organization Name - GNU Mailman
- Mentor(s) - Abhilash Raj, Stephen J. Turnbull
- Project Size - Large (350 hours)



Background

I am a third-year student at Manipal University, Jaipur, studying Computer Science & Engineering and set to graduate in 2024. My passion for technology extends to both cybersecurity and web development. In cybersecurity, I am interested in penetration testing and red teaming, which I discovered through experimenting with various security techniques in my first year of college. I have also gained proficiency in web development through coursework and personal projects, including HTML, CSS, and JavaScript. As a tech enthusiast, I am continuously looking for ways to improve and expand my skills. I have even developed a proficiency in Python and am eager to contribute to innovative projects in the technology industry. I am open to new opportunities that challenge me to grow as a developer and contribute to the broader community.



Contributions

Issues Raised:

S. No.	Contribution	Issue Link
1	Doc: Typo "graphviz" mentioned as "graphiz". (Core)	#1075

Issues Resolved:

S. No.	Contribution	Issue	MR
1	Document how to add new configuration files (Core)	#698	!1111
2	Top bar says "Login" in Postorius but "Sign In" in Hyperkitty (Postorius)	#542	!801
3	Doc: Typo "graphviz" mentioned as "graphiz". (Core)	#1075	!1114



Project Abstract

UI Improvements for Subscription Management

- This is a collection of small improvements aimed at enhancing the functionality and user experience of Postorius. The current version of Postorius presents minimal information on the subscriber list page, which only provides a link to each subscription's options page. To address this, the proposal is to provide an option to view the most important subscription options as a table, with a link to the subscriber's profile only for verbose or rarely used fields. Additionally, the current list of lists view does not present "private" lists to the logged user, even if they are a subscriber. Therefore, the proposal suggests providing an option between public and private making lists visible to subscribers but not nonsubscribers, which will improve the usability and accessibility of the application.

System Wide User defaults:

- The current version of Mailman 3 does not have a user interface (UI) to set defaults for options when subscribing to a new list. In Mailman 2, this was possible, and some site admins would like to do this systemwide in Mailman 3 as well. However, to implement this in Mailman 3, it currently requires patching the Python code. To address this, there is a proposal to add a UI in Postorius that allows administrators to set defaults for options at all administrative levels, including list, domain, and

site. This enhancement will make it easier for site admins to manage their mailing lists and provide a more seamless user experience for subscribers.



Project Description

UI Improvements:

The objective of improving the UI for subscription management is to enhance the user experience of Mailman 3. The current UI presents minimal information on the subscriber list page, with a link to each subscription's options page. This can be confusing for users who are not familiar with Mailman 3. The new UI will present more information on the subscriber list page, including the most important options as a table. Additionally, the new UI will allow users to view the subscriber's profile only for verbose or rarely used fields. The UI will also allow users to see lists that are visible to subscribers but not non-subscribers. This will make it easier for users to manage their subscriptions and increase the usability of Mailman 3. The following steps would be taken to implement the same:

1. Design the UI changes: First step would be to create a table to display the most important subscription options on the subscriber list page, and provide a link to the subscriber's profile only for verbose or rarely used fields.
2. Then determine the fields that should be classified as "verbose" or "rarely used" and display them only on the subscriber's profile page. Ensure that the link to the profile page is accessible and clearly visible on the subscriber list page.
3. Design an option to toggle between public and private views on the list of lists page with the optimal layout and placement of the toggle to ensure ease of use and accessibility.
4. Modify the code: Once the UI changes have been designed, we will modify the code to reflect the changes. This may require changes to the backend code as well as the frontend code.
5. Backend such as: the necessary code to display private lists to subscribers when the private view option is selected. Ensuring that the code is secure and does not compromise the privacy of the lists or their subscribers.

6. Test the changes: After making the necessary modifications, they would be thoroughly tested to ensure that they work as intended and do not introduce any new bugs. Refine the implementation as necessary based on user feedback.
7. The changes would then be documented and released in the new update.

System wide User Default:

The objective of introducing systemwide user defaults is to allow site admins to set default options for new subscriptions to any mailing list in the system. This will save time for the admins and make it easier to manage mailing lists. With this feature, admins will no longer need to manually set default options for each new subscription. Instead, they can set these options once at the system level and have them applied to all new subscriptions automatically. The following steps would be taken to implement the same:

1. Create the UI in Postorius: Our very first step would be to develop a user interface within Postorius that allows administrators to set default values for the identified fields at each level.
2. Implement backend functionality: Then implement the necessary backend functionality to save the default values set by administrators at the appropriate level (list, domain, or site).
3. Ensure proper data validation: Implement validation checks to ensure that the default values set by administrators are valid and conform to any restrictions or guidelines set for each field.
4. Integrate the UI with Mailman 3 core: Integrate the new UI and backend functionality with Mailman 3 core to ensure that the defaults are used when new lists are created or when new subscribers join an existing list.
5. Test and refine: Test the new feature extensively to ensure that it is working as intended and does not introduce any new bugs or issues. Refine the implementation as necessary based on user feedback.
6. The changes would then be documented and released in the new update.



Weekly Project Timeline

Work	Timeline
<ul style="list-style-type: none">● Contribute to the project by working on issues to further improve my understanding of the codebase.● Interact with the mentors and other contributors.	Pre GSoC
<ul style="list-style-type: none">● Bonding with the community actively.● Discussing and refining the project idea with the help of the community and the mentors.	Community Bonding Period (May 4- May 28)
<ul style="list-style-type: none">● Create a new section in Postorius that allows site admins to set systemwide user defaults. This section will enable the admin to set the default options for new subscribers to any list in the system.● Extend the current schema in the Mailman 3 database to add new fields to store these systemwide user defaults.	1st Week and 2nd Week (May 29- June 11)
<ul style="list-style-type: none">● Implement the improved UI for subscription management by adding a new section to Postorius that presents more information on the subscriber list page.● Add an option between public and private, making lists visible to subscribers but not nonsubscribers.● Add new fields to the Mailman 3 database schema to store the visibility status of the mailing lists.	3rd Week and 4th Week (June 12- June 25)
<ul style="list-style-type: none">● Test the new features in a staging environment to ensure that they work as expected.● Refine the systemwide user defaults and improved UI for subscription management based on feedback from users and other stakeholders.	5th Week and 6th Week (June 26- July 9)
<ul style="list-style-type: none">● Add documentation for the new features to the Mailman 3 documentation repository.	7th Week and 8th Week (July 10- July 23)

<ul style="list-style-type: none"> ● Update the Postorius documentation to include the new systemwide user defaults and improved UI for subscription management. 	
<ul style="list-style-type: none"> ● Submitting mid-term evaluations. 	(July 10- July 14) Mid-term evaluation
<ul style="list-style-type: none"> ● Perform user acceptance testing (UAT) of the new features to ensure that they meet the requirements of the users and stakeholders. ● Fix any issues identified during UAT and retest the features. 	9th Week and 10th Week (July 24 - August 6)
<ul style="list-style-type: none"> ● Buffer week. ● Fix bugs if there are any. ● Improve tests and documentation where they seem to be lacking. 	11th Week and 12th Week (August 7- August 20)
<ul style="list-style-type: none"> ● Continue contributing to the project by fixing issues and adding new enhancements. 	Post GSoC



Logistics

- The GSoC timeline is in sync with my university's summer break (mid May) and thus it will give me enough time to work on this project. I understand that GSoC is equivalent to a full-time program and hence I plan to devote at least 30-35 hours a week to this project.
- My university reopens in mid-August and even if some part of the timeline coincides there will be no exams in that period, allowing me to devote ample time to work on and complete this project in the stipulated time frame. I am excited to spend my summer working on this project!



Eligibility

Yes, I'm eligible for Google Summer of Code 2023.



Are you applying for other Projects?

No, I am applying only for this project.



Communication

- You can reach me via email, or phone calls.
- I will provide frequent updates to my mentor(s) regarding the project's advancement and any obstacles I may face.
- Weekly blog posts will be written by me to document my project's progress.