

User Profile Management

New Features and Automation

This document highlights the recent enhancements and new features to add to the User Profile Management application.

1. User Authentication

Frontend (Signup/Login)

The frontend now facilitates user signup and login to provide a secure and personalized experience.

- Signup:

- Users can register using their email, username, and password.
- Passwords are securely hashed using Django's authentication system.

- Login:

- Existing users can log in with their email/username and password.
- Sessions and authentication tokens are managed by Django.

- Email Confirmation and/or 2FA:

- The code currently does not deploy any email confirmation, as that is normal/traditional way of handling signups, nor does it handle 2FA.
- Ideally, this would be integrated with something like sendgrid where templates would be sent out that allows prospective users to click on an email to confirm they are the owner of the email address

- New cellphone validation library:

- The current library was chosen with little vetting. It does work in some cases, but after testing it, it could not determine the difference between landline and cellphone far too frequently. So added a phone type to the model and left it at that. If this were a real app, this would not suffice because of the high failure rate. A different library/method would need to be deployed

2. Phone Number Region Code Selection

Frontend

To enhance user experience and accommodate international phone numbers, a new feature to select the region code for phone numbers during profile creation.

Region Code Selection:

- During profile creation or update, users can now select their region code from a dropdown menu.
- This ensures accurate formatting of phone numbers based on regional standards.

3. Automation

Terraform IaC

Terraform Infrastructure as Code ensures consistent and automated server provisioning.

- Terraform Script:

- Defines server specifications (e.g., Ubuntu, ports, security groups).
- Ensures reproducible infrastructure.

4. Conclusion

With these possible new additions, the User Profile Management application would offer a seamless authentication experience, robust profile management capabilities, and automated deployment processes. These features aim to enhance user interaction and maintain a scalable and maintainable codebase.