

Feature descriptions

- User accounts and associated notes
- Sessions and cookies for persistent user login
- Create, show, edit, and delete notes
- Restricted access to user's own notes
- Note feed on each user's profile and home page sorted by last creation time
- View all users on the system
- Change user account settings
- Option to import Gravatar account information
- Secure password encryption

Design Challenges

- Create notes and users
 - Both have controllers, models, and views. Database schemas are created with generate and updated as necessary with migrations.
- Edit notes and users
 - Done similarly with updates, shows (for notes), in the with controller actions updating the model, then routed to the view
- Associate users and notes
 - Has_many and belongs_to relationship between users and notes in the rails models classes as well as a user_id field to associate them
- Sessions and persistent login
 - Implemented with a sessions controller and helper that keeps track of the current user after signin and persists it in a cookie.
 - Secured with SecureRandom module to generate cookie encryption
 - Take advantage of has_many and belongs_to relationships as well as current_user implementation to retrieve associated notes
- Secure logins
 - Uses has_secure_password module in User model
- Display repetitive HTML elements over multiple pages
 - Options:
 - Copy and paste duplicate code in different views
 - Use partials to render and stitch together different page elements
 - Solution:
 - Use partials to piece together HTML pieces with embedded Ruby code to avoid repetition
- Resolve and generate dynamic link structure that grows with the number of posts and users
 - Use rails routing and the RESTful design paradigm as an intuitive and dynamic link structure
- Restrict user to only view own notes

- In users controller, make sure before any actions are taken that the logged in user is viewing the requested users' notes
- In notes controller make sure that before showing the note, make sure the signed in user is the note's creator