

Product Backlog

VENote, Team 14

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Problem Statement

Engineering notebooks are legal documents engineers use to settle patent disputes, onboard new engineers, and identify errors in the creation process. These documents are not digital and are therefore difficult to share, format, search, and backup. Our software will allow engineers to easily create digital engineering notebooks that can also be used as legal documents in court.

Background Information

Problem details

Engineering notebooks are legal documents used primarily by engineers and are critical to settle patent disputes, inform engineers new to the project about the project, and identify error in the creation process.

Domain

This product would be used primarily in the engineering domain. It is useful for documentation tool. Almost all engineers are expected to keep notebooks documenting their work.

Targeted Users

The target user of this product is an engineer or a manager for an engineering company. Engineers will use it to keep track of their work and managers will use it to measure progress. It can also be turned over to lawyers in the case of a legal dispute to prove inventorship of a product.

Similar Platforms and their Limitations

Currently, engineering notebooks are made by using physical notebooks with a strict set of rules. The intent is to keep the notebook secure against tampering and ensures it as a legal document. The physicality places the burden on the engineer to format and follow the strict guidelines.

In less formal settings, websites and other digital mediums are used for convenience. Programs like OneNote/Evernote are software solutions to the engineering notebook. However, formatting, non editable page submissions, and user authenticated signatures are missing features that invalidate the documents legality. These editing options can be enforced by our server and eSignatures can validate the documents.

Other alternatives are built-in options for computer-aided design (CAD) software, such as PTC Mathcad or Autodesk Inventor, which are expensive and proprietary. For VENote, having a program with a single purpose allows us to keep the costs reasonable.

VENote aims to solve these problems and bring the engineering notebook virtual. It is dedicated to creating better engineering notebooks, faster. VENote intends to be collaborative and administer friendly allowing for small and large companies to manage and maintain as many engineering notebooks unlike any other current software solutions.

Requirements

Functional

As a user, I would like to

1. Add text to the notebook
2. Comment on pages
3. As a user I would like an introductory tutorial
4. Make corrections in the proper format
5. Add images to the notebook
6. Sign pages
7. Caption pictures in the notebook
8. Use a paintbrush tool to add custom drawings to the notebook
9. Share a notebook through email.
10. Share a notebook through a link.
11. Share a notebook to another person without an account.
12. Know the number of pages
13. Know the timestamp of pages
14. Query all notebooks for a specific notebook
15. Query all notebooks for a specific timestamp - update on GH
16. Query all notebooks for specific text
17. Query a notebook for a specific page
18. Query a notebook for specific text
19. Query a page for specific text
20. Create notebook groups
21. Share a notebook
22. Give feedback to developers
23. Upload general files to the notebooks
24. Upload STL to the notebooks if time allows
25. Upload FBX to the notebooks if time allows
26. Export notebooks as PDFs containing 3D-viewers
27. Tag notebook pages
28. Export notebooks as PDF
29. Sign notebook pages

30. Back up a notebook to a secondary storage location - update on GH
31. Know why I can't edit previous pages
32. Access the notebook from the internet
33. Access the notebook offline if time allows
34. Choose what formatting and rules are applied to my page
35. Location to be logged and have the option to keep track of where I edit my pages from.

As a manager, I would like to

36. Prevent notebook tampering
37. View a group of user's notebooks
38. Co-sign notebook pages
39. Assign user permissions to other users
40. Submit a notebook for legal approval
41. Assign specific users access to certain notebooks
42. Handle a large number of users

Non-Functional

- Intuitive UI - it should be easier for customers to use our tool than it is for them to use existing tools
- Fast site loading times (under 1 second)
- Handle large usage load
- Handle large number of users
- Secure communication line using https
- Secure communication line using a direct connection
- Developers maintain server backend using Node.js
- Developers maintain a secure database using MySQL
- Developers maintain a querying mechanic to interact with MySQL database
- Developers maintain config file for easy minor tweaks
- Developers alter the server through a centralized location