

User research hypotheses

1) Attitude

We believe that users want to preview the text after editing because they want to be able to confirm that some of the image links and formatting are as they expect. [unproved]

We believe that users want to see the corresponding help tips next to some buttons because they don't want to jump to the home page notes to see the help documentation every time. [unknown]

We believe that users want to search within the note title and note content based on the keywords entered because they don't want to remember the full name of each note. [proved]

We believe that users can sort by the most recent updated date because they want to know which notes have been recently modified. [unproved]

We believe that users want to see an aesthetic interface because they do not want to view an ugly, color-monotone interface that affects vision. [proved]

We believe that users would like to have more export formats as options because they want to export notes in a format that better suits their needs. [proved]

2) Behavior

We believe that users rely on the undo function to remove previous errors because they will always create some misbehavior or modify previous versions. [unknown]

We believe that users are more comfortable taking notes by handwriting mode because they can do so more efficiently and accurately. [proved]

We believe that users can rely on the tagging feature to tag and categorize some special notes because they have to manage multiple notes at the same time. [unproven]

We believe that users prefer to use a swipe on the left side to get the sidebar instead of reaching for the hamburger menu because they are more accustomed to using one-handed operations to accomplish simple tasks. [unknown]

We believe users will be more comfortable editing where they are just viewing rather than editing from the end because they don't want to spend more time comparing and finding the place they just want to edit. [proved]

We believe that users will rely on the drag-and-drop operation to sort their notes because they need to organize each notebook according to their own preferences and habits. [proved]

3) Feature

We believe that not allowing users to have the same name for different notes will make it easier for users to manipulate them because they don't need to click on the notes one by one to confirm them. [unknown]

We believe that allowing users to adjust the speed at which they scroll can make browsing more efficient because they can read more efficiently according to their preferences. [proved]

We believe that adding a progress bar after clicking the sync button will allow users to not have to worry about previous actions for unresponsive screens because they can more visually understand the status of the system from the sync progress. [proved]

We believe that allowing users to encrypt specific files will protect their privacy because they need to keep some files from being publicly displayed to others. [unknown]

We believe allowing users to set alarms in their to-do lists will better remind them of what they need to do because the alarms will be more efficient than forcing them to open the app to check. [unproven]

We believe that adding a view-only mode for users will increase the efficiency of user review because users will not be forced to jump to some URLs by mistakenly clicking on some hyperlinks. [unknown]

User Interview Analysis

Themes:

- Product situation
- Usability
- Individuation
- Optimization
- Compatibility

Product situation:

- Most users are satisfied with Joplin and they generally find it a very convenient and fast open source note taking application. it is privacy-focused, stable and powerful search feature (End to End encrypted)
- The spell check feature of the desktop application has been mentioned several times and is considered a great addition.
- Supporting cloud sync which prevents loss of notes (One drive, Next cloud, WebDAV, Dropbox, S3(beta), Joplin Server(beta), Joplin Cloud).

- Excellent free note sharing app with cross compatibility which is able to go back and forth among notes using shortcut keys.

Usability:

- Compared to the PC version, most users feel that there are many new features that need to be built into the mobile version to help users take notes or manage them better
- Need to add a few actions that users are used to (or frequently repeat), and for to-do lists, it's better to automatically generate a few verbose prefixes than to force users to type. For the import image button, it would be better if you didn't have to click it repeatedly (Multiple chosen images).
- The synchronization operation has many loopholes. The operation of locking the screen and cutting off the power will interrupt the synchronization progress unexpectedly. Synchronization data may be lost when it is synchronized to different clouds.
- Add the type of synchronous drive, which can accept other synchronous drives, increasing the user's optional.
- Improve the effectiveness of the search function. The partial note name can be searched and the search range should cover note title and note content.
- Most users believe that the addition of handwriting input increases user efficiency and enhances the user experience. More importantly, it can follow the mainstream notebook style and give users more maneuverability.

Individuation:

- Personalized customized scroll bar, users can adjust the speed of scrolling page according to their browsing speed in order to improve the user's browsing experience
- Allows users to set their own font sizes to enhance the browsing experience and ensure that users can see text without having to adjust to the default font size.
- Customize the color of the interface so that users can change their favorite color to meet their vision and improve the visual experience of users when using the Joplin.

Optimization:

- Optimize the latency problem when notes occupy large memory. When users enter long notes (> 30 lines), resulting in a very poor experience. The running memory of the software needs to be reduced to achieve control fluency
- Optimize the lagging problem that occurs when notes are automatically saved/synchronized for operation, and the need to ensure that user-entered data is not lost without affecting the user's use.
- Increasing the size of the attachment can make the content of the attachment richer and less limited to meet the needs of users

Compatibility:

- There is an urgent need to optimize compatibility issues for Android devices. The main problem is that the sync notes for Android will encounter permissions that can't be lifted, resulting in users not being able to use them properly
- Optimized for compatibility with multiple file formats, allows users to have more options depending on their needs.
- Need optimized sharing with other applications in order to share Joplin notes from other applications, improving sharing and compatibility with users using Joplin.

Problem statements

- 1) Dhritiman Ray, a meeting note-taker, needs to maintain a high level of fluency when notes reach a certain length in order to be able to quickly and accurately record every important piece of information during every meeting.
- 2) Monte Webster, a user of sync notes, needs to add some visual elements (such as a sync progress bar) to show the completion of the sync operation in order to let the user know about the system status more visually and without wasting their time.
- 3) ~~Yamson~~ Yamson, a user attempting to edit a long note, who needs a faster scrollbar plugin to navigate the note page in order to spend less time getting to the location where he wants to view the note
- 4) Foxpaws Studios, an office employee, needed to export notes to txt and pdf format files on her cell phone in order to ensure that export files could be opened with a compatible editor without having to spend time converting file formats.
- 5) Valdemar T. Carlsen, a user of Android 11 who was trying to sync with his local system, needed to sync his notes on his Android 11 device in order to be able to sync and backup the notes on this device without losing them.
- 6) Casey Strouse, a user of Google Drive, needs to be able to sync his notes to Google Drive in order to better organize all his notes without having to create a new sync drive and then migrate them.
- 7) Nadine Custos, a college student, needs to be able to jump to the location where she is currently reading in order to avoid spending a lot of time comparing and finding the place she just wants to edit.
- 8) Sergei Aleinikov, a Joplin user as well as a university student, needed to be able to adjust the font size of note contents according to his needs in order to be able to read them more clearly without being touched by mistake while using the notes.

Appendix

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Code and Theme of [400 app reviews \(Part of them\)](#)

Code	Theme	Code	Theme
user experience of app more native	User experience	let us adjust (or disable) the interval for auto-save	useability
change size of the font	Customization	Auto save can't be disabled.cant really edit long notes on mobile	User experience
To-Do lists is a real pain have to manually write or paste "- []".	useability	Android app to a read-only client	User experience useability
so lag when i write long notes.	Current Product/fluency	still not supporting create/move subnotebook a couple of years	useability
(custom order seems to do nothing)	Customization	Looking forward to a better editor and a way to set its font size.	Customization
but this app is lacking some handy functionality I'd say	User experience	the app is a bit bulky and lacks some features	useability
This version doesn't support S pen writing!	Current Product/compatibility	Would be better to have it load on its own view.	User experience
web clipper on mobile really needed	Current Product	desperately needs the ability to create sub notebooks	useability
are too complicated and the language are too technical	User experience	syncing to Android is a nightmare.	useability
the fact that you have to learn Markdown to use the	Current Product	added to the view mode	useability
the app cannot keep up with the writing	Current Product/compatibility	Missing features like creating sub folders, templates, plug-ins.	useability
android app refuses to connect with anything other	Current Product/compatibility	more editing option, just like the desktop version	useability
attached video files are showing blank previews/thumbnails?	User experience	no support for Gdrive yet but looking forward to the future.	compatibility
Not so much on Android	Current Product/compatibility	This thing I hate most is the interface which is slow, clunky, unintuitive	User experience
and add some useability enhancements.	useability	text input in this app is really slow.	User experience
takes 10 touches due to the special characters.	useability	HTML and markdown feels such chore	User experience
starts to lag the undo button not there.	useability	the mobile app doesn't sync..	useability
much more tedious to write in on mobile.	useability	displaying the markdown code for images when editing isn't very user-friendly.	useability
Kindly add this ability! I used this feature quite a lot with Evernote.	User experience	support for tables or spreadsheets.	compatibility

Code	Theme	Code	Theme
why after 300-500 characters does the app start lagging behind	Current Product/fluency	feel more fluid in the future updates	Optimization
whatever that bar of buttons atop your keyboard that type in symbols or \t for you renders this unusable.	useability	is a revamp to the ui to be a bit more pleasant and user friendly!	User experience
it makes editing notes really laggy and sometimes some data gets lost	Optimization	It doesn't run smoothly on Android and syncing is kind of slow but overall an awesome software.	Optimization
weird android bug, when you use backspace to delete words, then it would shut down.	Optimization	So, you synchronise, and it looks as though it's working, BUT IT ISN'T	useability
the keyboard can't follow my typing, A minor issue for me is that it always opens up notes for editing at the bottom and in long notes it takes ages to move back to the top	User experience	Joplin does not keep the file structure I may have already: it uses undecypherable file names it does not allow me to share the Joplin app folder it created between multiple Dropbox account	useability
Currently grinds to almost a standstill as note length becomes more than a few paragraphs.	Optimization	Android versions are a bit slow for me but I have used it on occasion.	Optimization
1. Themes 2. Exporting notes as pdf (other markdown editors like NeutriNote can do this, why can't Joplin?).	useability	the editor/cursor starts lagging immensely. Exiting and entering the editor again seems to resolve for a little while..	Optimization
1. It is impossible to disable annoying autosave. 2. It doesn't remember the last used position in editor.	User experience	Though the mobile version still lacks certain features like a dedicated search function in individual notes	User experience
Sync is a pain.deleted all traces of anything with the word Joplin in it,	Optimization	Tried it from both tablet (Samsung s5e) and phone (pixel 3 xl)	Compatibility
No import function.	useability	The only negative point is that the menu button (top left) is difficult to tap with one hand.	User experience
Startup time is 5 seconds,	Optimization	A better theme, a better interface for to do lists.	Customization
I wrote about 18 lines of text the process of writing became very laggy and uncomfortable	Optimization	but until they support WYSIWYG on Windows and Android that's all it is for the average schmuck.	compatibility
Sometimes when writing 5+ rows of text in a	Current Product/fluency	The only current downside is that editing becomes	Optimization

session, the app freezes or extremely lags.		slow for long notes.	
Needs better search tools, currently it only allows searching of all notes from the notebook overview	Useability	except it's very slow to startup which is a pretty big issue when you just want to save a bit of text	Optimization
This deleted all my notes. I clicked off the failsafe as suggested by the sync message that kept popping up.	Useability	Would like U2F to be added for extra security.	security
it would be cool to add a little toolbar to mobile for nice functionality on the go	Useability	but there is no WYSIWYG editor both in mobile and desktop versions	User experience
I can't find a way to create sub-folders or export as	Useability	Most of all: search. It will not find incomplete words. You need to type it out or else it won't find anything.	User experience
Please make a proper and good looking real dark theme	Customization	Please remove the Welcome screen when pressing the back button while in notebook.	Useability
Why doesn't it use swipes, material design and seems to have custom menus that emulate IOS design?	User experience	App can't synchronize when the battery saver is on.	Useability
Sync is not user friendly.If you move your folder in Nextcloud it deletes all your notes	Optimization	mobile version could do with more QOL/accessibility features like scalable UI and plugins	User experience
It crashes periodically and makes my phone overheat.	compatibility	poor performance On OnePlus 5 (Android 9). Even with just the default notes the app notably lags	Optimization
1. Lags. Optimization needed.	Optimization	syncing isn't working properly	User experience
but on android I see only error "permission denied: cannot create folder".	Useability	MARKDOWN is too basic and feels limited.	User experience
Please fix the positioning of Arabic script.	User experience	Can be flicked to scroll faster or if that's too complicated, add a "scroll bar".	Customization
One thing is that the background of the diagram will show as white even in dark mode	User experience	Please add google notes style tick boxes where lists of multiple tick boxes	User experience
for example the todo lists, you have to write - [] wich is hard in the phone.	useability	it doesn't support handwritten notes	User experience