Release Planning Document

Course: COSC 4P02

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Group Number 13

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Project Title: Knotes

Github: https://github.com/J-Rawes/Knotes

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# **1. Introduction**

Note taking is very important for learning and retaining knowledge in a course. Many times there are students who were unable to make it to a class, or students with disabilities unable to take the notes themselves. Sharing notes can be a beneficial way to overcome both these problems. Knotes is an online service that allows users to upload their class notes and convert them into a compilation of texts and images. On the Knotes websites, users can view other notes uploaded by their fellow classmates and show their support with a like, allowing the user who liked the note to save it for later, and the note itself being prioritized for other classmates browsing the course.

# **2. User Stories**

**Legend**

UX/UI = RED

Image/File Handling = BLUE

Account Management = GREEN

Non-Functional Requirement/MISC = YELLOW

|  |  |  |
| --- | --- | --- |
| ID | Description | Priority (n/5) |
| 001 | As a user I want to be able to upload an image file of any type so that I do not have to worry about changing the file type on my own. | 4 |
| 002 | As a user I want to be able to select parts of my notes so that they can be converted into text. | 5 |
| 003 | As a user I want to be able to select images from my notes and be able to comment on them so that I can give context to my text. | 5 |
| 004 | As a user I want to be able to vote on notes I like so that better received notes get priority on my course feed. | 3 |
| 005 | As a user, I want to be able to create an account so that I can upload my own notes. | 5 |
| 006 | As a user, I want to be able to search for notes based on the course I am taking so that I do not have to manually search for them. | 3 |
| 007 | As a user I want my scans to upload in an acceptable timeframe so that my experience with the Knotes application is not frustraiting | 2 |
| 008 | As a user I want to be able to upload batches of notes in bulk so that I can save time. | 3 |
| 009 | As a user I want the interface to be clear and organized so traversal of the site is easy | 4 |
| 010 | As a user, I want to be able to save courses I am taking so that it appears on my homepage. | 4 |
| 011 | As a user, I want to be able to see the notes I like on a separate page so I can keep track of notes I found useful. | 3 |
| 012 | As a user, I want to be able to search notes by title so I can find notes for certain lectures or dates. | 2 |
| 013 | As a user, I want my account information to be stored securely so I am not vulnerable to a data breach. | 5 |
| 014 | As a user, I want to create and save notes so that I can access them at a later date. | 5 |
| 015 | As a user, I wish to be able to comment on my own notes, or the notes of others to provide additional context | 4 |
| 016 | As a user, I want my notes to be backed-up so I can retrieve them post-deletion. | 1 |
| 017 | As a user, I wish to be able to search for specific tags to find notes relevant to specific topics. | 2 |
| 018 | As a user, I wish to be able to edit my notes and comments to keep them up to date. | 3 |
| 019 | As a user, I wish to be able to receive notifications if someone comments on my notes so I can update them if I have incorrect notes. | 3 |
| 020 | As a user, I want to be able to report or comment on incorrect notes to make sure they contain accurate information. | 4 |
| 021 | As a user, I want to be able to reset my password so I can access my account if I forget it. | 3 |
| 022 | As a student, I wish to be able to download notes so I can access them offline (TENTATIVE) |  |
| 023 | As a user, I want to save searches to access my frequented subjects quickly. | 1 |
| 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | 5 |
| 025 | As a user, I want Knotes to be compatible with screen reading, magnification, and other accessibility tools. | 4 |
| 026 | As a student, I wish to be able to sort notes either by newest or most liked. | 2 |

# **3. Product Backlog**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Task ID | Task Title | Description | Acceptance Criteria | Parent User Story | Priority (n/5) |
| 001 | Upload Single File | Allow the user to upload a single file to the Knotes system to be processed. | The user can successfully upload an image file of any type without worrying about the file type. | 001 | 5 |
| 001-T | Test Single File Upload | Test the single file upload feature to ensure it supports all image file types and processes correctly. | All common image file types upload successfully without errors. | 001 | 5 |
| 002 | Upload Multiple Files | Allow the user to upload multiple files to the Knotes system to be processed. | The user can successfully upload batches of files in one go. | 008 | 3 |
| 002-T | Test Multiple File Upload | Test the multiple file upload feature to ensure batch uploads work without issues. | Users can upload multiple files simultaneously without delays or errors. | 008 | 3 |
| 003 | User Account Creation | Allow the user to create an account. | The user can successfully register and create an account. | 005 | 5 |
| 003-T | Test Account Creation | Test the account creation process to ensure successful registration for valid inputs. | Account creation succeeds with valid inputs, and error messages appear for invalid inputs. | 005 | 5 |
| 004 | User Login and Management | Allow the user to log in and manage their account. | The user can log in, manage profile settings, and log out successfully. | 005 | 4 |
| 005 | Snip Image for Text Conversion | Allow the user to snip an image to be processed for text conversion. | The user can select a specific portion of an image for text conversion. | 002 | 5 |
| 006 | Snip Multiple Parts of Image | Allow the user to snip multiple parts of the image for text conversion. | The user can select multiple regions from an image and process them for text. | 002 | 3 |
| 007 | Add Comments to Image Selections | Allow the user to comment on selected parts of their notes/images. | The user can add text-based comments to specific portions of their notes or images. | 003 | 5 |
| 007-T | Test Commenting on Image Selections | Test the functionality of adding comments to selected portions of images. | Users can add, view, and edit comments on selected areas without issues. | 003 | 5 |
| 008 | Vote on Notes | Allow users to vote on notes, resulting in a higher priority for those notes. | The user can upvote or downvote notes, and notes with higher votes appear higher in the course feed. | 004 | 3 |
| 008-T | Test Voting System | Test the voting functionality to ensure notes are ranked correctly based on votes. | Notes are prioritized accurately in the feed according to the number of votes. | 004 | 3 |
| 009 | Search Notes by Tags | Allow the user to search for notes based on certain tags. | The user can enter course tags to find specific notes related to that course. | 006 | 3 |
| 010 | Search Notes by Title | Allow the user to search for notes based on their title. | The user can search for notes by entering keywords or titles. | 012 | 2 |
| 011 | Save Liked Notes | Allow the user to have a page linked to their account that saves liked notes. | The user can view all the notes they have liked on a dedicated page. | 011 | 3 |
| 012 | Register for Courses | Allow the user to register into their courses. | The user can add and save courses they are currently taking, which will appear on their homepage. | 010 | 4 |
| 012-T | Test Course Registration | Test the ability to register and save courses. | Courses register successfully and display on the user’s homepage. | 010 | 4 |
| 013 | Ensure Fast Upload Times | Optimize the system for quick uploads. | Notes upload within an acceptable timeframe, providing a smooth user experience. | 007 | 2 |
| 013-T | Test Upload Speed | Test the upload speed to ensure it meets performance standards. | Files upload in a timely manner without delays. | 007 | 2 |
| 014 | Design Clear and Organized Interface | Develop a user-friendly interface to ensure easy traversal of the site. | The interface is intuitive, with well-structured menus and navigation options. | 009 | 4 |
| 015 | Encrypt Sensitive User Data | Sensitive user data will be encrypted at rest and in transit to ensure user information remains secure. | Data successfully travels to and from the database in an encrypted state and decrypts on the users end. | 013 | 4 |
| 016 | Note Creation | Allow notes to be created by users. | Users can create new notes successfully | 014 | 5 |
| 017 | Saving Notes | Allows users to save notes. | Users can save notes when they create or make changes to them. | 014 | 5 |
| 018 | Add Comments | Allows users to add comments to their notes and the notes of others. | Users can successfully comment on both their notes as well as the notes of other users. | 015 |  |

# **4. Sprint Backlogs**

|  |  |  |  |
| --- | --- | --- | --- |
| Sprint | User Story ID | User Story | Tasks |
| Sprint 1: Foundational Features | 005 | As a user, I want to be able to create an account so that I can upload my own notes. | Account creation, login, and testing. |
| Sprint 1: Foundational Features | 001 | As a user, I want to be able to upload an image file of any type so that I do not have to worry about changing the file type on my own. | Single file upload and testing. |
| Sprint 1: Foundational Features | 007 | As a user, I want my scans to upload in an acceptable timeframe so that my experience with the Knotes application is not frustrating. | Optimize upload speeds and performance testing. |
| Sprint 1: Foundational Features | 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | Initial steps to ensure system stability. |
| Sprint 2: Basic Note Management | 002 | As a user, I want to be able to select parts of my notes so that they can be converted into text. | Snip for text conversion. |
| Sprint 2: Basic Note Management | 014 | As a user, I want to create and save notes so that I can access them at a later date. | Note creation. |
| Sprint 2: Basic Note Management | 009 | As a user, I want the interface to be clear and organized so traversal of the site is easy. | UI/UX design. |
| Sprint 2: Basic Note Management | 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | Continue ensuring availability and reliability. |
| Sprint 3: Advanced Note Handling | 002 | As a user, I want to be able to select multiple parts of my notes for text conversion. | Multi-part snipping. |
| Sprint 3: Advanced Note Handling | 003 | As a user, I want to be able to select images from my notes and be able to comment on them so that I can give context to my text. | Adding comments to images and testing. |
| Sprint 3: Advanced Note Handling | 008 | As a user, I want to be able to upload batches of notes in bulk so that I can save time. | Batch uploads and testing. |
| Sprint 3: Advanced Note Handling | 017 | As a user, I want to save notes so that I can keep track of changes. | Save notes functionality. |
| Sprint 3: Advanced Note Handling | 016 | As a user, I want my notes to be backed up so I can retrieve them post-deletion. | Implement backups. |
| Sprint 3: Advanced Note Handling | 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | Continue ensuring availability and reliability. |
| Sprint 4: Search and Organization | 006 | As a user, I want to be able to search for notes based on the course I am taking so that I do not have to manually search for them. | Search notes by tags. |
| Sprint 4: Search and Organization | 012 | As a user, I want to be able to search notes by title so I can find notes for certain lectures or dates. | Search notes by title. |
| Sprint 4: Search and Organization | 010 | As a user, I want to save courses I am taking so that it appears on my homepage. | Course registration and testing. |
| Sprint 4: Search and Organization | 023 | As a user, I want to save searches to access my frequented subjects quickly. | Implement saved searches. |
| Sprint 4: Search and Organization | 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | Continue ensuring availability and reliability. |
| Sprint 5: Interactivity and Security | 004 | As a user, I want to be able to vote on notes I like so that better-received notes get priority on my course feed. | Voting system and testing. |
| Sprint 5: Interactivity and Security | 011 | As a user, I want to be able to see the notes I like on a separate page so I can keep track of notes I found useful. | Save liked notes. |
| Sprint 5: Interactivity and Security | 013 | As a user, I want my account information to be stored securely so I am not vulnerable to a data breach. | Data encryption. |
| Sprint 5: Interactivity and Security | 022 | As a student, I wish to be able to download notes so I can access them offline. | Note downloading functionality. |
| Sprint 5: Interactivity and Security | 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | Continue ensuring availability and reliability. |
| Sprint 6: Notifications, Reporting, and Accessibility | 018 | As a user, I wish to be able to comment on my own notes, or the notes of others, to provide additional context. | Add/edit comments. |
| Sprint 6: Notifications, Reporting, and Accessibility | 020 | As a user, I want to be able to report or comment on incorrect notes to make sure they contain accurate information. | Reporting functionality and testing. |
| Sprint 6: Notifications, Reporting, and Accessibility | 019 | As a user, I wish to receive notifications if someone comments on my notes so I can update them if I have incorrect notes. | Notifications for comments. |
| Sprint 6: Notifications, Reporting, and Accessibility | 025 | As a user, I want Knotes to be compatible with screen reading, magnification, and other accessibility tools. | Accessibility features. |
| Sprint 6: Notifications, Reporting, and Accessibility | 026 | As a student, I wish to be able to sort notes either by newest or most liked. | Sorting functionality. |
| Sprint 6: Notifications, Reporting, and Accessibility | 024 | As a user, I want Knotes to be both available and reliable so I can freely access it at any time. | Finalize ensuring availability and reliability. |

# **5. Tool Screenshots**



# **6. Team Contributions**

|  |  |
| --- | --- |
| Member | Contribution |
| Jackson | Proposal document, Release Planning Document, Github population, ImageToPNG code, Jira page creation |
| Nathen | Release Planning Document, Image Recognition Code, Server Setup |
| Owen | Proposal Document, Release Planning Document, Meeting Minutes, Database Creation/Management, Backend Logic, User Management |
| Ares | Proposal Document, Release Planning Document, Database Creation/Management, Meeting Minutes, Backend Logic, User Management |
| Connor |  |
| Ryan | Release Planning Document, Proposal Document, README, UI design, Webpage Development |

# **7. Challenges and Next Steps**

**Challenges:** Tool Limitations, such as JIRA. We aren’t extremely familiar with it due to only using it for 4P01, but we intend to try to learn how better to use it in hopes of streamlining our work. Aligning schedules between those working on the same/similar tasks is important, as synchronous work could ensure the requirements are met. It’s important to test scalability while testing, as the number of files being saved/loaded could prove to cause issues if many notes are added to the site. Defining proper access control and authorization could prove to be tricky as well.

**Next Phase:** Refine backlog tasks/taskify user stories that will be handled later in the project. Periodically check to ensure that all user stories still meet our expectations/goals. Clear any ambiguity in tasks that we do intend to keep. We should address privacy/security as soon into the project as we can. We should also do some assessment research on the feasibility of introducing AI into our project, to possibly allow for animated summaries of notes, or something like quiz creation, although this is still **tentative**. We should also plan an early round of unit testing to ensure different parts work on their own before assessing cohesion between units. Taskify user stories to provide more clarity on how our requirements will work functionally.

# **8. Appendices**

**Meeting Notes**

**January 14th, 2025, 9:00 am to 10:30 am**

**Present:** Jackson Rawes, Owen Fleming, Ryan Ulgiati, Ares Miller, Nathan Hawrylak, Connor Dodds

**Absent:** Brendan Park (TA)

* Decided to contact TA to arrange a meeting with them to discuss our project on Thursday the 16th at 6:00 pm.
* Discussed how text and images will be pulled from written notes with snipping tool-like functionality.
* Developed requirements list for the functionalities of the application including photo submission, file type conversion, “snipping” files, multi-uploading, separating images, commenting, note creation, liking notes, plaintext conversion, image compression, a show more button, and keeping load times reasonable.
* Designated requirements as front-end or back-end.
* Discussed logistics of compression using gzip. Jackson will investigate this further.
* Decided to convert image to png python code into javascript and discussed edge case of the of the file having “.” in the file name. To overcome this edge case, start reading file names from the back.
* Converted requirements into user stories for the report and covered areas missed in initial requirement run through.
* Created a Jira project to hold user stories and separate them into sprints.
* Split the requirements between members for implementation.
* Decided to wait for the meeting with the TA to finish the backlog.

End of meeting

**January 17th, 2025, 1140: am to 12:00 pm**

**Present:** Jackson Rawes, Owen Fleming, Ryan Ulgiati, Ares Miller, Nathan Hawrylak, Connor Dodds, Brendan Park (TA)

**Absent:** None

* TA went over the table of contents expectations (it’s on the example release planning document we were given, it’s intended to help whoever is reading the document jump between sections.)
* Reviewed our user stories/requirements with the TA, mostly to gauge roughly what is expected in the release planning. (Needs more structure/more req./stories, product backlog etc. Be as extensive as possible. Followed by sprint backlogs. While it won’t be fully structured, he (Nasser) is looking that we have sprint 1 planned out and then a rough draft for the next few sprints planned out. JIRA/Github screenshots, group contributions, and so on.)
  + Template is a rough idea, but if we follow close to it we should be on the right track.
* Stuff from meeting minutes into release planning/other reports (we kind of did for the first meeting)
* Brendan mainly says we want our:
  + User Stories
  + Tasks related to user stories (start with as much as we can think of)
  + Tasks in the product backlog, that will be distributed into the sprints
    - I.e just give a “global zoomed out view” about what we’re trying to do.
* Brendan talked about the importance of even adding tentative tasks, to show we were talking about other possible features
  + Also gave an example of breaking down stories: “As a user, I want to be able to upload batches of notes in bulk so that I can save time.”
    - Need to be able to upload files
    - Need to be able to upload more than one file at a time
    - Need to have some sort of association between the user and uploads, etc.
* Discussed the importance of Database Management tasks
  + Not necessarily a user story, but we can add it from a user's POV.
    - I.e “As a user, I want my scans to load quickly, so that …”
* Splitting user stories into tasks could result in overlapping tasks.
* Elaborated on how we were to share our user stories/tasks and how to build them. (Brendan taught us how to branch stories into tasks on JIRA. Thanks, Brendan!)
* Discussed the breakdown of tasks for adding more user stories/expanding upon user stories.
* Release Planning Document overview for task breakdown.

End of meeting