UI/UX Case Study

<div align="center">**PART I**</div>

Exer 1: Optimization of Canvas Website's UI to Improve User Experience

Client/Company/Project type

Canvas for student is where students can view their enrolled course, see and submit assignments and or task, view their grades and access course materials. This is a design challenge where the designer will attempt to make an improved design of Canvas website for a better user experience.

Project date

Start of Case Study

This project is my most recent project and it started on 23rd of September 2023 and will most likely last till January 2024.

User Interview

User interview was conducted on October 5th, 2023 and ended on October 6th, 2023. The interview method was the use of Google forms and distributed by the use of online communication platforms like Messenger and Discord.

Analysis on Canvas website

The analysis was conducted as soon as the case study began which was on September 24th, 2023 up until the user interview have been conducted and will most likely end right before the solution phase begins.

Designing

The design started on October 15 and in the of a week I have managed to finish all thing necessary to get started at the design prototype or what will the new design will look like to improve most of the pain points mentioned.

Exer 2: My Role

I'll be in charge with the color scheme of the interface, I'll also be optimizing the placement of objects on the website, and the hierarchal concept of the website also I'm in charge of redesign as well as the research for improving user experience.

Project Summary/About this Project

As of now a plethora of schools and universities use canvas to give task, provide resources, and communicate to students, the interface's learning curve should be low so that students can focus more on their task rather than having a hard time locating where resources are because of the unfamiliar platform and confusing. The improvement and redesign of the interface can improve the

overall user experience when using the product. Redundancies exist in the product and the goal is to reduce if not remove it completely.

Exer 3: The challenge

- **Problem Statement**

    As a user of canvas for students for 3 years now I have encountered issues and problems with the canvas website. The Canvas website's interface is full of redundant objects, while the UI is easy in the eyes on the first glance after a while when browsing through the website because you're looking for something, you'll notice that there's a bunch of Icons that is new to you and some of the navigation is rendered obsolete because of how they are placed in the UI of the website other than redundancy, the website did not follow the consistency of button icons based on functionality, and the website contains some annoying glitch that have been overlooked.

    Here are the specifics on what those problems are:

    1. Confusing Button Icons and Naming Conventions – In the Home page or as Canvas calls it "Dashboard" you'll notice that there are a lot of menu/setting button.
        - First the 3 dots in a vertical orientation that is attached on the top right corner of each course you have enrolled, that type of icon are commonly used by many websites and apps as an icon for settings but in canvas it is used as a customizing icon, that is misleading in itself and problematic because it compromises the mental model of the users have on the settings which leads to confusion. Also the lowercase "I" icon is usually used for information but in canvas it is named the help button.

        - Second is the select orientation icon, now for this button you usually have buttons each for every orientation the website's interface can do or you can toggle the button. The functionality of this button should be just to change the orientation while still keeping every content the default orientation has nothing more nothing less because if a specific orientation has an added feature that the default don't have then it's not a different orientation of interface anymore but a form of navigation to a feature and to add to the confusion the orientation in canvas website are called list view and card view, the list view is the one with a confusing UI.

    2. Confusing groupings and use of buttons – canvas navigation contains buttons with each of its own functionality: account button, courses button, calendar button, inbox button, history button, commons button, and the help button. The navigation is on a vertical orientation in that order. The problem here is that the commons button is related to authorizing canvas to process your personal data elements like name, email address, Canvas User ID, Canvas login name, Canvas Avatar, and IP Address this type of button should be inside the account since it related to your accounts personal info. Another problem would be is that the commons button doesn't have a description and without that it could be intimidating to users to grant authorization this could easily be solved by having an information button but that button is used as a help button and is in the navigation bar.

- **User Interviews**

    I conducted my user interview through the use of Google Forms. The questions I had for the users are: "How long have you been using Canvas website?", "How would you rate the UI of canvas website, Consider these factors: Consistency of Button Icons based on what it does, the placements of objects on the screen, and the use of space. (1 being ugly and 5 being aesthetic)", and "When using Canvas Website Has there been any issues you've encountered in the interface." These questions are constructed with the experience of the user in mind to see how much redesigning I should do and to the website's UI, what are the things that needs optimization, and to know if there are other struggles that user's experience that needs to be fixed.

The results of the questions are the following:

How long Have you been using Canvas website?

8 responses

- 1 year
- 2 years
- 3 years or more

87.5%

12.5%

How would you rate the UI of canvas website, Consider these factors: Consistency of Button Icons based on what it does, the placements of objects on the screen, and the use of space.
(1 being ugly and 5 being aesthetic)

8 responses

		3 (37.5%)	3 (37.5%)	
	2 (25%)			
0 (0%)				0 (0%)
1	2	3	4	5
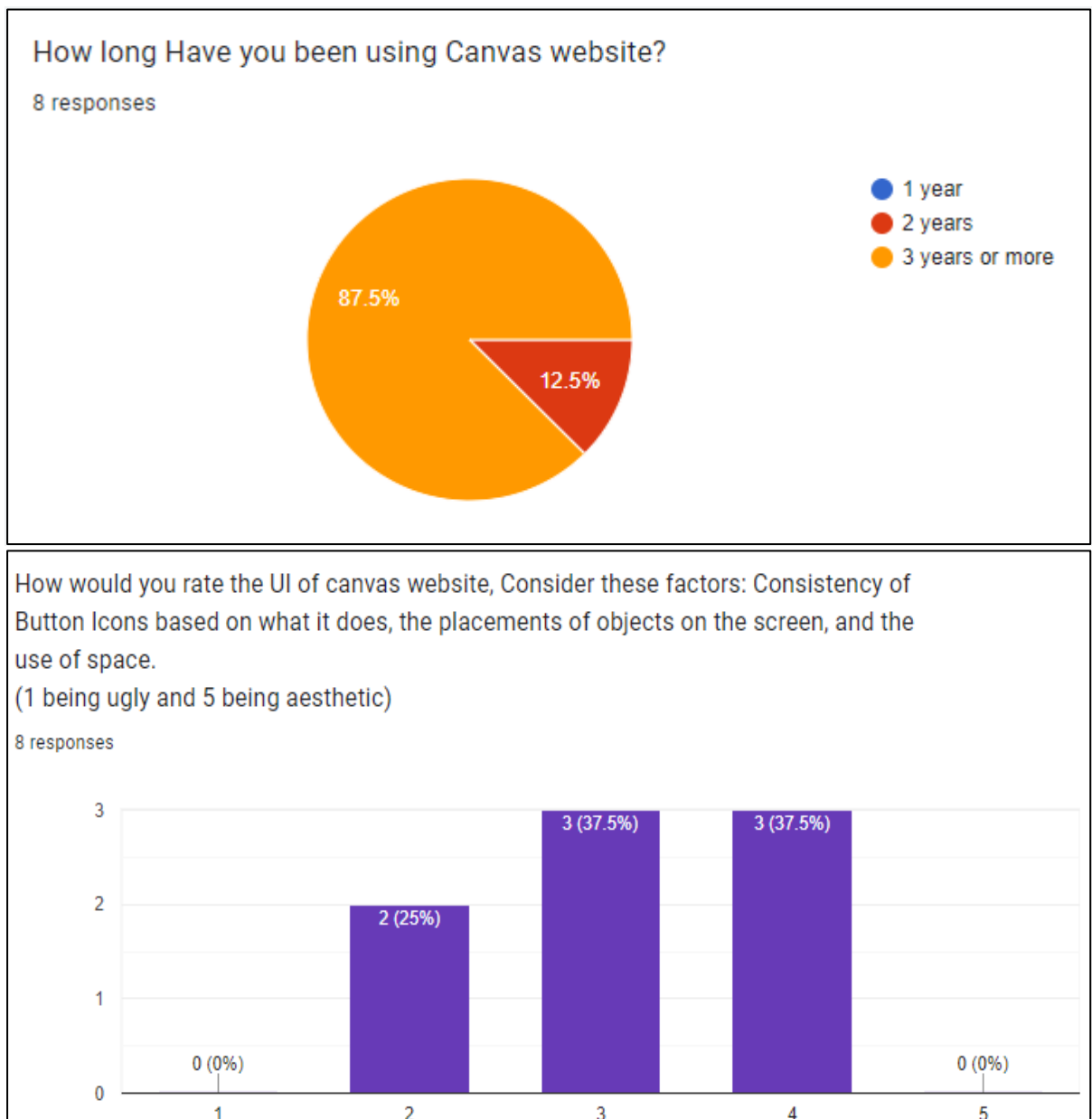
When using Canvas Website has there been any issues you've encountered in the interface (it can be anything even small details concerning UI).

8 responses

Yes, a lot. There are many visual bugs that can be seen and experience such as the student can edit their grades although it doesn't save

yes, lots of redundant directories such as the modules that also include the quizzes of the topics and lots of flaws such as editing the grades that can be manipulated by having an image as a submitting option

the navigation is not good and the interface design is not good

Delay in response time when clicking some menus in the interface

Yes, Elements take longer to load than before. There are also times when I feel overwhelmed by the amount of things on the screen.

The courses tab can be quite confusing since it only shows the text of the course, it can also be observed in other tabs.
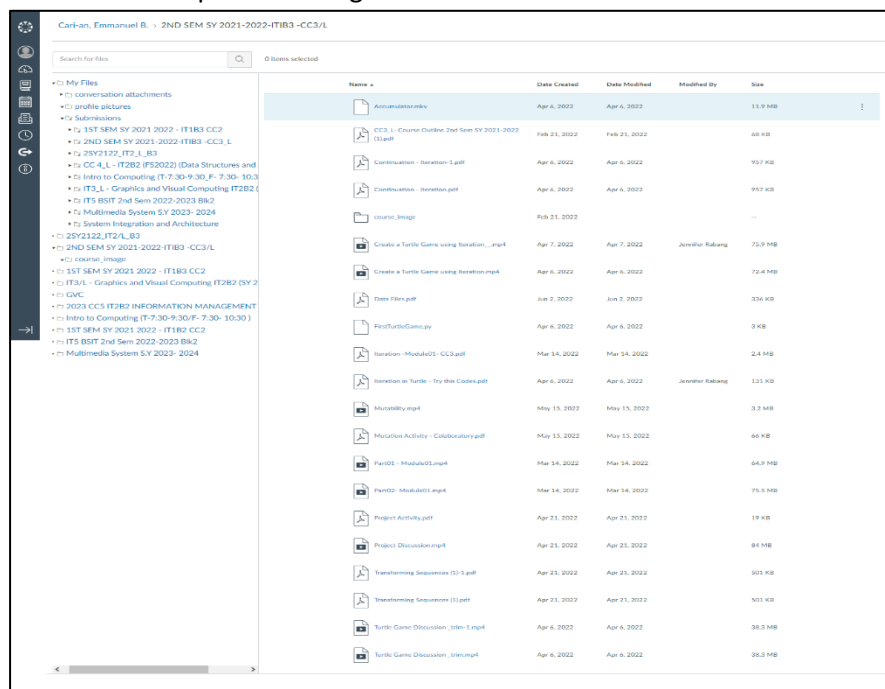
So far nothing much

There is but well mostly just because of poor internet connection because the base of the canvas is not in the philippines so ig it matters

- **Pain Points**
  1. Bugs that interferes with the students' ability to efficiently navigate the website's files.
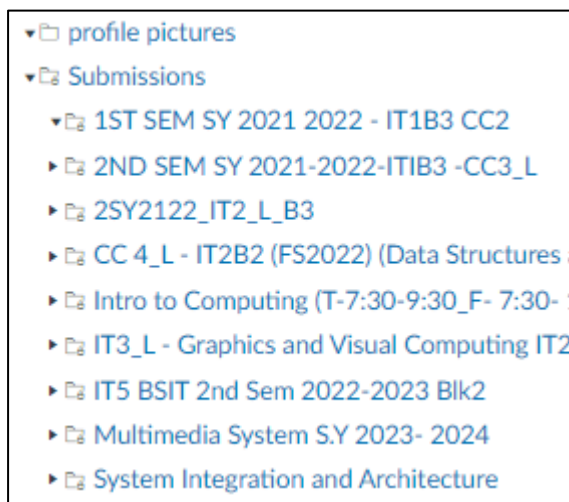   Here is an example of the Bug:

     This is the full interface of the files for the account you can access every resources in the published courses here.

▾ ☐ My Files
   ▸ ☐ conversation attachments
   ▾ ☐ profile pictures
   ▾ ☐ Submissions
      ▾ ☐ 1ST SEM SY 2021 2022 - IT1B3 CC2
      ▸ ☐ 2ND SEM SY 2021-2022-ITIB3 -CC3_L
      ▸ ☐ 2SY2122_IT2_L_B3
      ▸ ☐ CC 4_L - IT2B2 (FS2022) (Data Structure
      ▸ ☐ Intro to Computing (T-7:30-9:30_F- 7:30
      ▸ ☐ IT3_L - Graphics and Visual Computing IT
      ▸ ☐ IT5 BSIT 2nd Sem 2022-2023 Blk2
      ▸ ☐ Multimedia System S.Y 2023- 2024
      ▸ ☐ System Integration and Architecture

In this section of the interface you can see the dropdown indicators. If you click a certain dropdown it'll do its thing and show you the other folders it contains but if you click a folder's dropdown and it changes the orientation of the dropdown icon but with nothing to show like the profile pictures folder.

▾ ☐ profile pictures
   ▾ ☐ Submissions
      ▾ ☐ 1ST SEM SY 2021 2022 - IT1B3 CC2
      ▸ ☐ 2ND SEM SY 2021-2022-ITIB3 -CC3_L
      ▸ ☐ 2SY2122_IT2_L_B3
      ▸ ☐ CC 4_L - IT2B2 (FS2022) (Data Structures
      ▸ ☐ Intro to Computing (T-7:30-9:30_F- 7:30-
      ▸ ☐ IT3_L - Graphics and Visual Computing IT2
      ▸ ☐ IT5 BSIT 2nd Sem 2022-2023 Blk2
      ▸ ☐ Multimedia System S.Y 2023- 2024
   ▸ ☐ System Integration and Architecture

This is where the bug happens, now if you click the submission again it'll close but when you click it again it won't open. This will be frustrating if user encountered this and doesn't know the details of why this happened. I discovered this bug when I was trying to look for reviewers and this made me gave up looking for resources on the website.

2. Poor choice of colors and use of space for buttons that students frequently use like the ones in the courses tab the options are crammed tightly making the users eyes wander all over the page. As you can see in the screenshots the same colored text makes it hard for the eyes to find what to focus on.

3. The interface has a lot of redundancy this includes the dashboard and the courses tab in the navigation. The dashboard has a calendar that you can click to see the calendars UI and the navigation also has a calendar tab, now the calendar in the dashboard is redundant because the navigation tab is always there no matter what actions you do.

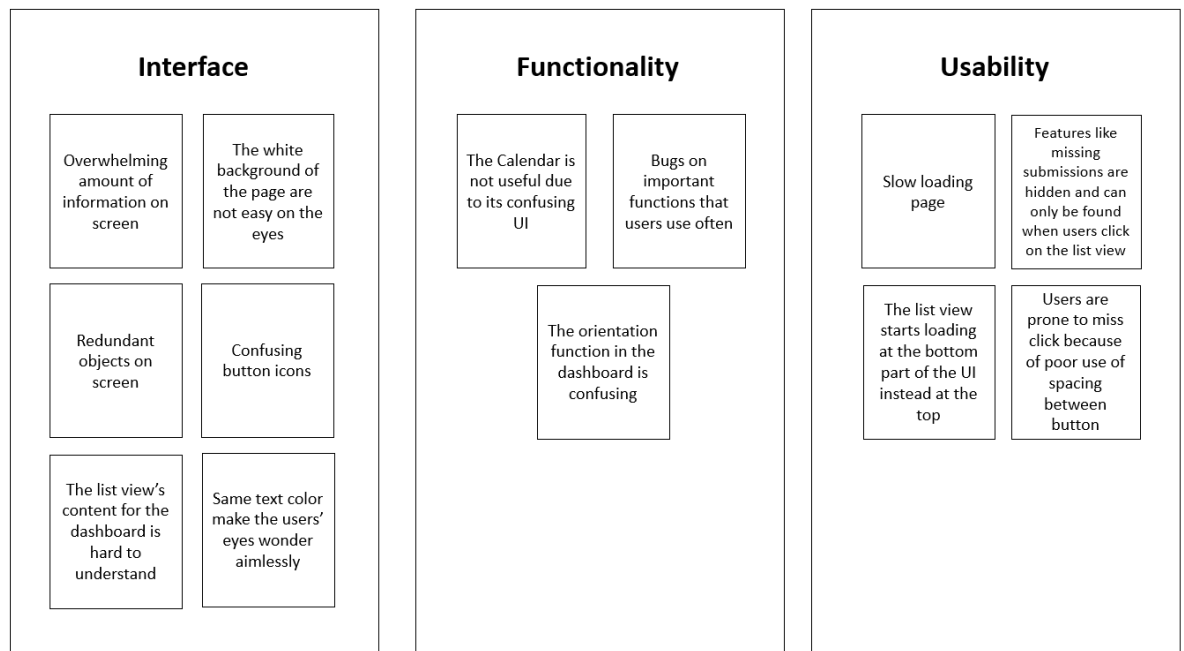4. Mis-clicks because of invisible borders at the courses tab here is the example:
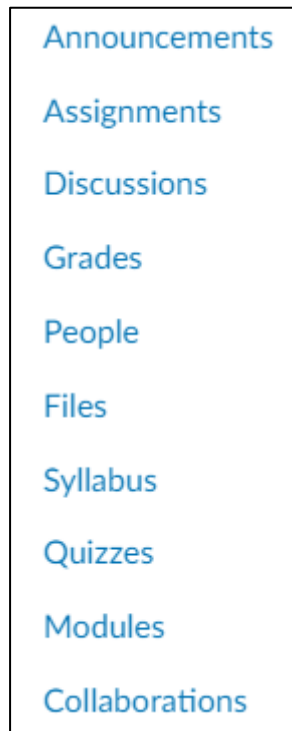
This is a screenshot of the navigation of the courses from clicking a course in the dashboard or the courses tab in the navigations. Here you can see that there are no borders and I have confirmed that even if you hover over the text only an underline will appear. That is ok to have an underline that indicates that you are hover over the button but the problem lies with the next screenshot
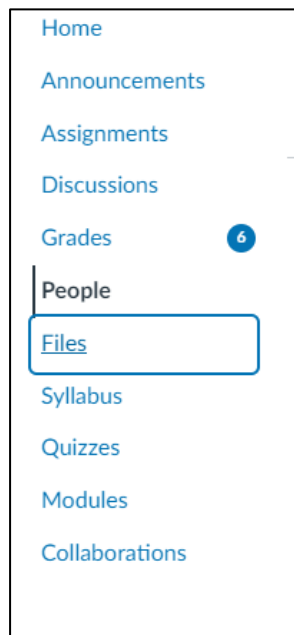
This border is only visible when you click the button. The border is big enough to barely touch the next button and the problem here is the next button also has a border as big as the previous button if they're all visible you'll see that borders will overlap, another problem is that the whole space inside the border is a link to another page which can be easily mis-clicked and with the added problem of slow loading it can be frustrating.

- **Affinity Mapping**

Interface	Functionality	Usability
Overwhelming amount of information on screen	The Calendar is not useful due to its confusing UI	Slow loading page
The white background of the page are not easy on the eyes	Bugs on important functions that users use often	Features like missing submissions are hidden and can only be found when users click on the list view
Redundant objects on screen	The orientation function in the dashboard is confusing	The list view starts loading at the bottom part of the UI instead at the top
Confusing button icons		Users are prone to miss click because of poor use of spacing between button
The list view's content for the dashboard is hard to understand		
Same text color make the users' eyes wonder aimlessly		

- **Personas**

Name: Jason X. Emel
Age: 21 years old
Sex: Male
Role: College Student
Goal: Become a Python Developer
Motivation: The cool and awesome things he can build once he gains the skill and tools needed for his goal.
Challenges: He wants to study his subjects but he wants the resources to be in one place for convenience.

- **Customer Journey Mapping**

Identifying Objectives	Looking for Canvas Website			Seeking Help	
Jason's Instructor told his class to review the topics of their class, the instructor also added that all the resources are posted on canvas.	Using Google to find website	Jason has to log in and he has an option to stay signed in	Jason is now in the canvas dashboard	Jason realizes that there is a support button at the middle right part of the page.	Jason sees a plethora of tutorials but they are for instructors not students
Feeling Happy because he knows that the resources are available	Feeling good because he finds the link immediately	Seems, easy enough also convenient, Jason doesn't have to log in every time he visits the website	Jason is having a hard time looking for resources, there is no common knowledge on where to look	Feeling relieved because Jason can search his dilemma	Jason is frustrated because he has to brute force finding the files and he does eventually but he feels inconvenience while locating because the support did not provide appropriate help, even if answer to his question was there it wasn't obvious enough.

Opportunities for Improvement	• A more obvious direct button for functions that users often use. • A categorized tutorial of information about what users have problems with. • Designing consistent icons so that users will know the functionality in one look.

Exer 4: Solution

- **Design Solutions**
  1. To solve the bug for the files, I have to make the dropdown icon not be independent when clicked instead of being able to click the dropdown and change its orientation, another way to solve this is to remove the icon if the folder is empty and only bring it back if the folder contains a file.
  2. As of now the vibrant blue color is used for the text color of most buttons or text that links to another page, this is not ok when it comes to doing a certain task like finding a specific thing in the website, your eyes wander because there is nothing to anchor your eyes into noticing something. A solution for this is color coding the courses based on what color you customize it in the dashboard also adding dark mode for the website is also an option in case that a user would spend a lot of time in the website, white and bright color can be hard on the eyes.
  3. Removing some unnecessary button and function in the dashboard is a must especially when it has its own tab in the navigation like the calendar. The courses tab should also be removed and replaced with a feature like task management, the reason for this is you already have the dashboard for the courses why would you need a courses tab in the navigation. Fixing the list view to make it look like a list view of the courses and not a confusing interface of task management.
  4. To avoid mis-clicks a proper amount of spacing is needed for each button of the website and all the hidden boarders should be removed and replaced with a hover effect of dimming the button or casting a shadow effect behind the button.
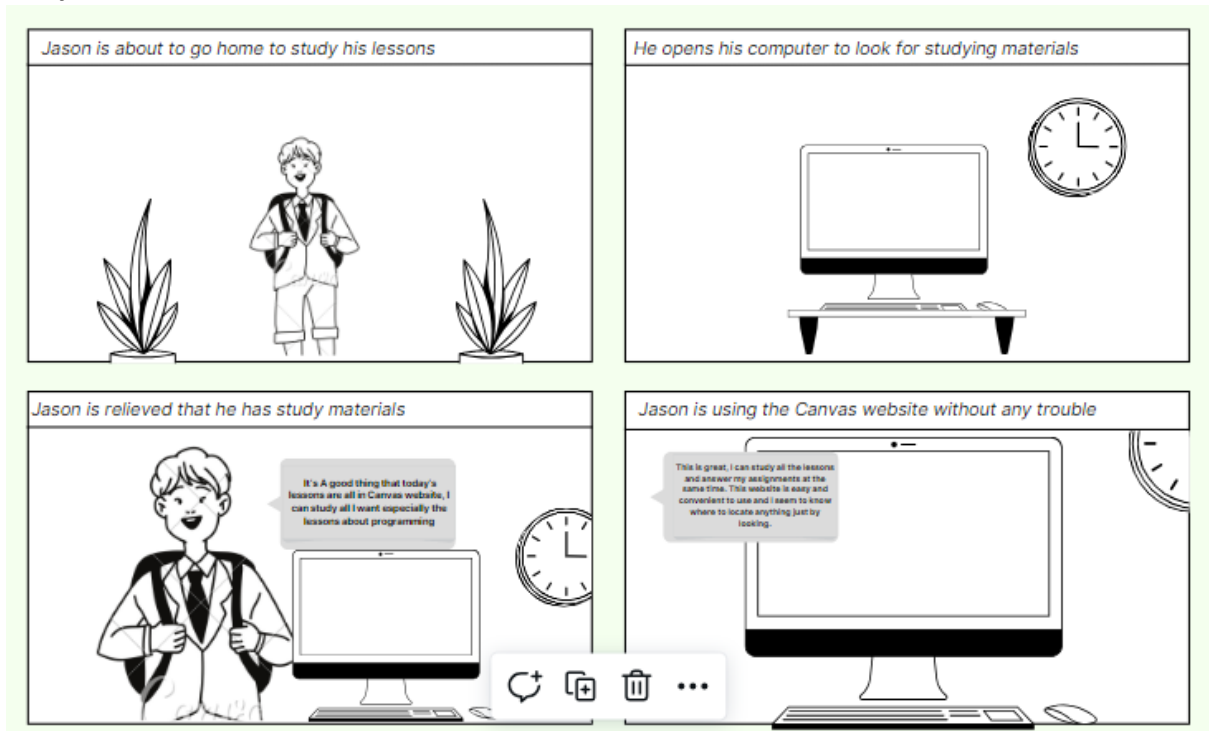
- **User Flow**
  Link to user flow
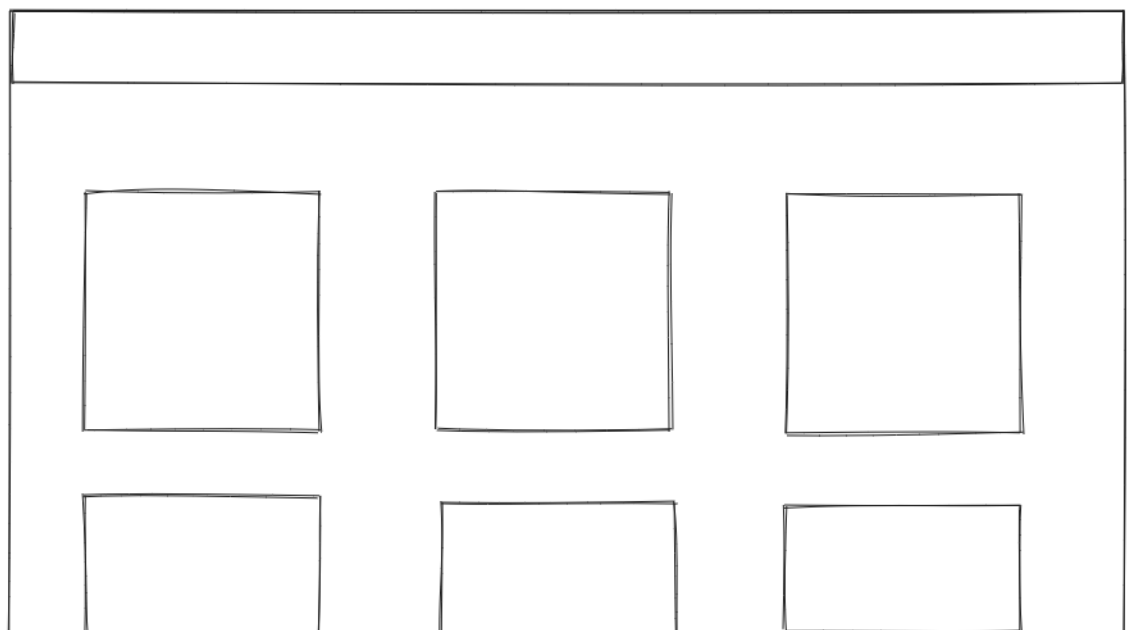 https://drive.google.com/drive/folders/1YoIRvzpiIOqa-7QbV41xdQeve0A9n8g1?usp=sharing
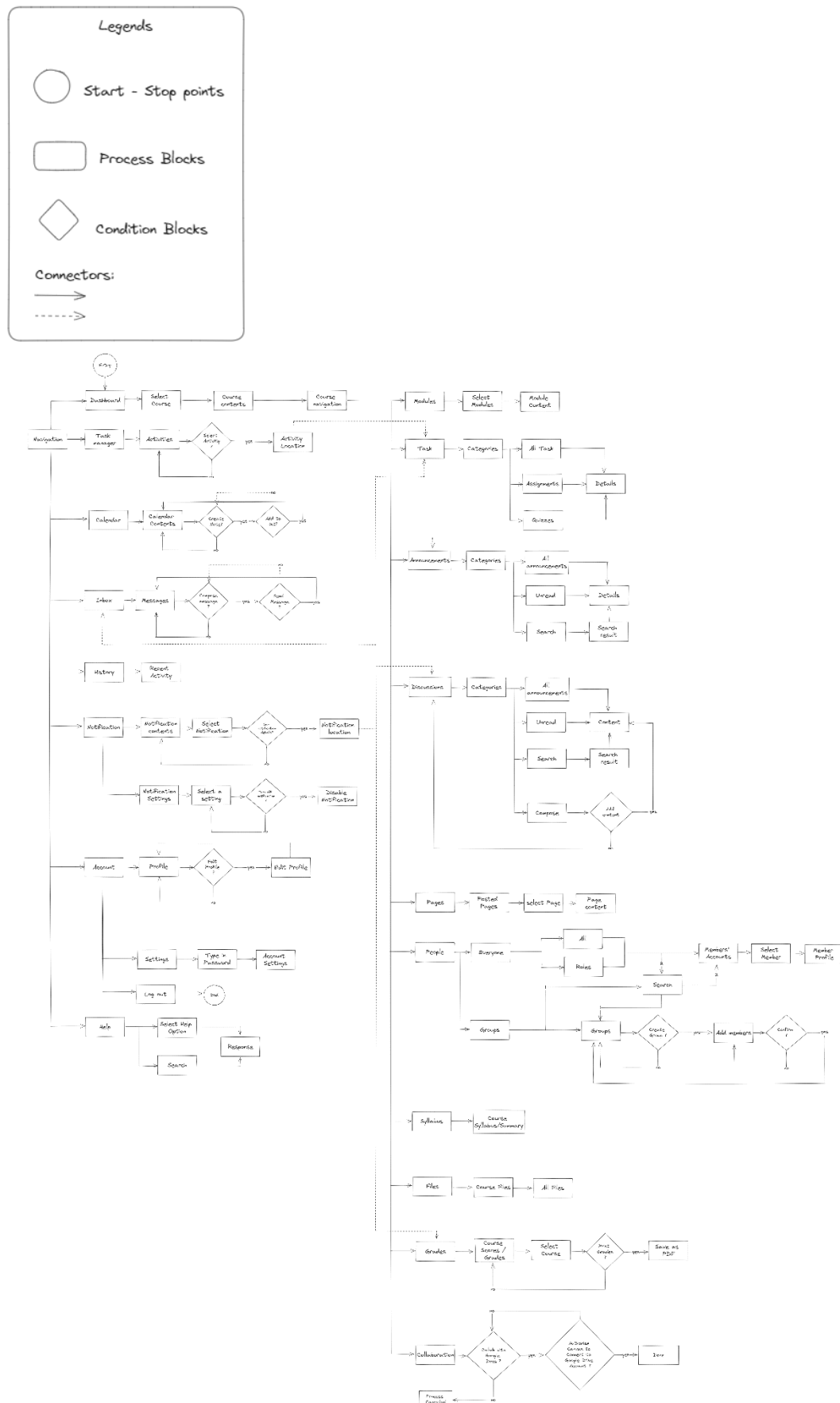
- **Storyboards**

- **Sketches**

Dashboard Card view

Dashboard List view

Task manager

Subject name

Assignment/quiz

Assignment/quiz

Subject name

Assignment/quiz

Subject name

Calendar / to do

Todo

Date

| Note/Task |

Date

| Note/Task |
| Note/Task |
| Note/Task |

Calendar

Files

Files

Account Files

| Account Files |
| Subject 1 Files |
| Subject 2 Files |

DropBox

Drag and Drop Files here

| Choose File | filename.txt | Upload |

Add another...

- **Wireframes**
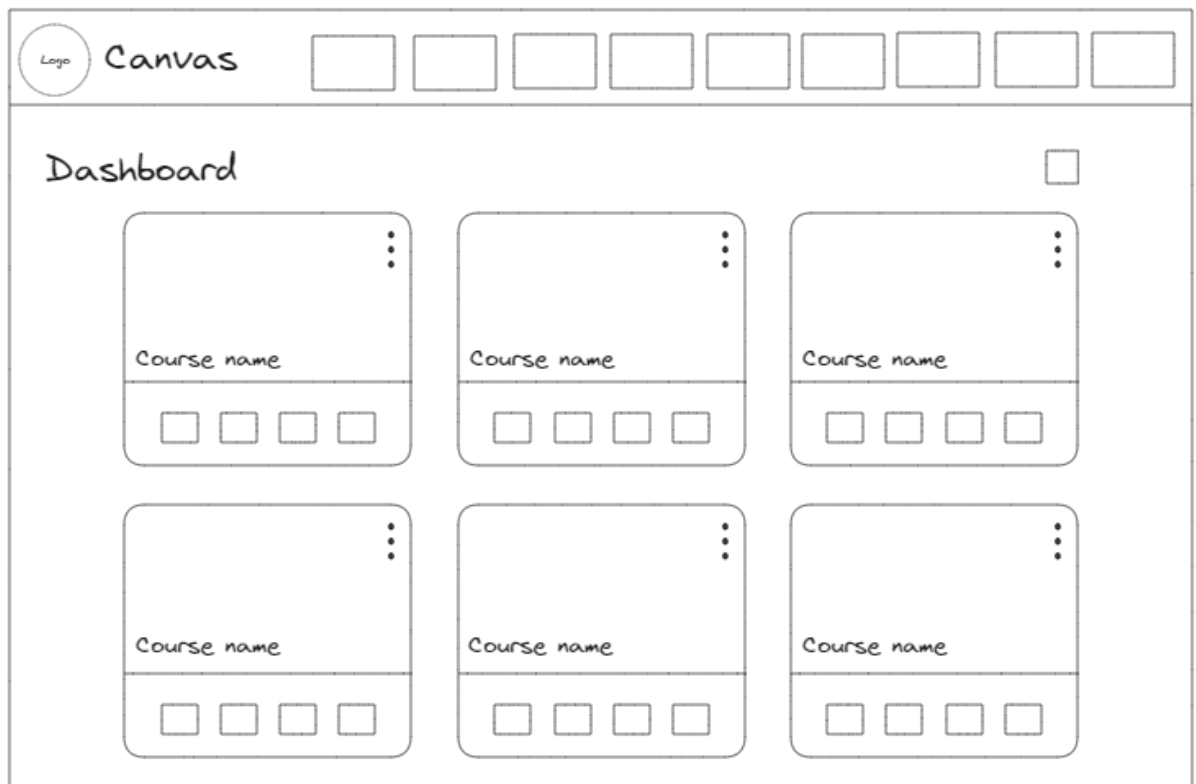
Logo Canvas   ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Task Manager

| Order by | Category | Search task |

Course name   ▽

Date Posted

| Icon | Task type | Task name | | Deadline | ⋮ |

Date Posted

| Icon | Task type | Task name | | Deadline | ⋮ |

Course name   △

Course name   △

Logo Canvas   ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

File Manager

| All Files | Search File |

Folder   Current Folder Name

| Account folder   ▽ | Files

| ▽ | ┌ - - - - - - - - - - - - - - - - - ┐
                                DropBox

| | Drag and Drop Files here
                                └ - - - - - - - - - - - - - - - - - ┘
| Current Folder |

| Course Folder   ▽ | | Choose File | filename.txt | Upload |

| Course Folder   ▽ | Add another...

| Course Folder   ▽ |

Logo **Canvas**

File Manager > Course name

| Course | Search File |

Folder

Current Folder Name

| Course folder ▽ |

Files

| Icon | File_name.mp3 | | File type | Date Posted | Modified by | File size |
| Icon | File_name.mp3 | | File type | Date Posted | Modified by | File size |

Logo **Canvas**

Calendar

To do

+

- **Visual UI Design**

  - One of the pain points were the bugs that made the functionality of the folders in the files glitch, I decided that instead of having dropdown for every folder I should remove the drop downs on folders that only contain files or empty folders and dropdown icons can only be seen on folders that contain folders inside them. Also so that it is easier for the users I made the names of the folders color coded to their respective course.

  - For the colors I reduce the number of buttons that are colored blue so that it is easier on the eyes of the users and I simplified some features to reduce redundancy.

  - By having visible subtle borders with appropriate spaces in between solves the issue with mis-clicks thus hopefully improving user satisfaction when using the website.

- **Design Prototype**
  Link to the design
  https://drive.google.com/drive/folders/1-tywzP_hHS9GiY1bjdSItu8xs3avPnNL?usp=sharing
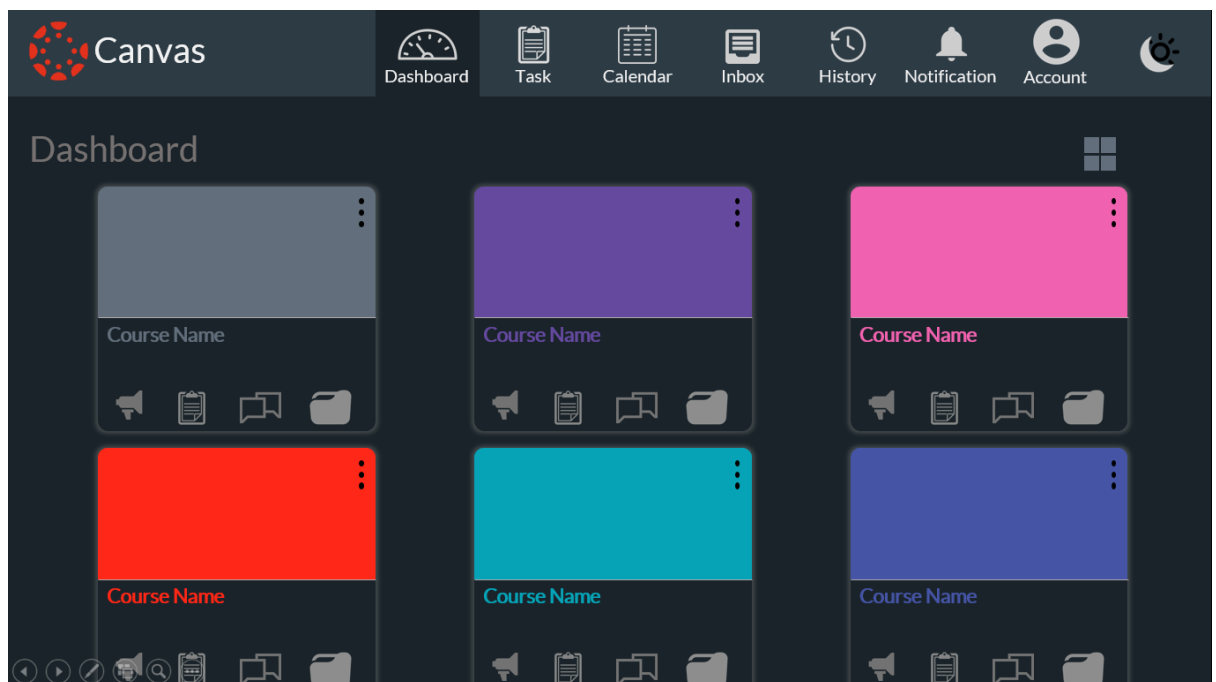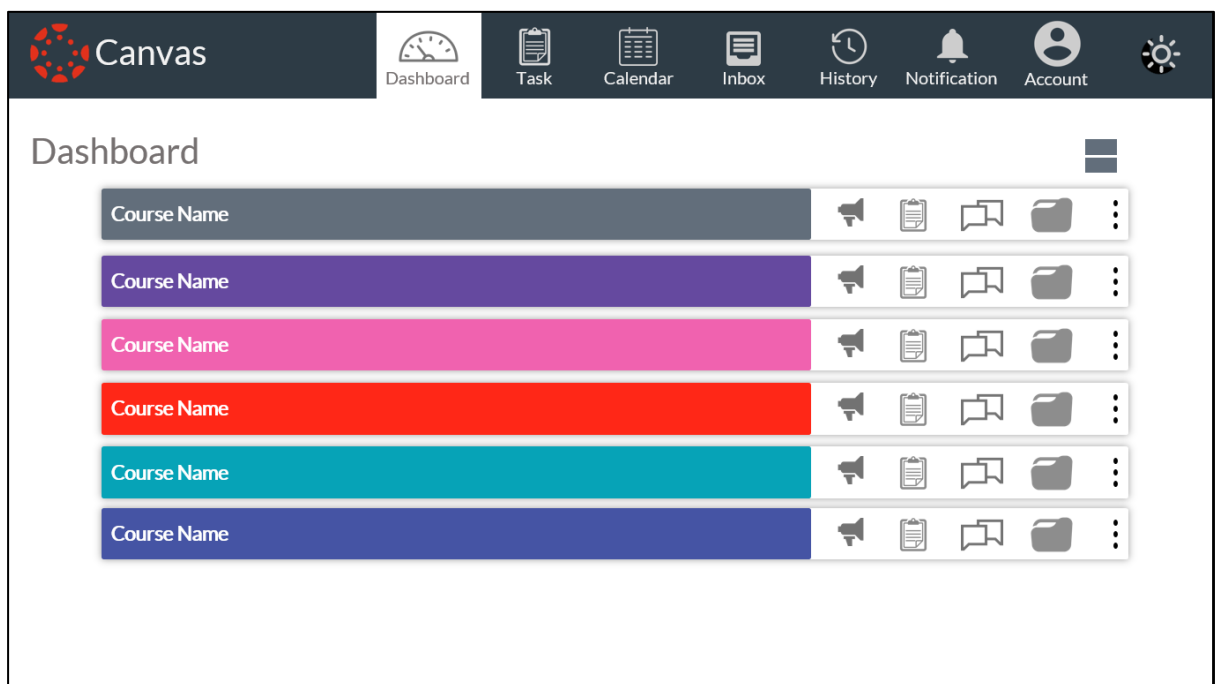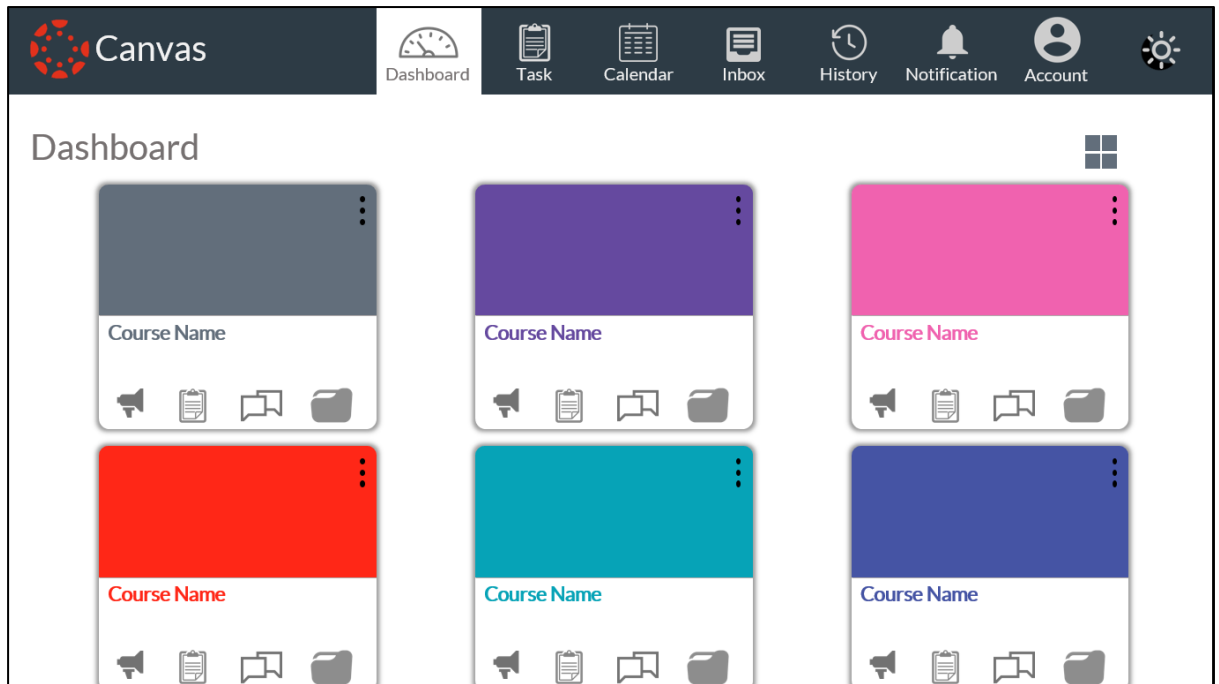
Canvas

Dashboard | Task | Calendar | Inbox | History | Notification | Account

Task Manager

Order by △ | All task △ | Search Task 🔍

Course Name △

Posted on December 16, 2023 △

| 🚀 Quiz | Quiz Name | ◼ Closed | Deadline: January 1, 2024 | ⋮ |
| 🚀 Quiz | Quiz_2 Name | ⊘ Closed | Deadline: December 19, 2023 | ⋮ |

Posted on December 17, 2023 ▽

Course Name ▽

Canvas

Dashboard | Task | Calendar | Inbox | History | Notification | Account

Calendar

To do

Sun	Mon	Tue	Wed	Thu	Fri	Sat

＋

Canvas

| Dashboard | Task | Calendar | Inbox | History | Notification | Account |

Account > Files

All Files ▲ Search Files 🔍

Folder 2 Files

| Account Folder ▼ |

Folder 1

Folder 2

| Course 1 Folder ▼ |

| Course 2 Folder ▼ |

This Folder is empty

Drop Box

Drag and Drop Files here

Canvas

| Dashboard | Task | Calendar | Inbox | History | Notification | Account |

Dashboard > Course 1 > Files

All Files ▲ Search Files 🔍

Course 1 Files

| Course 1 Folder ▲ |

Course 1 Subfolder

File name	File type	Date Posted	Date Modified	File size
🖻				
PDF				

BS Information Technology: *Prepared by: Demy Dizon*

PART II

Comments/Suggestions

I have asked 4 people and the feedback they gave were rather positive leaning on the fact that the UI of the reworked design of canvas website is easier to understand and there are positive reaction on the added feature of the task manager where responses of the people asked are the same they said that it was convenient because they can now see all their task in one easy to access place. One of the feedbacks said that the UI is now more user-friendly and beginner-friendly because of the fact that the UI is now easier to understand without losing the aesthetic of the old website.

Results /Conclusion

As I presented my case study to the people that I need feedback from, I walked them through on the pain points of the case study and what path I took to solve this problems. The prototype is somewhat a success for the reason that feedbacks are mostly positive. The key learnings that I found is that convenience takes priority followed by functionality and aesthetics. The reason for this order is that when it comes to website like Canvas, students wants the convenience of accessing what they want in an easy manner as well as the option to access everything all at once or to access things based on their category. Functionality should be as important as the convenience because convenience can only be achieved if it does what it's supposed to do. Lastly aesthetic is there to make certain function be more noticeable. The next step for this project is refining, refining the things that can be improve.

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