

Project Proposal

StudySync Web Extension

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## 1 Introduction

Coursera is a global platform specializing in online learning and career development. The platform allows millions of learners to grow, learn, and develop industry-standard skills through partnerships with universities, businesses, and governments. It has affected each of the author's lives via the Bachelor of Computer Science offered in collaboration with the University of London and allows a further 113 million learners the opportunity to cement lifelong learning as an integral part of their lives.

As avid users of the Coursera platform, we see an opportunity to enhance the platform via a browser extension. The overall goal of the extension is to aid in implementing and improving BSc student's successful study skills. The extension will allow students to limit distractions by implementing a whitelist website blocker. It will also enable users to optimize their study patterns with analytics driven by a time tracker.

The tool's value within the given market space, design and planned implementation have been thoroughly refined through our team's quality research, planning and iteration to ensure the tool meets the needs of our market audience.

## 2 Vision and Scope

### 2.1 Project Requirements

#### 2.1.1 Project Opportunity

Coursera serves over 113 million learners worldwide, offering a large demographic to tap into. While building a web extension that caters to all of these students is unreasonable, we have direct access to around 10,000 unique learners currently enrolled in the same program as the StudySync team. These users display constant frustration with online distractions and the need for study habit tools. Our preliminary questionnaire confirms the desire for a tool of this nature. Users are frequently distracted by unrelated websites, need help to focus on their Coursera studies and try to implement a wide array of technologies to mitigate this problem. They also see value in a time tracker, which helps display their study habits' effectiveness by semester. The complete questionnaire can be viewed in the appendix.

#### How easy is it for you to limit distractions while studying?

15 responses

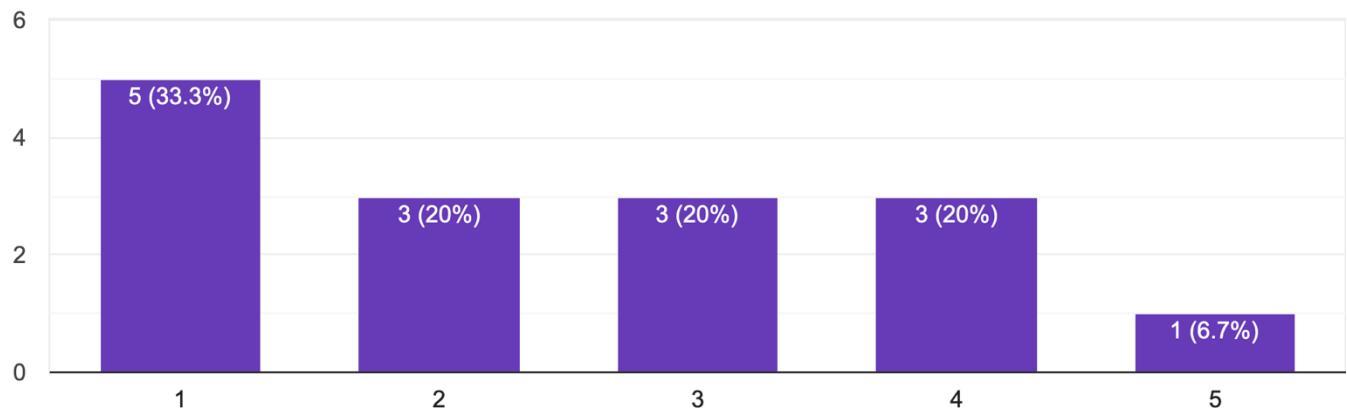


Figure 1: Questionnaire responses regarding limiting distractions while studying on Coursera. Scale: 1 - very hard to limit, 5 - very easy to limit.

A comparative analysis follows to see the current market solutions and how StudySync will fit within this ecosystem. In brief, the current website blockers perform well and provide many functions to increase the

student's productivity. However, they all require high upfront setup costs, aren't built directly for Coursera, and can ask for payment to be of actual use. The time trackers also suffer from the same issues the website blockers do. The lack of Coursera integration is apparent here, as users cannot accurately understand their study time per course or task. The high barrier to entry for these solutions also limits the number of students who will put in the effort to solve this problem. With this in mind, combined with the results from our initial user research, we see this as an excellent opportunity to produce a fit-for-purpose web extension with a low barrier to entry.

The web extension would limit the barrier to entry by providing base settings that integrate well with the average student's desired settings. It would also be a free web extension. Focusing on Coursera integration would provide a relevant, accurate picture of study habits on the platform. The web blocker would be a whitelist as opposed to a blacklist which would limit the decisions needed by the user. These options would combine to provide the best productivity tool for students to pair with their Coursera studies. The direct access to the degree students is an excellent testing ground to get an MVP product tested, produced and published.

### 2.1.2 Comparative Evaluation

#### 2.1.2.1 *Limit*

Limit is a web extension which limits the time you can spend on distracting websites, offering a solution to PP-2. It is a lightweight tool that allows users to input problematic websites and set daily time limits. Limit is built on a blacklist in which the onus is on the user to find and declare websites which are problematic to their productivity time.

## Limit is Enabled

[Disable Limit](#)

[Open Settings](#)

Figure 2: Limit dropdown menu.

Limit helps pinpoint desirable traits for an app of this nature. The UI is simple, with clear, interactive elements and visual distinction to help guide the user through its functionality. The tool does not contain bloatware or unnecessary functionality. It also indicates Limit takes privacy seriously, and the data used by the application is stored locally on the user's machine without being sent externally. The lack of a paywall also helps user uptake and lowers the barrier to entry.

The screenshot shows the 'Limit settings' page. At the top, there's a green header bar with a circular icon and the text 'Limit settings'. Below it, a grey bar says 'Need more customization? Get [Freedom](#)'. The main area has a light grey background. On the left, there's a 'Show timer' section with a toggle switch that is turned on. Below it is an 'Add website' section with a text input field and a 'Add Website' button. To the right, under 'Daily website limits', there's a list of websites with their respective time limits. Each row consists of a checked checkbox, the website name, a dropdown menu set to '25', and a 'min.' label followed by a clock icon. The websites listed are: facebook.com, instagram.com, youtube.com, twitter.com, cnn.com, reddit.com, nytimes.com, amazon.com, netflix.com, and ebay.com.

Website	Time Limit
facebook.com	25 min.
instagram.com	25 min.
youtube.com	25 min.
twitter.com	25 min.
cnn.com	25 min.
reddit.com	25 min.
nytimes.com	25 min.
amazon.com	25 min.
netflix.com	25 min.
ebay.com	25 min.

Figure 3: Limit settings page.

Limit offers a solution to our project problem PP-2 by allowing users to limit time spent on websites they see as distracting. However, when framed within our desired user class, we don't see it as a good fit.

To start, the web extension is a blacklist which comes with a high overhead cost to set up correctly. Users must document all websites they see as problematic and write them into the extension. Meanwhile, StudySync would be a whitelist that removes this overhead time by stopping everything by default. The user would then have quick access to add URLs to the whitelist.

Furthermore, the extension still allows access to these problematic sites for a limited time. Users can get engulfed in a task on a given website. For example, a user is writing a comment to a Facebook post, and Limit jumps in and says the site is now blocked as they have spent too much time on Facebook. Users can get frustrated and turn off the extension to complete their comment. The user then forgets to enable the extension, and their study sessions are again at the mercy of distracting websites.

#### 2.1.2.2 Web Blocker

Web Blocker is a web extension which serves as a simple blacklist for distracting websites, offering a solution to PP-2. The extension redirects users to a specified URL when they try to navigate to a blacklisted URL. Like Limit, it puts the onus on the user to find and document problematic websites for the extension to block.

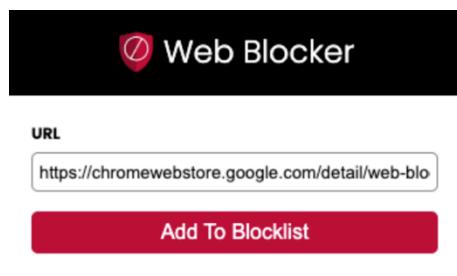
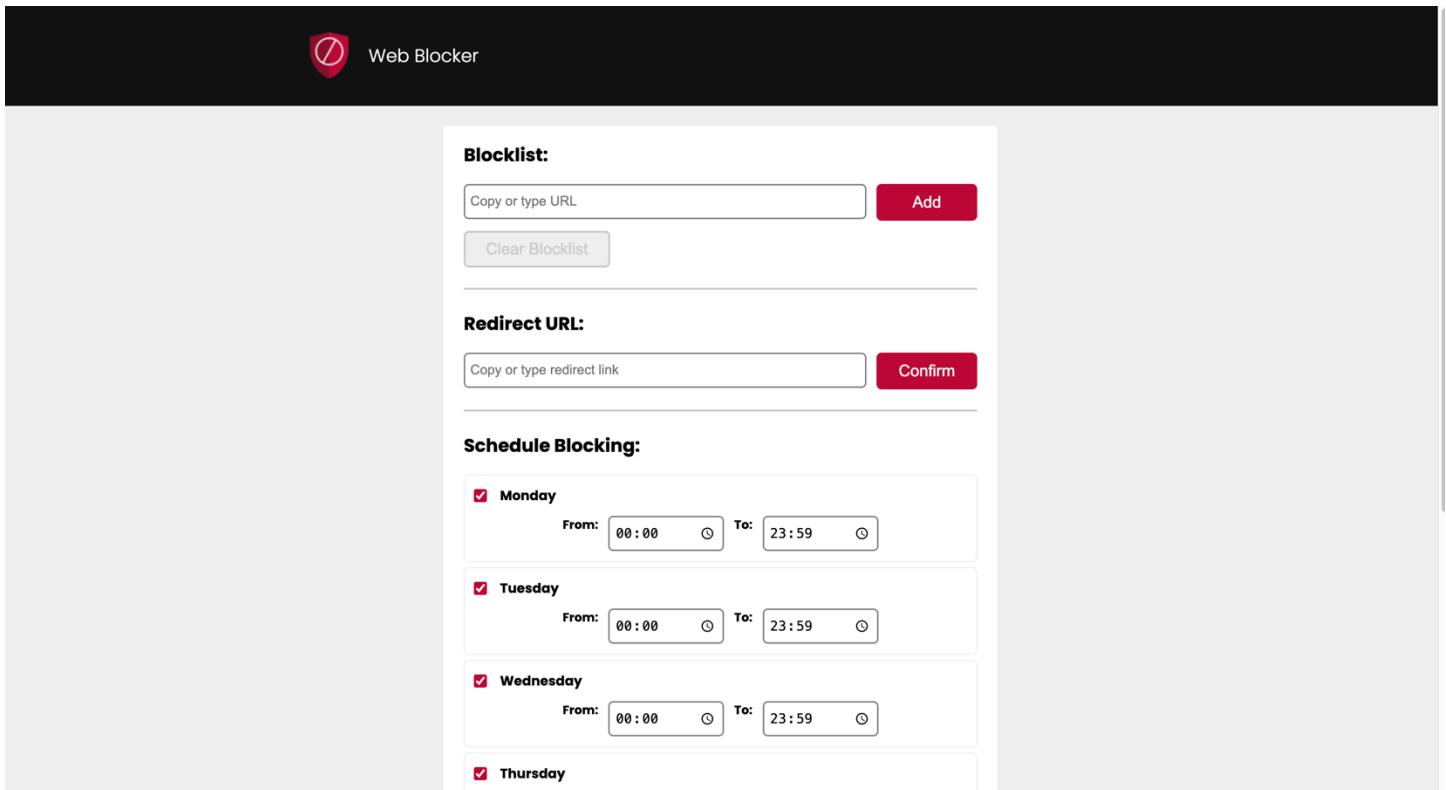


Figure 4: Web Blocker dropdown menu.

Web Blocker provides all of its functionality with very little user interaction. The user does not need to go through complicated workflows to block pages. The extension does not contain bloatware and contains fit-for-purpose functionality. Much like Limit, the extension would allow a user to get quickly acquainted with its functionality—a vital aspect of these extensions. The redirect option is also a unique solution for blocking the page, but it could lead to confusion as no alert is provided when the user is redirected. Web Blocker also does not hide behind a paywall, which we see as a necessity for any web extension of this kind.



*Figure 5: Web Blocker settings page.*

Web Blocker performs well as a blacklist web extension. However, much like Limit, its broad nature and high setup costs leave much to be desired. The user will again have to find and list all problematic pages in the extension. The extension also does not offer a simple on/off toggle to disable the blocker. Users can switch productivity mindsets, and with this extension, it would need to be entirely turned off to allow for that switch. We don't see this as a good solution, as the extension could be forgotten once disabled.

### 2.1.2.3 WebWork

WebWork is a full-fledged productivity tool which allows companies to track and monitor employee productivity and automate payroll tasks. The web extension fits within PP-3. While the features offered by the extension are geared more toward employee and company productivity, some features here can be attractive to our target market.

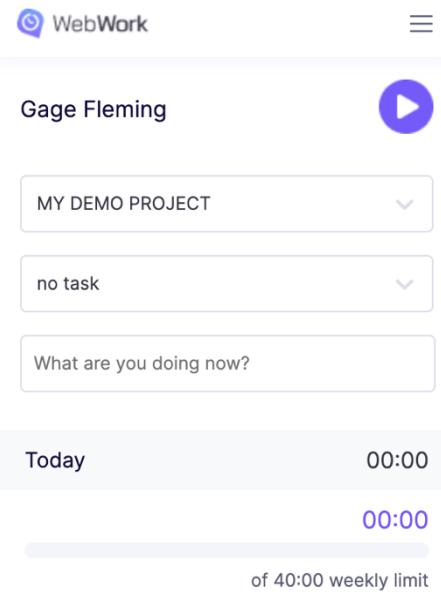


Figure 6: Webwork dropdown menu.

The application allows users or managers to set a weekly limit to the work that can be completed by the individual in question. The individual can then choose what project, task and information they are working on by inputting it into the extension. WebWork then processes this information, allowing users to see their productivity or use it for reports or payroll.

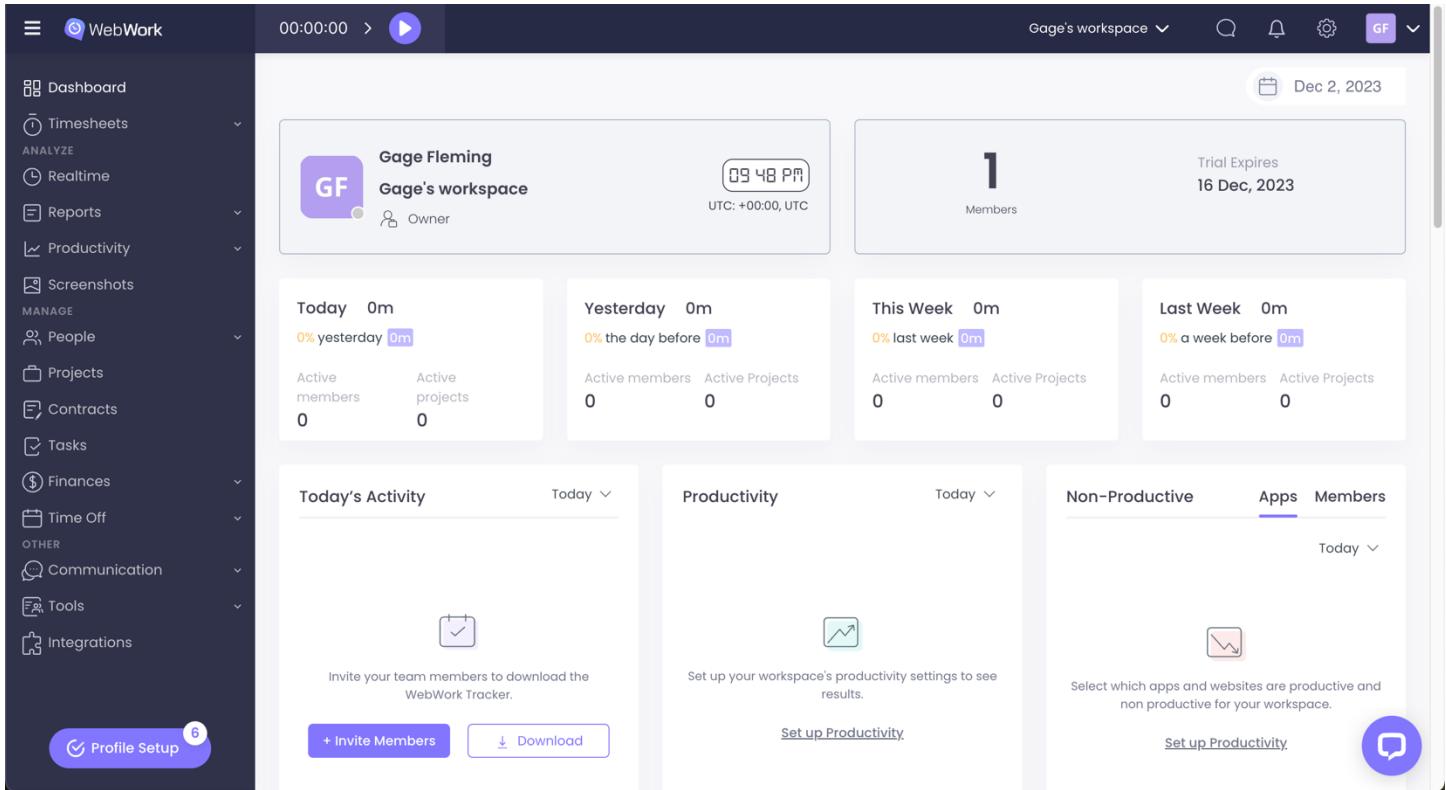


Figure 7: Webwork dashboard.

The simple design of the dropdown menu and task breakdown are great. Users should be able to quickly enter the information they need and be guided toward the correct input area. The many reports and data visuals are also a nice touch.

When framed within our current market, we see WebWork as an overfit solution for our users. It's locked behind a paywall, requires a user account, which is very difficult to close, and has a high barrier to entry with all the different options, reports and visuals. Our target market does not want a lot of setup costs, and the complexity of this tool does not lend itself well to that mindset. The tool also asks for a high degree of invasion regarding a user's privacy. Many students are privacy-focused, which can be an off-putting ask. While this tool seems an excellent fit for companies within our problem space, it doesn't correctly solve PP-3 for our market demographic.

#### 2.1.2.4 Web Activity Time Tracker

Web Activity Time Tracker is a web extension that tracks users' time spent on websites and stores data for visualizations and output. The extension also allows users to limit time spent on specific websites through a blacklist. The extension provides a solution to both PP-2 and PP-3.

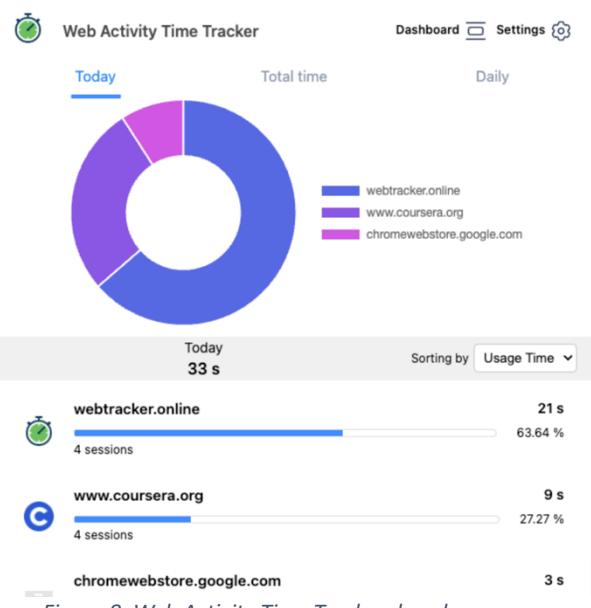


Figure 8: Web Activity Time Tracker dropdown menu.

The extension is of quality build, simple in design, functionally sound, and provides instant feedback to users. The visualizations are also well thought out and allow the user to make quick adjustments if they notice a little too much time is spent on a particular website through the pie chart. The extra options enable power users to flesh out the tool further and narrow in on a quality time tracker. This extension has a lot of positive points, and how it displays itself lowers the barrier for entry and provides clear I/O feedback.

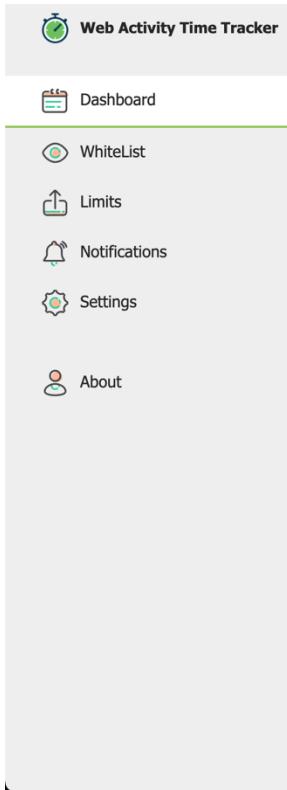


Figure 9: Web Activity Time Tracker dashboard.

While this tool fits the best within our problem area so far, it still has some items that could be improved for our user demographic. To start, the extension tracks pages based on the overall homepage URL, not the specific page the user is on. Therefore, when studying on Coursera, the user is considered to be on Coursera.org at all points. This means the user could only see their total time spent on the site instead of breaking it down by course and task, which fails to meet the user's expectations for a tool that enables Coursera time tracking. The tool also fails in blocking websites as it is like some extensions before it: a limiter instead of a whitelist, which we see as the inferior solution to limiting distracting websites.

#### 2.1.2.5 Blocksite

Blocksite is a web extension which enables website blocking via white or blacklists. It also provides some peripheral information, such as light site tracking. All this provides a solution to PP-2 and PP-3. The

addition of a whitelist is a great tool which StudySync thinks is the best solution for website blocking.

Unfortunately, getting actual functionality out of the extension involves a paywall.

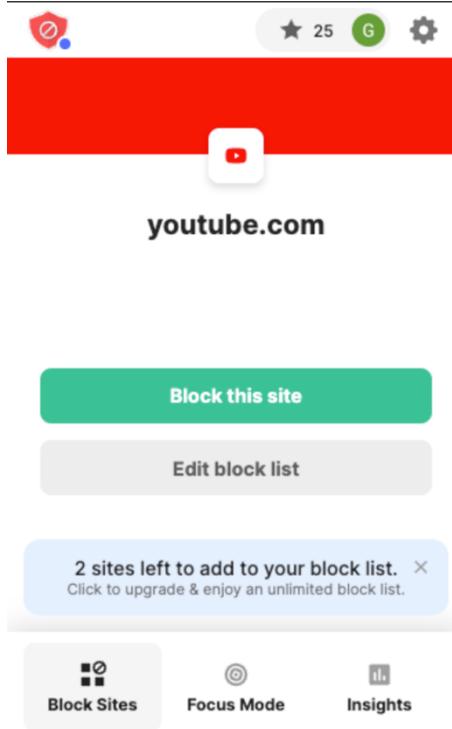


Figure 10: Blocklist dropdown menu.

The extension is straightforward and functionally sound. The ease with which URLs are added to the blocklist and the feedback the extension provides users allows for a quality tool. The responsive feedback to user actions is also a plus for the extension. Unfortunately, we cannot get an accurate comparison for this extension due to the paywall, and that is the extension's biggest downfall. Free users can only block 3 URLs, which does not meet our target users' needs. Having the main functionality of your application stuck behind a paywall will not attract this demographic. This extension is an excellent indication of where StudySync can go with simple functionality and well-built UI. But highlights the need to maintain free access.

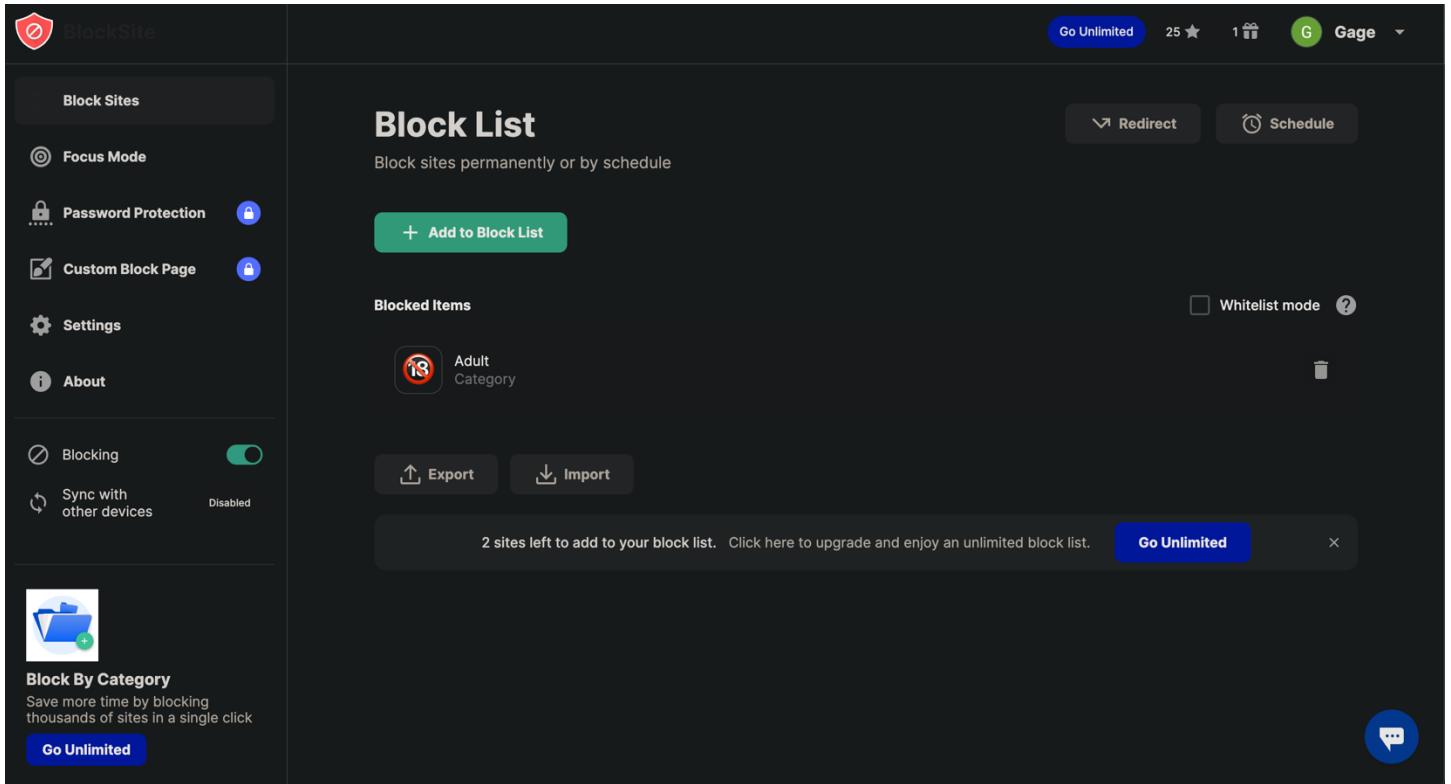


Figure 11: Blocklist dashboard.

### 2.1.2.6 Toggl

Toggl is a time-tracking web extension, the most well-known application in web browser-based time-tracking solutions. It provides an all-in-one solution for time tracking for all digital tasks. The tool is a task tracker mainly used by professionals who must bill their time. However, it is so full of features that many different demographics use the tool to help increase their productivity. It provides a solution to PP-3.

It allows users to build a picture of the time they spend on a given task. They can categorize activities based on their current project, and power users can further adjust minor details to get genuinely accurate time tracking. The tool also lets users output their time to reports or analytic dashboards.

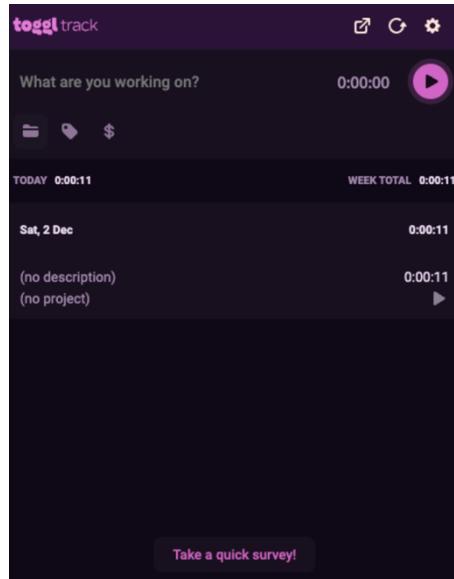


Figure 12: Toggl dropdown menu.

The extension has consistent branding and is great for power users. However, we do see it as an overfit for our defined problems. Power users may be able to get great functionality out of the application, but it requires a high cost to set up. The paywall also limits uptake as our market demographic prefers free-to-access extensions instead of ones behind a paywall.

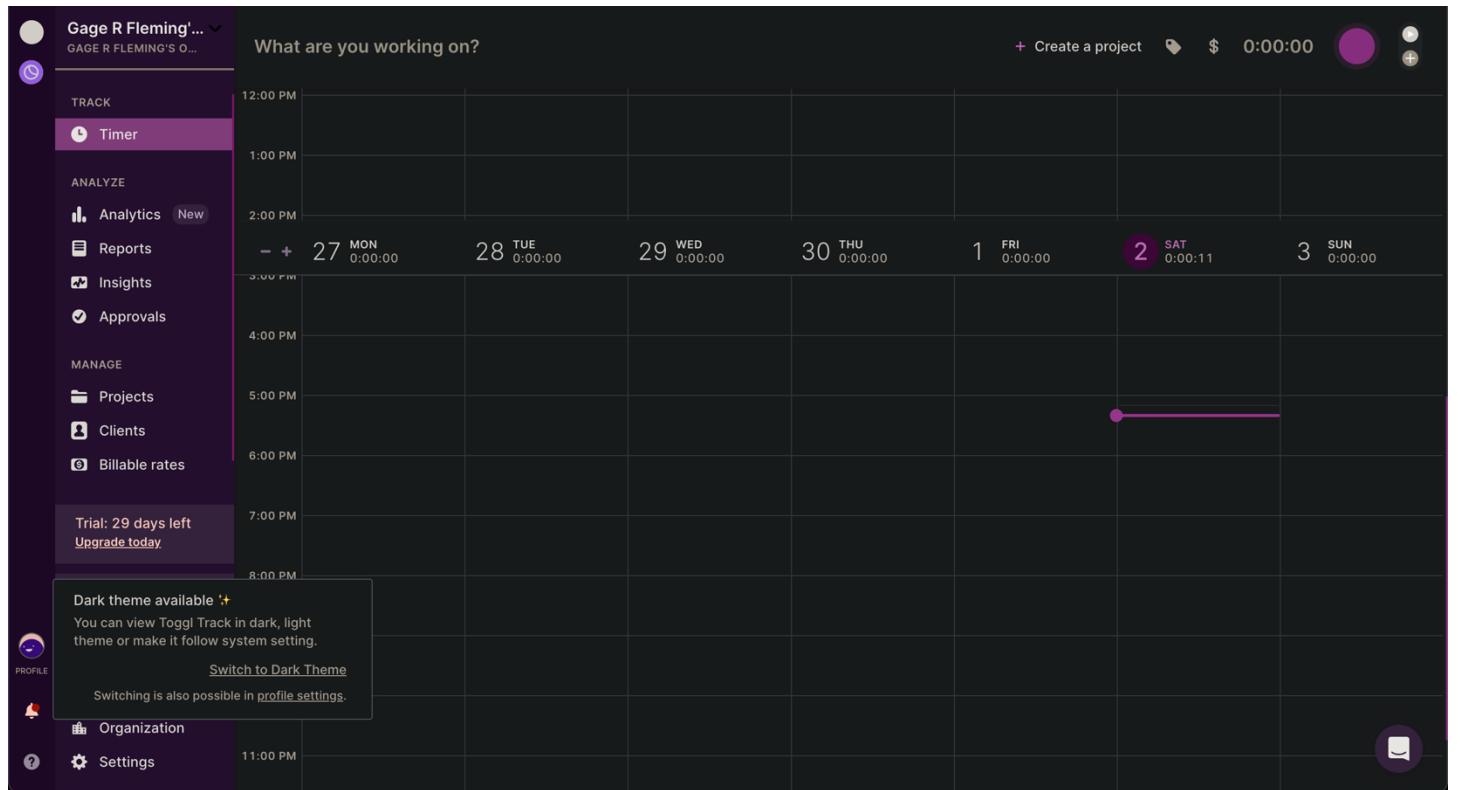


Figure 13: Toggl dashboard.

### 2.1.2.7 STEEPLE

#### 2.1.2.7.1 Social

StudySync is focused on the demographic pertaining to the Bachelor of Computer Science offered on Coursera in partnership with the University of London. Within this demographic, many individuals exist, ranging from industry professionals to recent High School Graduates, all hailing from different countries. It's important to note that English is the language the degree is taught in.

#### 2.1.2.7.2 Technological

The extension is being produced for the Google Chrome web browser. Their policies and standards must be followed to ensure that StudySync is compatible with the browser. Current extension trends must also be considered to ensure our UI and functionality meet users' assumptions.

#### 2.1.2.7.3 Economical

The extension is free and has no direct economic consequences to consider.

#### 2.1.2.7.4 Environmental

Digital technology accounts for 3-4 % of the world's greenhouse gas emissions. It is vital to ensure efficient code and data storage are implemented correctly to reduce any carbon footprint StudySync would have on the environment.

#### 2.1.2.7.5 Political

Because the degree is offered within the UK, StudySync needs to follow current UK legislation and laws regarding digital services. Keeping in standard with these rules will enable the team to be reasonably sure that our extension is compliant globally.

#### 2.1.2.7.6 Legal

As mentioned above, StudySync must abide by UK and international law. However, due to the nature of the extension, these areas will be easy to navigate. For example, we are not storing data in a remote database for updates. Instead, it will be stored locally, with strict security practices. StudySync will need to focus more on the Coursera and University of London regulations and terms of use. Coursera has a rigorous data scraping policy. Therefore, we need to ensure how the extension collects data aligns with their terms of use.

#### 2.1.2.7.7 Ethical

The web extension is innocuous when considered within ethical ramifications. Helping students study better is a morally solid area. Combining this with a reliable development process and user involvement will ensure ethical consideration stays at the forefront.

#### 2.1.2.8 SWOT

##### 2.1.2.8.1 Strengths

StudySync's strengths will lie in its integration with and development for the Coursera platform. As mentioned above, many tools exist to enhance a student's productivity. However, none have successfully improved the Coursera study experience to a level that meets our target demographic desires. The current

web extensions don't allow for accurate Coursera time tracking. The web blockers are mostly all blacklists or limiters; No quality whitelist exists for students to use.

StudySync will also offer a low barrier for entry by working "out of the box" and only requiring optional further work from the user if they want to go the extra length. The lack of a paywall will encourage more students to adopt the extension.

#### 2.1.2.8.2 Weaknesses

The main weakness the extension has is user attention. While StudySync is to have a shallow barrier to entry, a user still needs to be mindful of the tool to get valuable results out of it.

The Coursera time tracker will be based on the current Coursera page the user is on. If the user moves on to a different task, gets distracted or moves on from what the time tracker thinks the user is doing, the data will be invalid and inaccurate. Therefore, reminders, checks, and balances must be implemented to ensure the user is mindful of the tool. This must be done without aggravating the user, which brings us to our next point: uninstallation.

Many users desire to increase their productivity, but it's easy to get frustrated when using any productivity tool, which can lead to rejection of the tool. For example, the whitelist web blocker can increase productivity during study sessions. However, if the user is unmotivated or in a poor mental headspace, they can reject the tool's guidance and either disable it or uninstall it. Thus, the user will need to have a certain level of motivation to use the tool effectively.

#### 2.1.2.8.3 Opportunities

Refer to section 1.2.

#### 2.1.2.8.4 Threats

StudySync's main threat is rejection by our target demographic. Solving our problem set is useless if no one uses the extension. Our team must also know the Coursera and University of London rules/regulations to ensure our extension is not problematic in these entities' eyes. Another potential threat is the storage of user data on the application. Bad actors could sniff the data through the web browser if the local database is not secured correctly. User data is a crucial concern, as a potential leak could lead to product rejection.

### 2.1.3 Project Problems and Objectives

- PP-1: Studying on Coursera is hindered by the complexity of the web browser.
- PP-2: Social media sites and other content sites easily distract from study sessions.
- PP-3: Coursera does not provide quality feedback regarding students' study habits.
  
- PO-1: Provide Coursera-integrated productivity tools that enhance study sessions.
- PO-2: Remove all website distractions from Coursera study sessions.
- PO-3: Effectively track 80% of study time for tasks related to courses accessed via Coursera.

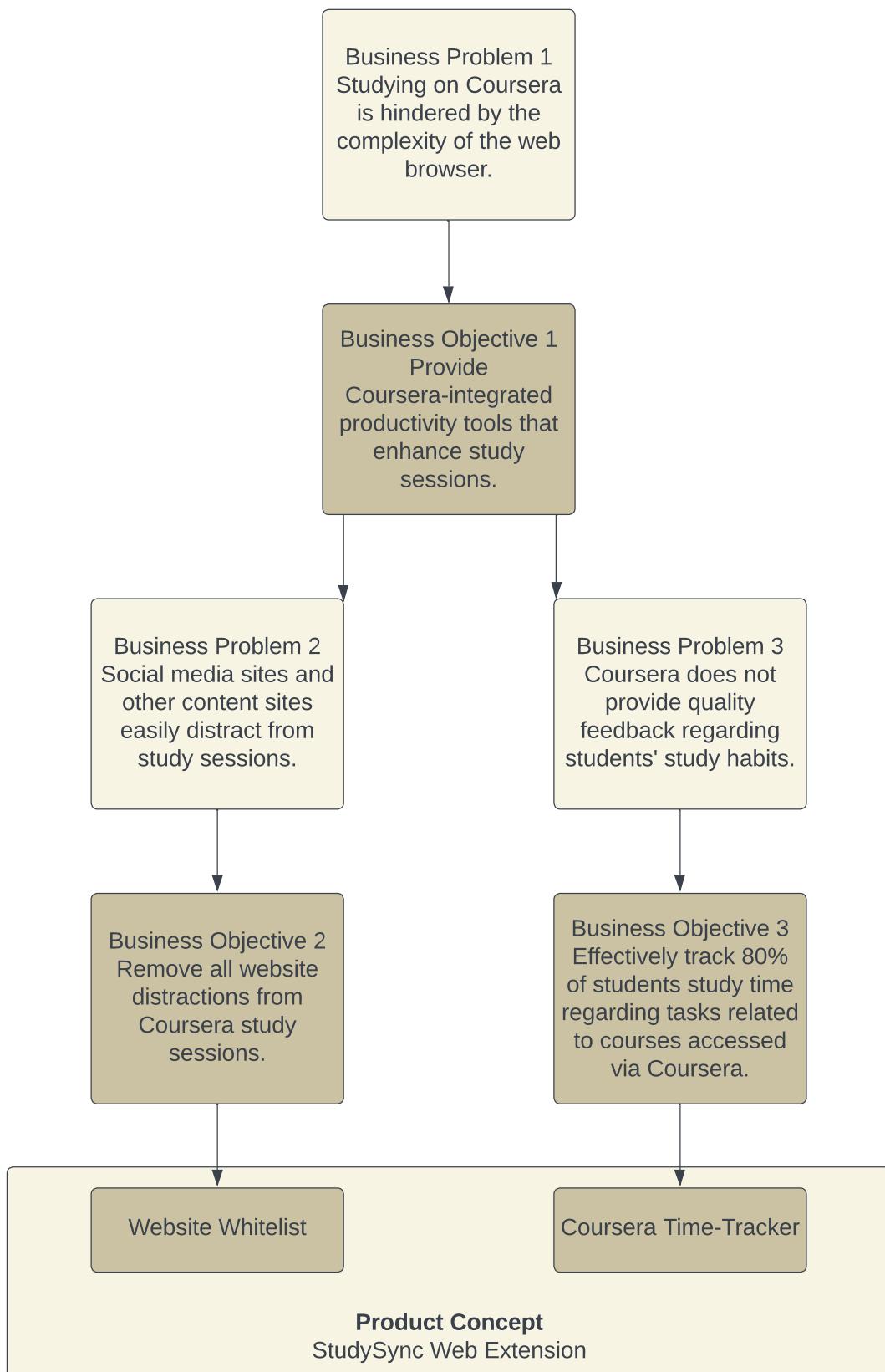


Figure 14: Product concept diagram.

#### 2.1.4 Success Metrics

- SM-1: Completion of project within relation to guidelines set by module leaders.
- SM-2: User feedback indicates MVP is in line with user requirements.
- SM-3: Complete implementation of SRS.

#### 2.1.5 Vision Statement

For computer science students enrolled in the program offered via Coursera and the University of London who need help to limit distractions to their studies, StudySync is a web extension that will provide a single point of access to study productivity tools. The web extension will use a whitelist to block all web traffic except for the URLs specified. The system will combine this with time-tracking analytics to provide actionable feedback on the quality of the user's study sessions. The time tracker will track students' time spent studying during semesters in each class and each specific task within classes. This extension will increase students' productivity and provide actionable statistics to help guide their study sessions. This enables students to create better study habits and become better students. Unlike the current productivity web extensions on the market, our product will integrate directly with the Coursera website, contain no paywall, and come with out-of-the-box functionality to combine into a low barrier to entry Coursera productivity extension.

#### 2.1.6 Project Risks

- PR-1: The team's other responsibilities (courses, careers) could limit the practical completion of daily tasks.  
(Probability = 0.7; Impact 9)
- PR-2: User intentions could limit time-tracking tools, leading to low usage statistics. (Probability 0.3; Impact 4)
- PR-3: Users may prefer to stick with their current productivity tools instead of adopting StudySync (Probability 0.5; Impact 3)

### 2.1.7 Project Assumptions and Dependencies

- PA-1: Users will use StudySync properly.
- PA-2: Users will allow StudySync to access website information and data.
- DE-1: StudySync needs access to the Coursera website to track study time effectively.
- DE-2: Users need to know what the time tracker is currently tracking to provide accurate analytics.
- DE-3: StudySync needs access to web browser data.

## 2.2 Scope and Limitations

### 2.2.1 Major Features

- MF-1: View and update whitelist URLs and settings.
- MF-2: Store the whitelist in a persistent state on the local machine.
- MF-3: Block all URLs that are not present on the whitelist.
- MF-4: View and update time tracker settings
- MF-5: Track time spent on Coursera-related tasks.
- MF-6: Store the time tracking data in a persistent state on the local machine.
- MF-7: Display data analytics on a data dashboard.

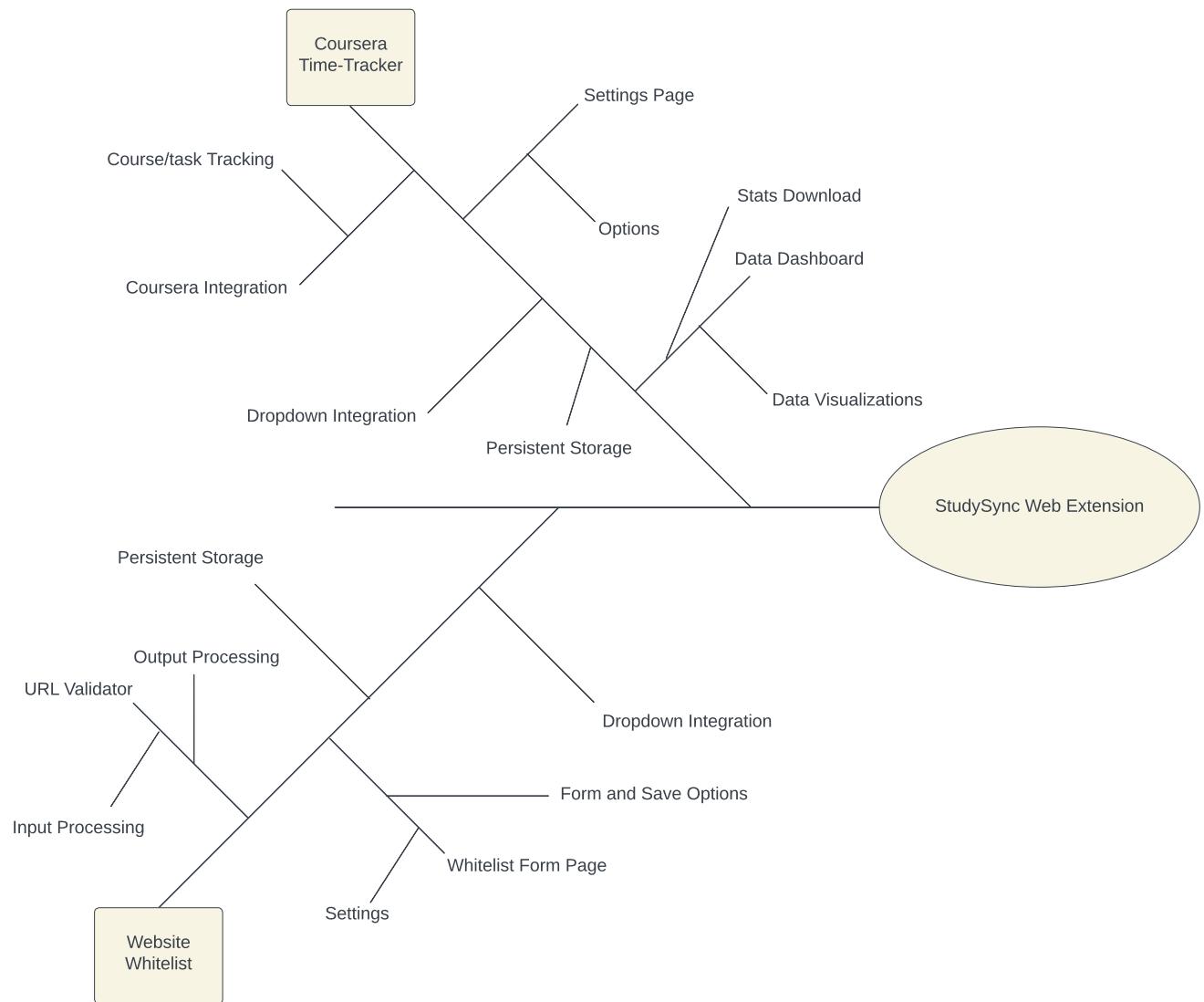


Figure 15: Feature tree diagram.

## 2.2.2 Scope of the Development Process.

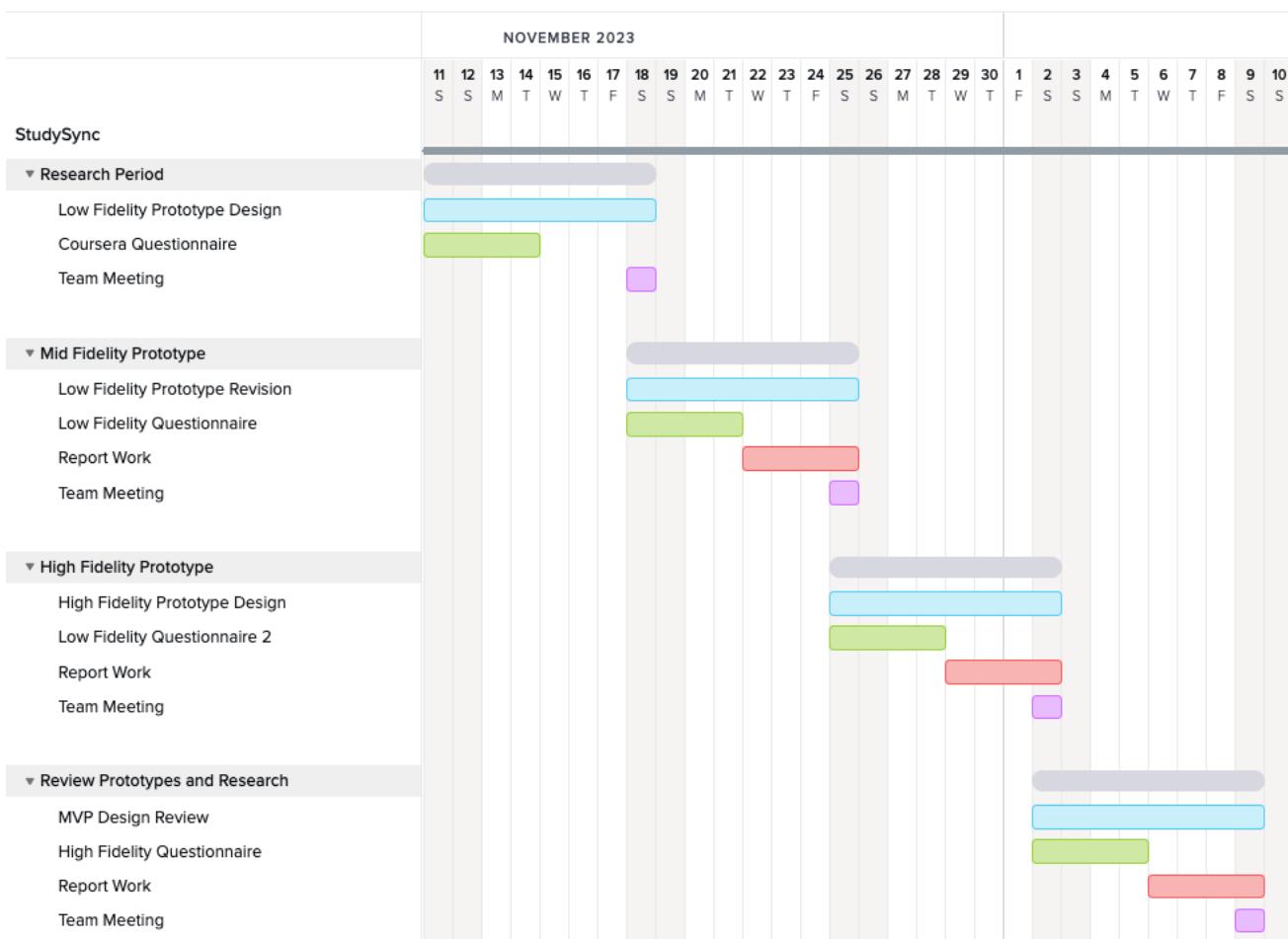


Figure 16: November 11 – December 9.

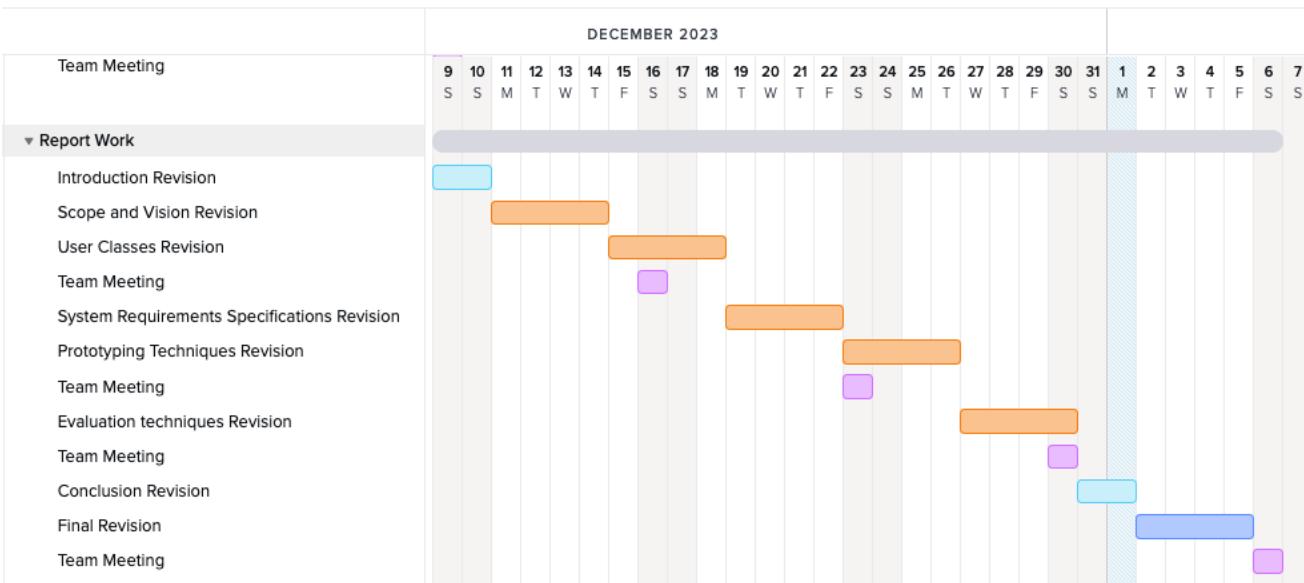


Figure 17: December 9 – January 7.

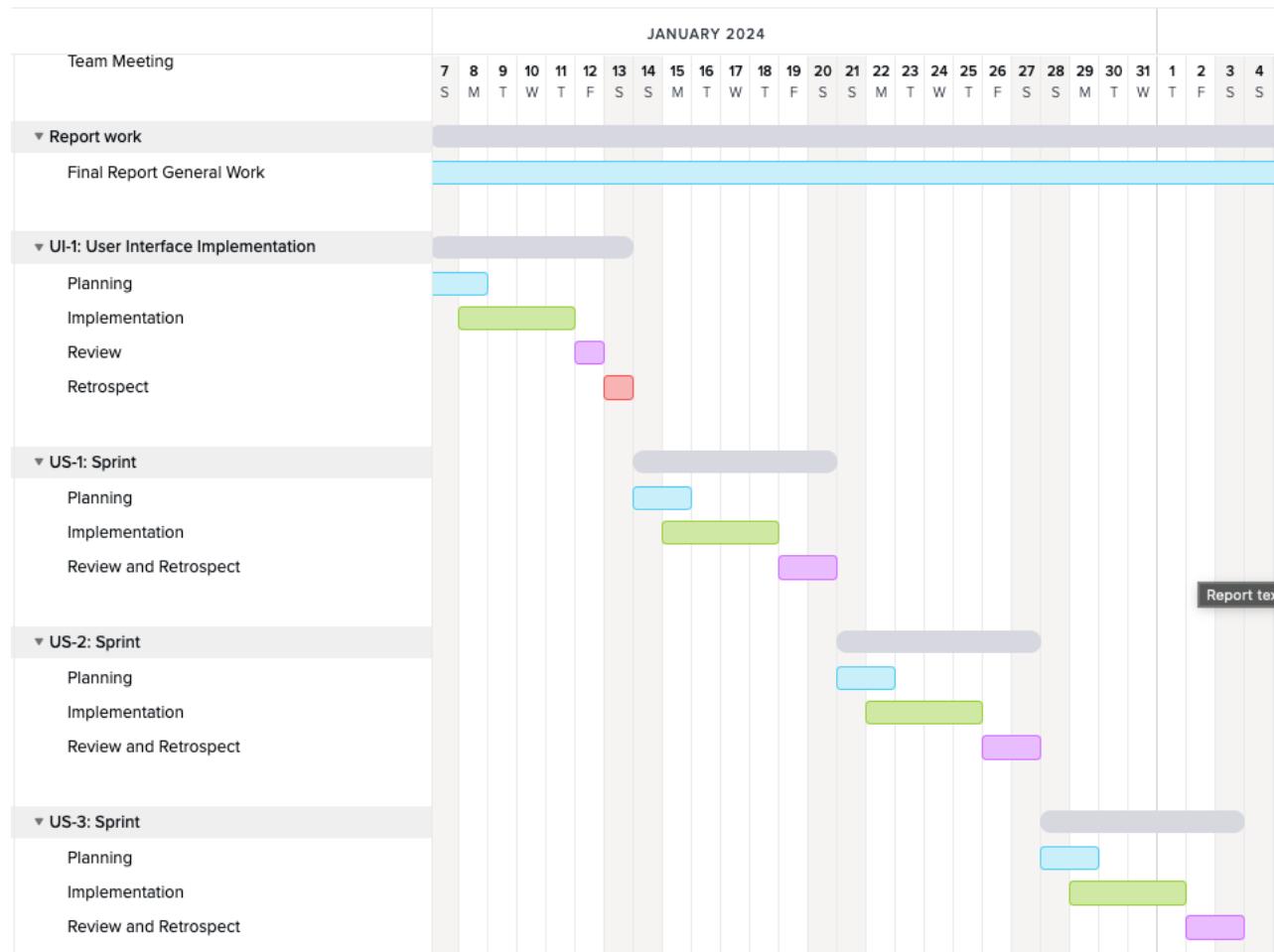


Figure 18: January 7 – February 4.

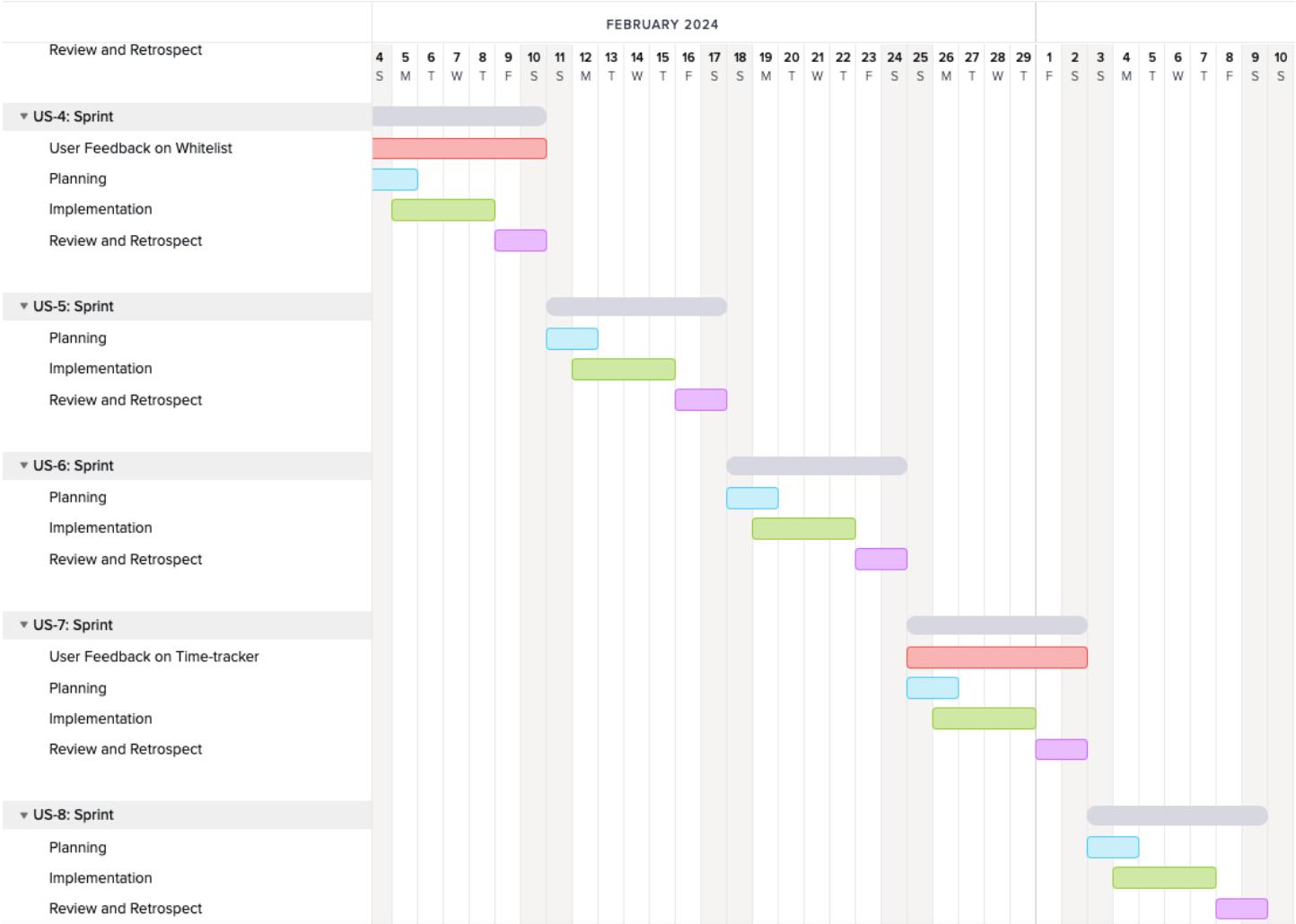


Figure 19: February 4 – March 10.

## 2.2.3 Limitations and Exclusions

- LI-1: No support will be provided for the Coursera mobile application.
- LI-2: Users must keep a Coursera page open for all time-tracking.
- EX-1: Further productivity tools (Pomodoro, AI, etc.) are out of scope for the initial release.

## 2.3 Project Context

### 2.3.1 Stakeholder Profiles

Stakeholder	Major Value	Attitudes	Major Interests	Constraints
BSc Computer Science Students	Improved study productivity and time savings by limiting distractions.	Receptive to the project throughout development but not overly excited until the final product release.	Successful completion of courses. Implementation of quality study practices.	A hectic schedule may cause a struggle to see value in looking into new tools.
StudySync	Successful completion of CM2020. Combined with the development of essential project management skills.	Strong commitment and enthusiasm related to project development and delivery.	Successful completion of project and course. Quality implementation of the project.	Like the rest of the students, the team's busy schedule, combined with the course's timeline, limits the potential of the web extension.
Coursera	Improved ecosystem surrounding students and their study time.	No attitude regarding the project unless it breaks their terms of service.	Implementation of a quality online learning platform. Maintenance and inclusion of a quality community of learners.	Their terms of use need to be accounted for throughout the project lifecycle.
Dr. Sean McGrath and Module Tutors	May use the success or failure of overall groups to dictate future decisions regarding this module.	Strong enthusiasm throughout project development.	Seeing student success throughout the course. Providing quality feedback to students.	Their grading scheme and oversight will directly affect what the end goal of the project is.
University of London	As mentioned above, class statistics are more helpful to this stakeholder.	No direct attitude towards the project, unless it deviates from a standard delivery. Such as violating program regulations.	Seeing overall student success throughout courses. Fostering a quality environment for learning.	The program regulations will directly affect what can and will be produced by our team.

### 2.3.2 Project Priorities

Dimension	Constraint	Driver	Degree of Freedom
Features	All features scheduled for MVP must be fully operational.	Features correspond to a well-fit product for our project problems. Failure to implement features is a failure to solve the project problems.	If the initial scope and project are finished before the deadline. The team can create further functionality.
Quality	The team has agreed to a standard of work which matches upper second class – first class.	The team wishes to do well in the class.	The schedule is more pressing than quality. The deadline should always be accounted for.
Schedule	The midterm submission date is January 8 <sup>th</sup> , 2024. The final submission date will be in March.	NA	NA
Cost	The main finite resource the project is dealing with is time. Project needs to be finished within course defined deadlines.	NA	NA
Staff	Staff is limited to a 5-person team assigned by the University.	NA	NA

### 2.3.3 Deployment Considerations

The web extension will be deployed on the Google Chrome store. Our preliminary questionnaire indicated that 71% of the degree students use Google Chrome. The users must have an up-to-date Chrome browser to utilize the extension. Coursera policies and the University of London's regulations will also guide how the extension is deployed.

## 3 User Requirements

StudySync will respond to a single user's actions, the user being the individual interacting with the web browser. This user will be a student studying for the BSc, Computer Science through Coursera, offered in collaboration with the University of London. These user requirements were gathered and validated using the user requirements questionnaire in Appendix 7.1.3 and StudySync team elicitation.

ID and Name:	US-1: As a student, I want to be able to toggle the whitelist blocker to change focus from study sessions to a different task.
Description:	The user either turns on or turns off the whitelist blocker functionality.
Trigger:	The user clicks on the whitelist toggle.
Preconditions:	PRE-1: StudySync is installed in web browser extensions.
Postconditions:	POST-1: The whitelist blocker is either on or off based on the toggle.
Normal Flow:	<p><b>1.0 Toggle whitelist blocker.</b></p> <ol style="list-style-type: none"> <li>1 The user clicks on the whitelist toggle in the StudySync dropdown menu.</li> <li>2 The whitelist is either set to on or off based on the toggle.</li> </ol>
Frequency of Use:	Approximately ten times daily, assuming a study session occurs daily with techniques such as Pomodoro timing.
Assumptions:	Assume that users will never accidentally click this button and do not need to be warned when the whitelist will be toggled.

ID and Name:	US-2: As a student, I want to navigate to an allowed URL so that I can further my study session.
Description:	StudySync should validate all URLs entered by the user against the whitelist.
Trigger:	The user navigates to a new URL through their web browser.
Preconditions:	PRE-1: The whitelist is enabled.
Postconditions:	POST-1: The user is either allowed to navigate to or rejected from navigating to the given URL.
Normal Flow:	<p><b>2.0 The user navigates to a URL.</b></p> <ol style="list-style-type: none"> <li>1. The user enters a URL into their web browser.</li> <li>2. The user hits the search button.</li> <li>3. The browser passes the URL to StudySync.</li> <li>4. StudySync confirms the URL is on the whitelist.</li> <li>5. StudySync allows access to the URL.</li> </ol>
Alternative Flows:	<p><b>2.1 StudySync rejects the URL.</b></p> <ol style="list-style-type: none"> <li>1. Same steps 1-3 as above.</li> <li>4. StudySync confirms the URL is NOT on the whitelist.</li> <li>5. StudySync rejects access to the URL.</li> <li>6. The user is prompted with a notification that the URL is not on the whitelist and, therefore, has been denied.</li> <li>7. The user is prompted with an add to whitelist option.</li> </ol>
Frequency of Use:	This will happen frequently when the whitelist is enabled. Users will navigate to many different websites during their study sessions. Some will be conducive to their studies, and others will not.
Other Information:	<ol style="list-style-type: none"> <li>1. Users should face little resistance when navigating to a website they wish to view for their studies. If the extension has too many roadblocks, users will uninstall it.</li> <li>2. Users should be deterred from whitelisting distracting websites by displaying a quote or something inspirational when a page is blocked.</li> </ol>
Assumptions:	Assume that users will be reasonably determined to allow the tool to help with study sessions. This means the user won't bypass the whitelist and will be enough to set the user back on track.

ID and Name:	US-3: As a student, I want to whitelist a URL I need to visit so that I can study the material stored at that URL.
Description:	The user can manually enter the URL into the whitelist form to whitelist it. Or navigate to the URL in question and whitelist it from StudySync's reactive response listed in the above user story.
Trigger:	The user either navigates to an unlisted URL or enters a URL into the whitelist form.
Preconditions:	PRE-1: The whitelist is enabled.
Postconditions:	POST-1: The URL is now whitelisted.
Normal Flow:	<p><b>3.0 Whitelist URL through StudySync's reactive response.</b></p> <ol style="list-style-type: none"> <li>1. The user completes steps 1-7 in US-2.1.1.</li> <li>2. The user clicks on the "add to whitelist" option.</li> <li>3. The URL is added to the whitelist.</li> <li>4. The newly whitelisted page is loaded for the user to access.</li> </ol>
Alternative Flows:	<p><b>3.1 Whitelist the URL by directly adding it to the whitelist form.</b></p> <ol style="list-style-type: none"> <li>1. The user navigates to the whitelist form page.</li> <li>2. The user enters the URL to be whitelisted into the form.</li> <li>3. The user clicks on the "save" button.</li> </ol>
Frequency of Use:	The user will whitelist many sites when using StudySync. However, this will wane off after a while as the user allows access to the sites that are part of their usual study routine. This will then pick up once the user starts a new semester and requires access to fresh, differing websites.
Assumptions:	Assume the user will only whitelist sites which are conducive to their study sessions.

ID and Name:	US-4: As a student, I want to remove URLs from the whitelist so I can terminate access to a distracting website I needed to access briefly.
Description:	Users will sometimes need to navigate to potentially distracting websites. However, after engaging, the user will remove it from the whitelist to ensure the distracting portion of the website cannot be accessed.
Trigger:	The user deleted a URL from the whitelist form.
Preconditions:	PRE-1: The URL in question is stored on the whitelist form.
Postconditions:	POST-1: The deleted URL is removed from the whitelist. POST-2: The deleted URL can no longer be accessed by the user.
Normal Flow:	<p><b>4.0 Remove a URL from the whitelist.</b></p> <ol style="list-style-type: none"> <li>1. The user navigates to the whitelist form page.</li> <li>2. The user selects the URL(s) they wish to remove.</li> <li>3. The user deletes them from the whitelist form.</li> <li>4. The user clicks the "save" button.</li> </ol>
Frequency of Use:	This will be functionality which is used more during revision. Users often navigate to potentially distracting websites to gain further insight into a complex topic.
Assumptions:	Assume the user will remember to remove the distracting website from the whitelist once their goals are complete.

ID and Name:	US-5: As a student, I want to study a course on Coursera and have that time tracked so I can gain insights into my study habits.
Description:	When a student navigates to Coursera and enters a course home page, StudySync will begin tracking the time spent within the course catalogue and the finite tasks the user will complete.
Trigger:	The user navigates to a course on Coursera.
Preconditions:	PRE-1: The extension is enabled. PRE-2: The extension is allowed access to website data.
Postconditions:	POST-1: Study time is tracked and stored in a flat database.
Normal Flow:	<p><b>5.0 The user starts studying a course on Coursera.</b></p> <ol style="list-style-type: none"> <li>1. The user navigates to a Coursera course homepage.</li> <li>2. StudySync begins tracking time spent in the course.</li> </ol>
Alternative Flows:	<p><b>5.1 The user starts working on a task within a selected course.</b></p> <ol style="list-style-type: none"> <li>1. StudySync begins allotting time to a specific task under the current course.</li> </ol>
Exceptions:	<p><b>5.0, 5.1 E1: the user opens multiple tabs.</b></p> <ol style="list-style-type: none"> <li>1. Only the tab which was first opened will be tracked by the extension.</li> </ol>
Frequency of Use:	Most students will use the time-tracking portion of the extension daily.
Other Information:	1. If the user clicks on a link in a Coursera course and it redirects to an external website, StudySync will continue to track the time as it was.
Assumptions:	Assume the users will remain relatively vigilant regarding what the extension is tracking.

ID and Name:	US-6: As a student, I want to view my time-tracking data in a digestible format to gain quick insights into my study habits.
Description:	Users will navigate to a data dashboard that will provide data visualizations and enable the user to gain actionable insights into their study patterns.
Trigger:	The user navigates to the data dashboard.
Preconditions:	PRE-1: Data has been collected by the time tracker.
Normal Flow:	<p><b>6.0 User views the data dashboard.</b></p> <ol style="list-style-type: none"> <li>1. The user navigates to the data dashboard.</li> <li>2. StudySync displays data visualizations based on time-tracking data.</li> </ol>
Exceptions:	<p><b>6.0 E1 User has not yet tracked any data.</b></p> <ol style="list-style-type: none"> <li>1. The data dashboard displays a message indicating data needs to be collected before the dashboard can function.</li> </ol>
Frequency of Use:	The data dashboard will be used infrequently, most likely weekly.
Other Information:	1. The data dashboard visualizations and data grouping will need to be decided on during the sprint for this user story.

ID and Name:	US-7: As a student, I want to export my time tracker stats so that I can further explore the data using external tools.
Description:	Users may want to export their time-tracking data for further use in external tools. Therefore, an export option will be provided in CSV format.
Trigger:	The user clicks on the “export” button on the data dashboard.
Preconditions:	PRE-1: There is data stored in the extension.
Postconditions:	POST-1: A CSV file is created with the current time tracker data.
Normal Flow:	<p><b>7.0 Export the time tracker data to a CSV file.</b></p> <ol style="list-style-type: none"> <li>1. The user navigates to the data dashboard.</li> <li>2. The user clicks on the “export” button.</li> <li>3. StudySync downloads the CSV file to the user’s machine.</li> </ol>
Exceptions:	<p><b>7.0 E1: The user has not yet tracked data.</b></p> <ol style="list-style-type: none"> <li>1. No export button will be displayed.</li> </ol>
Frequency of Use:	This will be an infrequent action used by StudySync’s power users only. Most users will find the data dashboard meets their needs.
Other Information:	<ol style="list-style-type: none"> <li>1. During this sprint, user feedback can change add or change the formats the data is exported to.</li> </ol>

ID and Name:	US-8: As a student, I want to adjust the time tracker settings so that I can tailor the extension to my study sessions.
Description:	Users may need to perform certain actions, such as indicating a new semester has started, deleting data or adding tasks to courses. This story will need to be fleshed out with users when this sprint comes around.
Trigger:	The user accesses the time tracker settings page.
Postconditions:	POST-1: Settings are updated.
Normal Flow:	
Alternative Flows:	
Exceptions:	
Frequency of Use:	
Other Information:	
Assumptions:	

**(Confirm During Sprint)**

## 4 Software Requirements Specification

### 4.1 Introduction

#### 4.1.1 Purpose

The SRS describes the functional and non-functional requirements for the initial release of StudySync.

It is intended to guide the system's implementation and verify the web extension's correct functioning.

### 4.2 Overall Description

#### 4.2.1 Product Perspective

StudySync is a new web extension that aids Coursera students in their studies through a collection of productivity tools, including a whitelist web blocker and a time tracker dedicated to the Coursera platform.

The following context diagram illustrates the initial release's external entities and system interfaces.

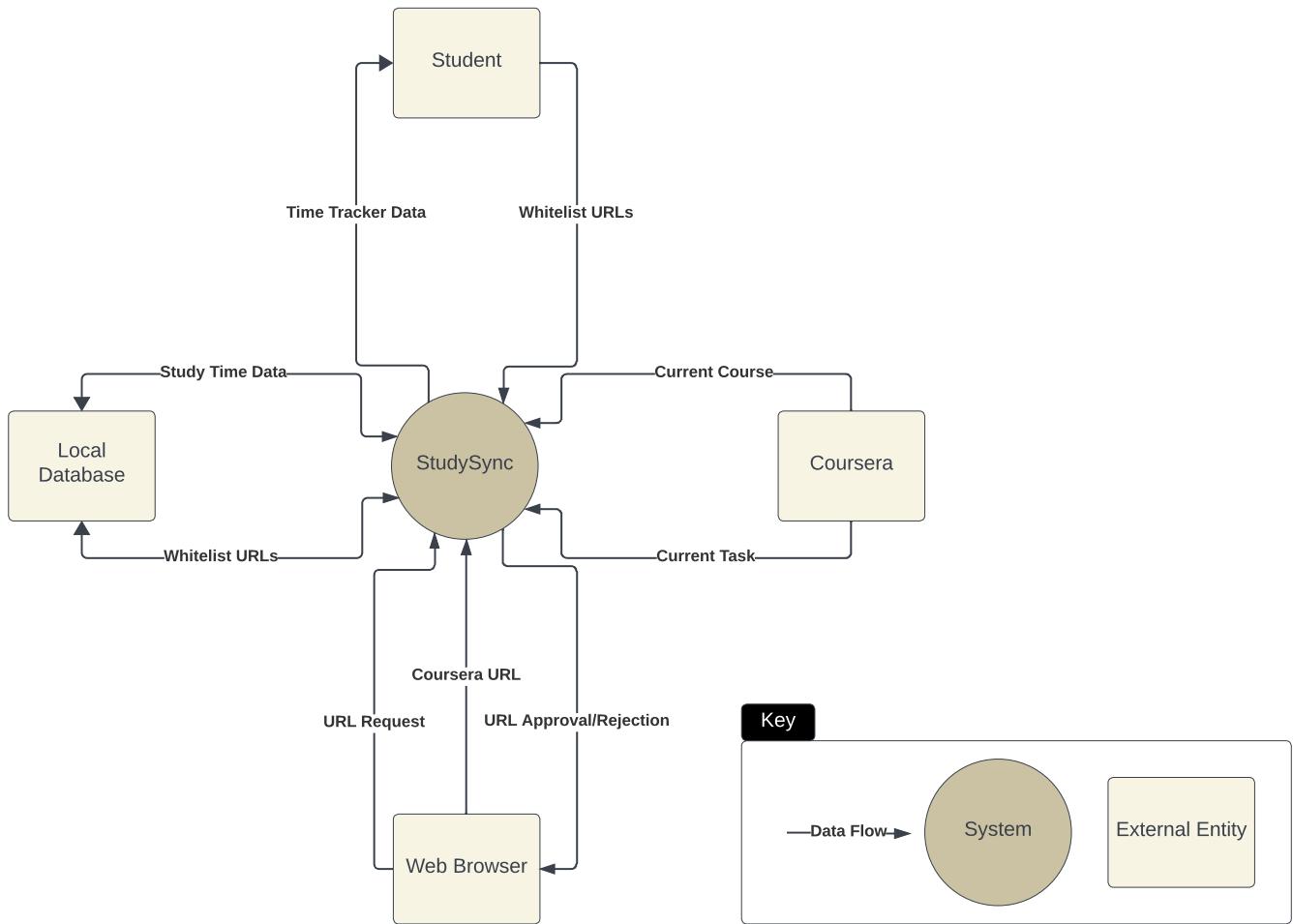


Figure 20: Context Diagram.

#### 4.2.2 Operating Environment

- OE-1: StudySync shall operate correctly on the following web browsers: Google Chrome (all versions).

#### 4.2.3 Design and Implementation Constraints

- CO-1: StudySync's design, code and maintenance documentation shall conform to the *Google Webstore Program Policies*, <https://developer.chrome.com/docs/webstore/program-policies>.
- CO-2: StudySync shall conform to *Coursera's Terms of Use*, <https://www.coursera.org/about/terms>.

#### 4.2.4 Assumptions and Dependencies

- AS-1: The user is a student enrolled in the BSc in Computer Science offered on Coursera in partnership with the University of London.
- AS-2: The user will enter valid URLs into the whitelist form.
- DE-1: The user has allowed StudySync to access their website data.

### 4.3 System Features

#### 4.3.1 Interact with the Extension via the Dropdown Menu

##### *4.3.2.1. Description*

The user can interact with the extension via the dropdown menu. This will allow users to quickly toggle the whitelist web blocker and view their current time tracker stats. The dropdown will also enable users to navigate to the HTML pages provided by the extension.

##### *4.3.2.2 Functional Requirements*

Dropdown.Whitelist:	<b>Dropdown whitelist functionality</b>
.Toggle:	StudySync shall toggle the whitelist between on and off when the user clicks the toggle button.
.AddToWhitelist: .Reload:	StudySync shall add the current domain name to the whitelist. StudySync shall reload the current webpage.
.EditWhitelistButton:	StudySync shall redirect the user to the whitelist HTML page when the user clicks this button.

Dropdown.TimeTracker:	<b>Dropdown time-tracker functionality</b>
.Display:	StudySync shall display the current course and task being tracked along with the total time spent on the current task.
.StatsButton:	StudySync shall redirect the user to the data dashboard HTML page when the user clicks this button.
.SettingsButton:	StudySync shall redirect the user to the time-tracker settings HTML page when the user clicks this button.

#### 4.3.2 Navigate the HTML Pages via the Navbar

##### 4.3.2.1 Description

The user can navigate the extension's HTML pages via a navbar, directing the user to the associated HTML page.

##### 4.3.2.2 Functional requirements

Navbar:	<b>HTML pages navbar functionality</b>
.Whitelist:	When the user clicks on the whitelist navigation link, StudySync shall direct the user to the whitelist form page.
.DataDashboard:	When the user clicks on the data dashboard navigation link, StudySync shall direct the user to the data dashboard page.
.TimeTrackerSettings:	When the user clicks on the time-tracker settings navigation link, StudySync shall direct the user to the time-tracker settings page.

#### 4.3.3 Edit the Whitelist Form

##### 4.3.3.1 Description

The user can adjust the URLs to be allowed by the whitelist web blocker. They can add and remove URLs via the form and save the updated list by clicking the save button.

##### 4.3.3.2 Functional Requirements

Whitelist.Form:	<b>Editing whitelist form</b>
.AddURL:	StudySync shall allow the user to enter a new URL into the whitelist form.
.RemoveURL:	StudySync shall allow the user to remove a saved URL.
.SaveButton:	When the user clicks the save button, StudySync shall save the current whitelist form.

#### 4.3.4 Whitelist all Attempted URL Queries

##### 4.3.4.1 Description

StudySync will automatically verify that all URL requests made by the web browser can reach the user via the whitelist.

#### 4.3.4.2 Functional requirements

<b>Whitelist.Verify:</b>	<b>Verify user can access a given URL</b>
.RetrieveURL:	StudySync shall retrieve all URL queries made by the web browser.
.CompareURL:	StudySync shall compare all URL query domain names made by the web browser with the whitelist.
.Allow:	If the Domain name is on the whitelist, StudySync shall allow access to the website.
.Deny:	If the Domain name is not on the whitelist, StudySync shall not allow access to the website.
.Alert:	StudySync shall alert the user via a custom URL page indicating the requested URL has been blocked.

#### 4.3.5 Track Coursera Study Time

##### 4.3.5.1 Description

When a user has a URL open with the domain name coursera.org, StudySync will automatically track the time the user spends studying a course on the Coursera platform.

##### 4.3.5.2 Functional requirements

<b>TimeTracker.Track:</b>	<b>Track time spent studying on Coursera</b>
.Validate:	StudySync shall validate the domain name of all URLs to check if the user is on a Coursera domain.
.CheckCourse:	StudySync shall confirm if the full URL is related to a course selected by the user in the time tracker settings.
.TrackCourse:	If the user is currently in a course Coursera section. StudySync shall start tracking time spent in the course.
.TrackTask:	If the user is within a given task, then StudySync shall track the time spent on the current task shown by the URL. This will be tracked under the current course the user is in.
.StoreData:	StudySync shall automatically store the time-tracker data locally in a flat format.

#### 4.3.6 View Time-Tracker Stats on Data Dashboard

##### 4.3.6.1 Description

The user can gain insights into their Coursera study habits via a data dashboard to visualize the time-tracker data. The user can break the data down by the overall semester, courses, and further details to be determined based on user feedback.

#### 4.3.6.2 Functional requirements

TimeTracker.DataDashboard:	<b>Display the data collected by the time tracker.</b>
.Group:	StudySync shall organize the data into logical separations.
.Semester:	StudySync shall display data visualizations based on the current semester's time-tracking data.
.Course:	StudySync shall display data visualizations based on the currently selected course.
.SelectCourse	StudySync shall allow the user to select the current course to be analyzed on the data dashboard.
.TBD:	User feedback can guide further visualizations when this is implemented.
.StoreData:	StudySync shall automatically store the time-tracker data locally in a flat format.
.Export:	StudySync shall allow the user to export the time-tracker data to CSV format.

#### 4.3.7 Adjust Time-Tracker Settings

##### 4.3.7.1 Description

The user will need to adjust specific requirements and information for the time-tracker. This system requirement must be fleshed out during the sprint.

##### 4.3.7.2 Functional requirements

TimeTracker.Settings:	<b>Adjust the time-tracker settings</b>
.TBD:	The settings page will need to be fleshed out during the sprint related to it. User feedback will need to be gathered to ensure the time-tracker is meeting their needs.

## 4.4 StudySync Workflow

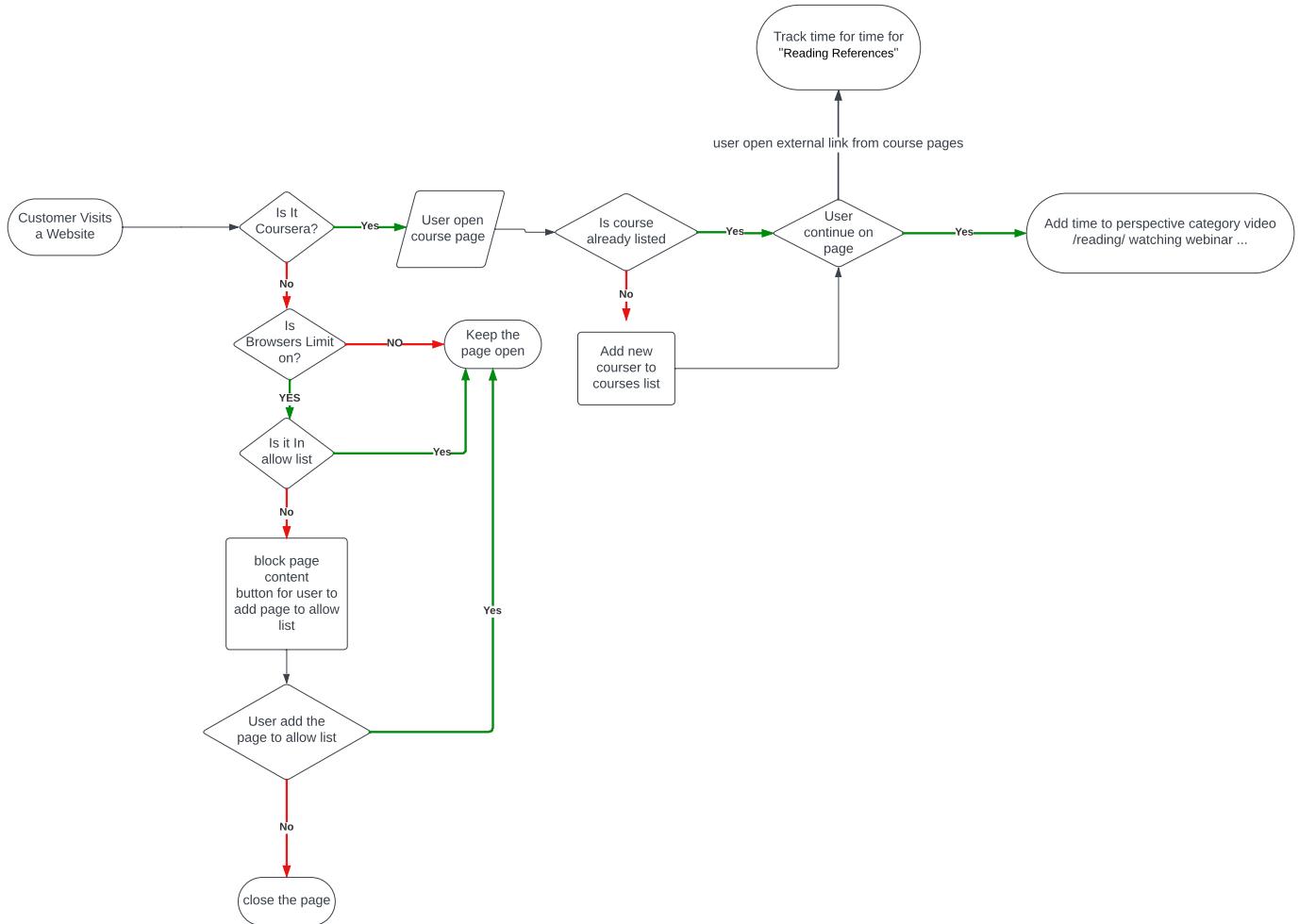


Figure 21: StudySync Workflow.

## 4.5 Data Requirements

### 4.5.1 Logical Data Model

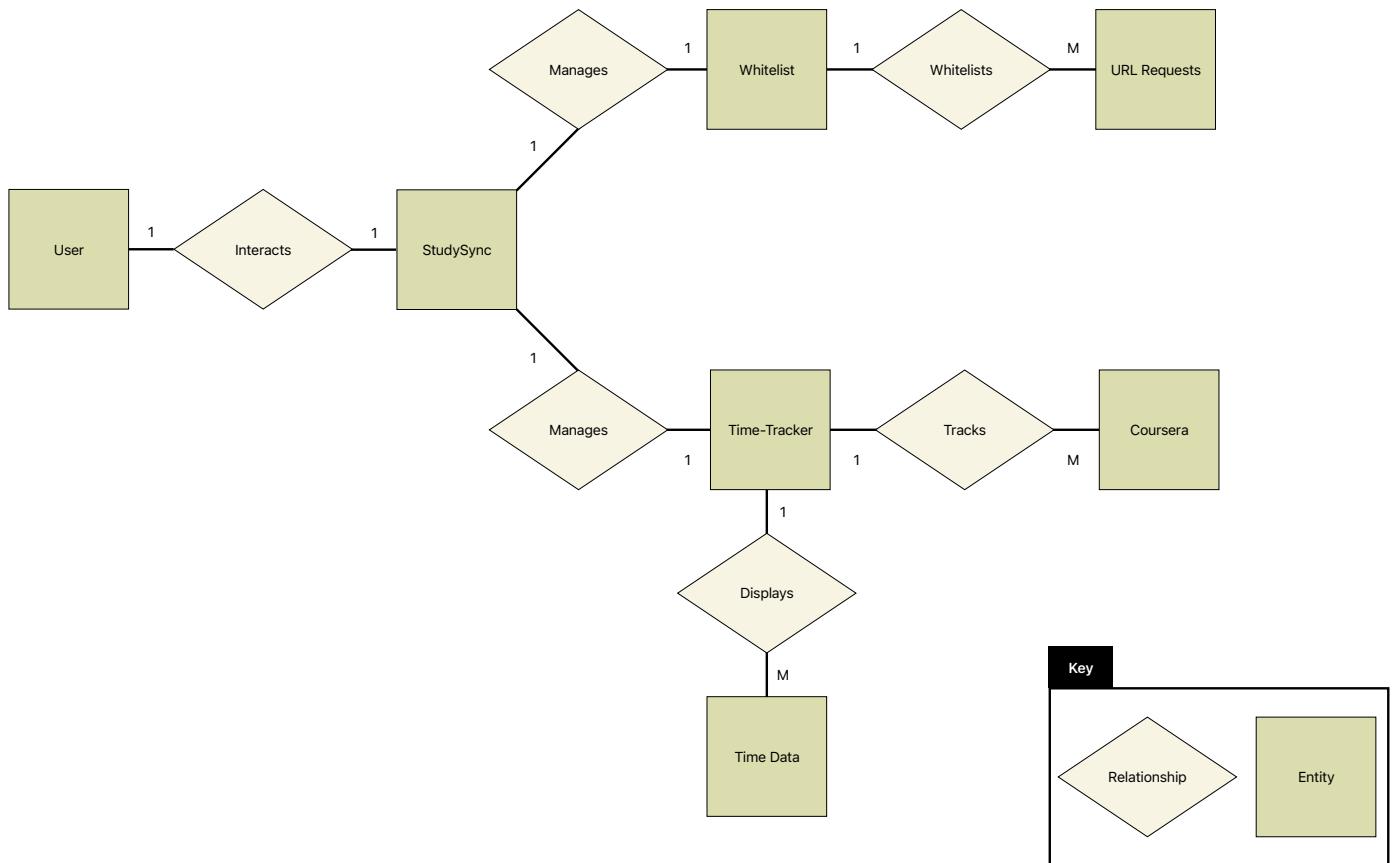


Figure 22: Logical Data Model.

### 4.5.2 Data Dictionary

Data Element	Description	Composition or Data Type	Length
Course	A course provided by Coursera.	String	50
Task	A task to complete indicated by an associated course.	String	50
Course Time	The amount of time the user has spent with a given course opened on their web browser.	Time	DD:HH:MM
Task Time	The amount of time the user has spent with a given courses task opened on their web browser.	Time	DD:HH:MM
URL	A given websites address.	String	250
Domain Name	A given website's domain name.	String	100
Semester Start Date	The start of the current semester as selected by the user.	Date	DD/MM/YYYY

#### 4.5.3 Reports

Report ID	StudySync-Report-1
Report Title	Time Tracker Data
Report Purpose	The user wants to download time tracker data stored up to the current point in time. Allowing them to further analyze the data with external tools.
Data Sources	The time-tracker flat-file database.
Frequency and Disposition	The report is generated on demand by a user. Data in the report is static. The report is exported in CSV format.
Report Body	Fields shown and column headings: Course Task Time All data for the current semester will be exported and sorted by course alphabetically.
Security Access Restrictions	The user can only view the data stored on their local machine.

#### 4.5.4 Data Acquisition, Integrity, Retention, and Disposal

- DA-1: StudySync shall collect input data from the user via the whitelist form, dropdown menu, and time-tracker settings page.
- DA-2: StudySync shall collect data automatically from any URL with coursera.org as the domain name.
- DR-1: StudySync shall allow the user to dictate how long the data is stored.
- DD-1: StudySync shall allow the user to delete all data from the extension.

### 4.6 External Interface Requirements

#### 4.6.1 User Interfaces

- UI-1: StudySync shall conform to user interface standards set by *Google* <https://developer.chrome.com/docs/extensions/develop/ui>.
- UI-2 Interface design shall conform to user feedback acquired via questionnaires.

#### 4.6.2 Software Interfaces

- SI-1: StudySync shall communicate with the web browsers through a programmatic interface.
- SI-2: StudySync shall store data through Google Chrome's storage API:

[https://developer.chrome.com/docs/extensions/mv2/reference/storage?hl=en#storage\\_areas](https://developer.chrome.com/docs/extensions/mv2/reference/storage?hl=en#storage_areas).

### 4.7 Quality Attributes

#### 4.7.1 Usability

- USE-1: StudySync shall enable users to reach a specified page within two clicks.

#### 4.7.2 Performance

- PER-1: StudySync shall have a minuscule effect on web pages and overall browser loading times.

#### 4.7.3 Security

- SEC-1: StudySync shall only allow the web browser user to view stored time-tracker data.
- SEC-2: StudySync shall not permit any website access to the user data.

#### 4.7.4 Safety

SAF-1: For permanent actions like deleting data, StudySync shall confirm if the user wants to proceed.

## 5 Prototypes

### 5.1 Low-Fidelity Prototypes

#### 5.1.1 Prototype One

The prototype took heavy inspiration from the applications the team researched. It implemented clear and straightforward UI decisions. The dropdown menu displays the most important options to the users, enabling them to navigate the web pages. The whitelist page contains a form with all of the allowable URLs. The form takes up most of the page to ensure the form is highlighted. The data dashboard then breaks down the data into visual chunks that focus the user on what they are looking for. Lastly, the settings page follows a style similar to the data dashboard. Visual distinction is provided through simple white space separation. StudySync is meant to be a simple extension that integrates seamlessly with Course, and this prototype is our best interpretation of this idea.

# StudySync

## Website Whitelister

On / Off toggle

Add to whitelist

## Time Tracker

Current course

Current task

Stats

Settings

Figure 23: Dropdown Menu.

The screenshot shows a user interface for managing a whitelist of websites. At the top, there is a navigation bar with four items: 'StudySync', 'Whitelist Filter', 'Time Tracker Data', and 'Time Tracker Settings'. Below the navigation bar, a message states: 'Below are all whitelisted websites. You can add websites by typing in the URL or delete them by removing the URL.' A list of three websites is shown: '1 www.coursera.com', '2 www.example.com', and '3 www.textbook.com'. In the bottom right corner of the main content area, there is a 'Save' button.

Figure 24: Whitelist Page.

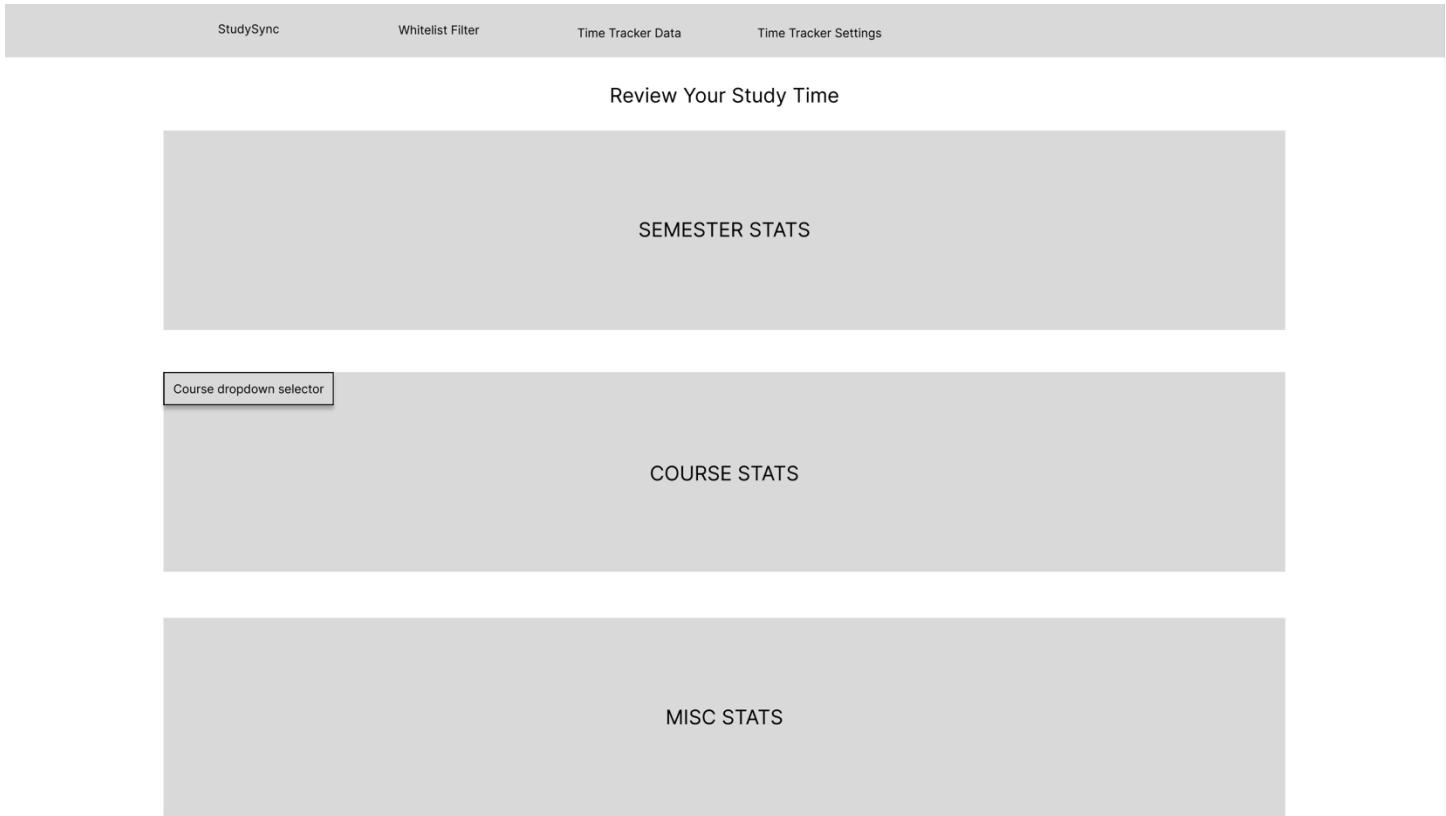


Figure 25: Data Dashboard Page

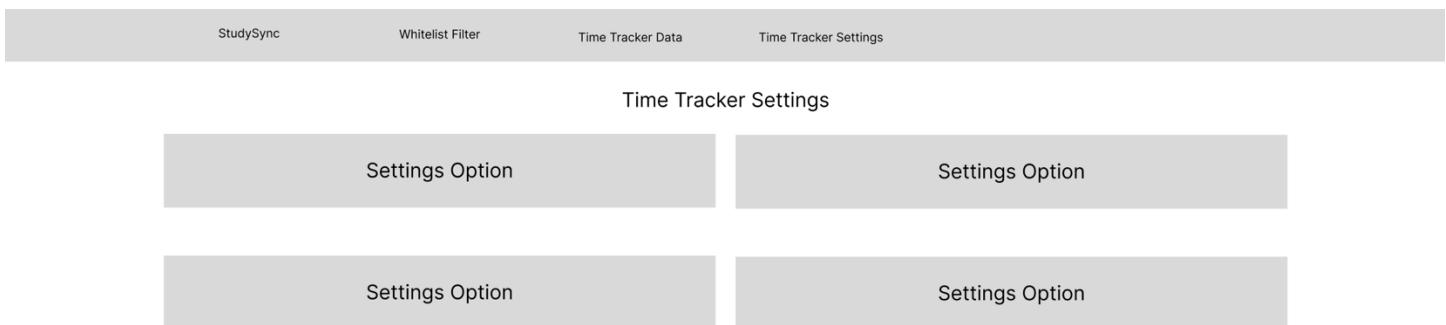


Figure 26: Settings Page.

### 5.1.2 Prototype Two

This prototype fits all functionality within a single dropdown menu. This is to keep the browser on a Coursera page. We wanted to see how users would react to a design that followed this implementation. Our market research indicated a page-based layout is the standard for these extensions. Still, with the focus on Coursera integration, it was vital to test some ideas that keep Coursera as the focus.

The screenshot shows a dropdown menu interface. At the top left is a three-line hamburger menu icon. To its right is the *Logo of Web Extension*. Below this is a section titled **Today's Task**, which contains a button labeled **+ Add Coursera Task**. The main body of the menu lists four tasks in a table format:

<b>Task</b>	<b>Duration</b>
Watching Webinars	Hours Min Secs 01:00:00
Reading References	00:00:00
Assignments	Hours Min Secs 00:00:00
Doing Past Papers	Hours Min Secs 00:00:00

Below the task list is a section titled **Browser Limiter**, which contains three toggle switches for different websites:

- Coursera**: A switch with **on** and **off** options, currently set to **on**.
- W3schools**: A switch with **on** and **off** options, currently set to **off**.
- University of London**: A switch with **on** and **off** options, currently set to **off**.

Figure 27: Dropdown Menu.

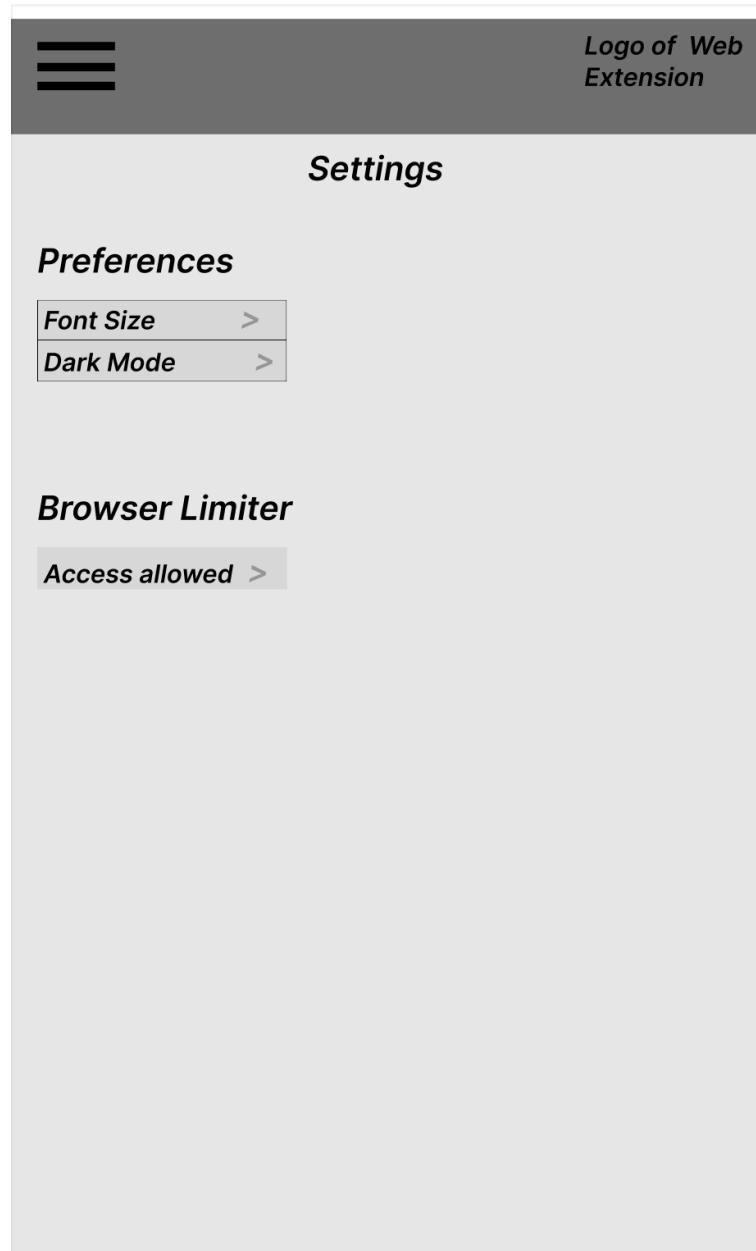


Figure 28: Dropdown Menu Settings.

### 5.1.3 Prototype Three

The final prototype was to test how simple we could make the extension. It tried to emulate some of the simplicity we saw in the market research. The first prototype was the one we thought functioned best. However, we wanted to test our assumptions that users would want a similar extension to what is currently on the market.

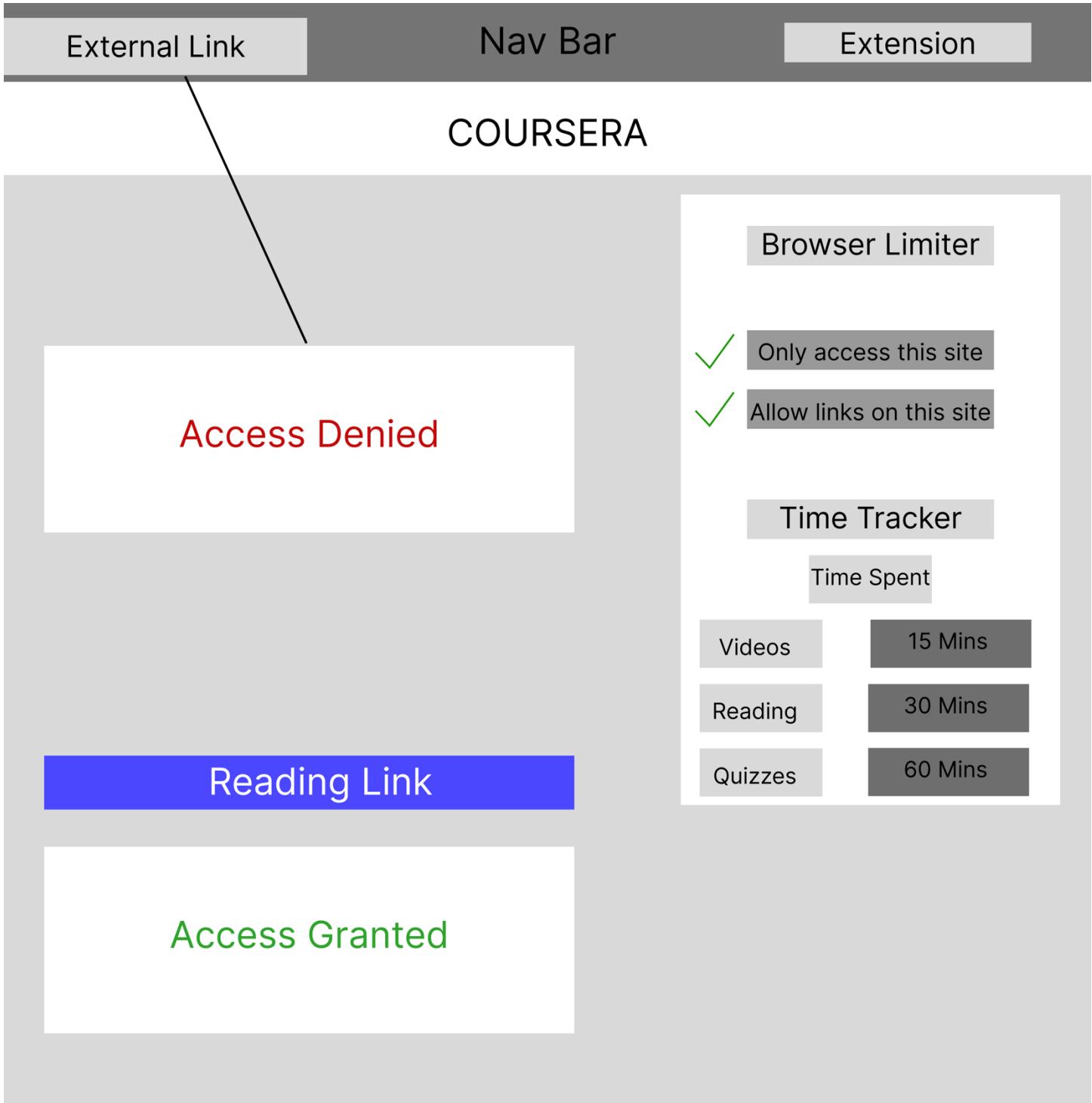


Figure 29: Dropdown menu.

## 5.2 Low-Fidelity Prototype Questionnaire

The questionnaire found in Appendix 7.1.2 was designed and sent to our user demographic to get feedback on the prototypes. Prototype one was the most popular one and validated our assumptions of what

users sought. However, prototype two also had positive feedback. Thus, StudySync decided to combine the functionality of the two for a high-fidelity prototype and make slight adjustments to the overall design to meet the users' expectations.

### 5.3 High-Fidelity Prototype

The first and second low-fidelity prototypes were combined to produce the high-fidelity design. This was implemented using JavaScript and functions as a basic prototype for users to interact with and get a feel for the extension. The user feedback was also combined with our system requirements and user stories to ensure the design met our understanding of what users seek. This design is a great starting point for meeting the expectations of our stakeholders and provides the basis for a valid solution within our problem space.

The screenshot shows a web browser window with the URL [coursera.org/learn/uol-cm2020-agile-software-projects/home/week/6](https://coursera.org/learn/uol-cm2020-agile-software-projects/home/week/6). The main content area displays the 'CM2020 Agile Software Projects' course material, specifically Week 6. A dropdown menu from the StudySync extension is open on the right side of the screen. The menu includes:

- Last active course:** CM2020 Agile Software Projects (2h, 30m)
- View all stats**
- Browser Limiter** (Block non-study websites)
  - ON (switch is blue)
  - OFF
- Allowed list**
  - <https://www.youtube.com/>
  - <https://www.facebook.com/>
- Overdue** (with a count of 1)

Figure 30: Dropdown Menu.

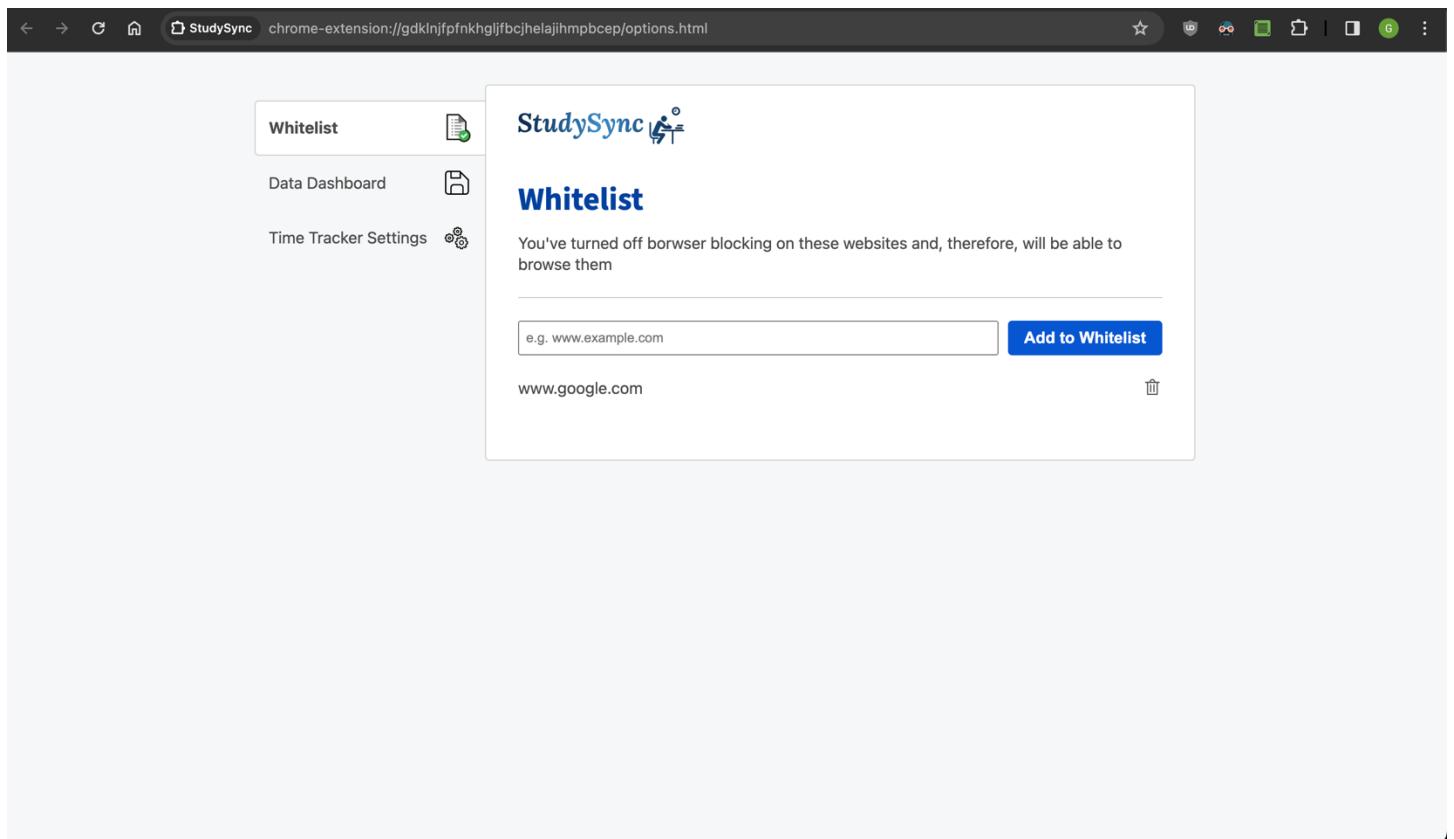


Figure 31: Whitelist Page.

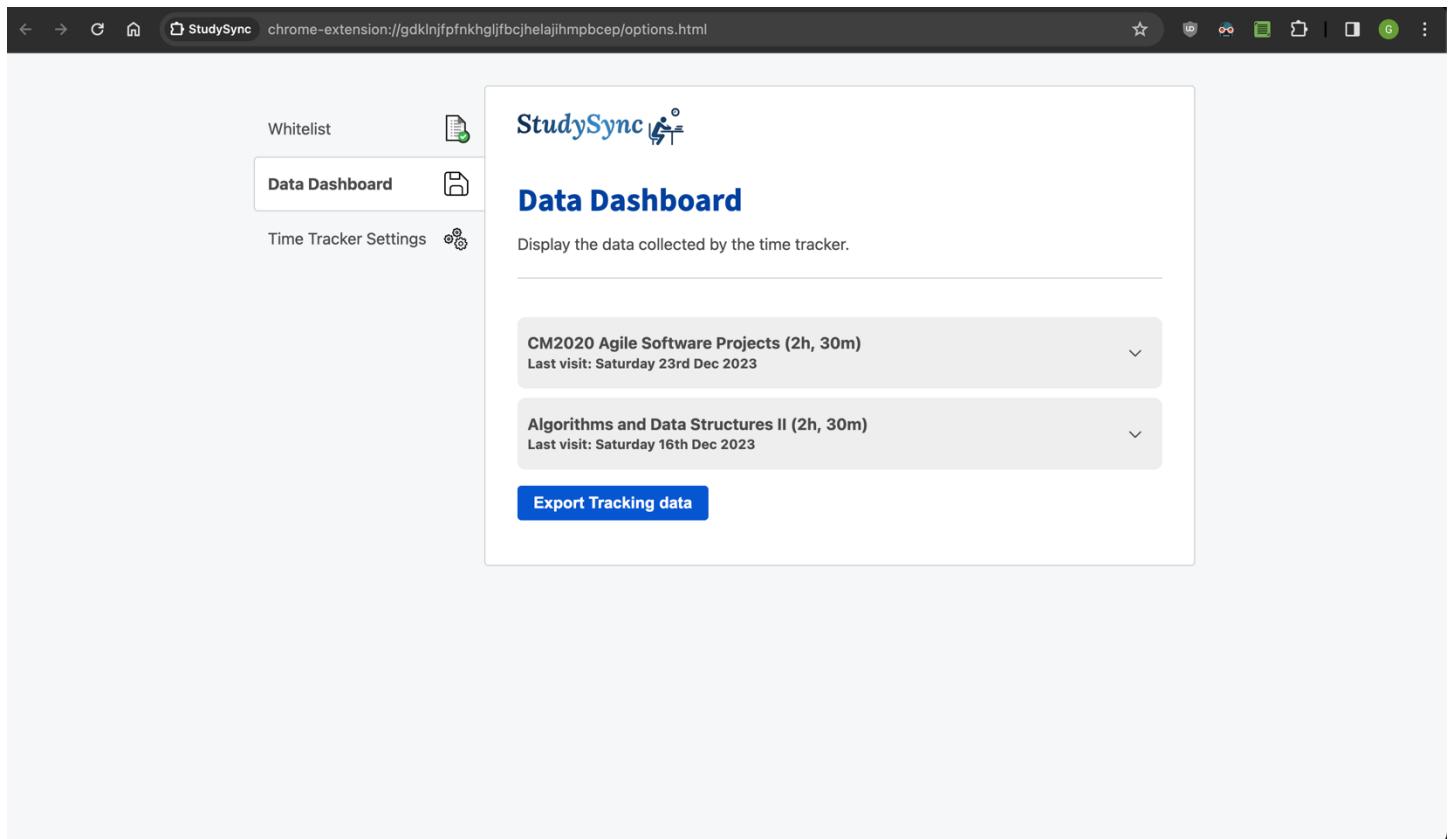


Figure 32: Data Dashboard Page.

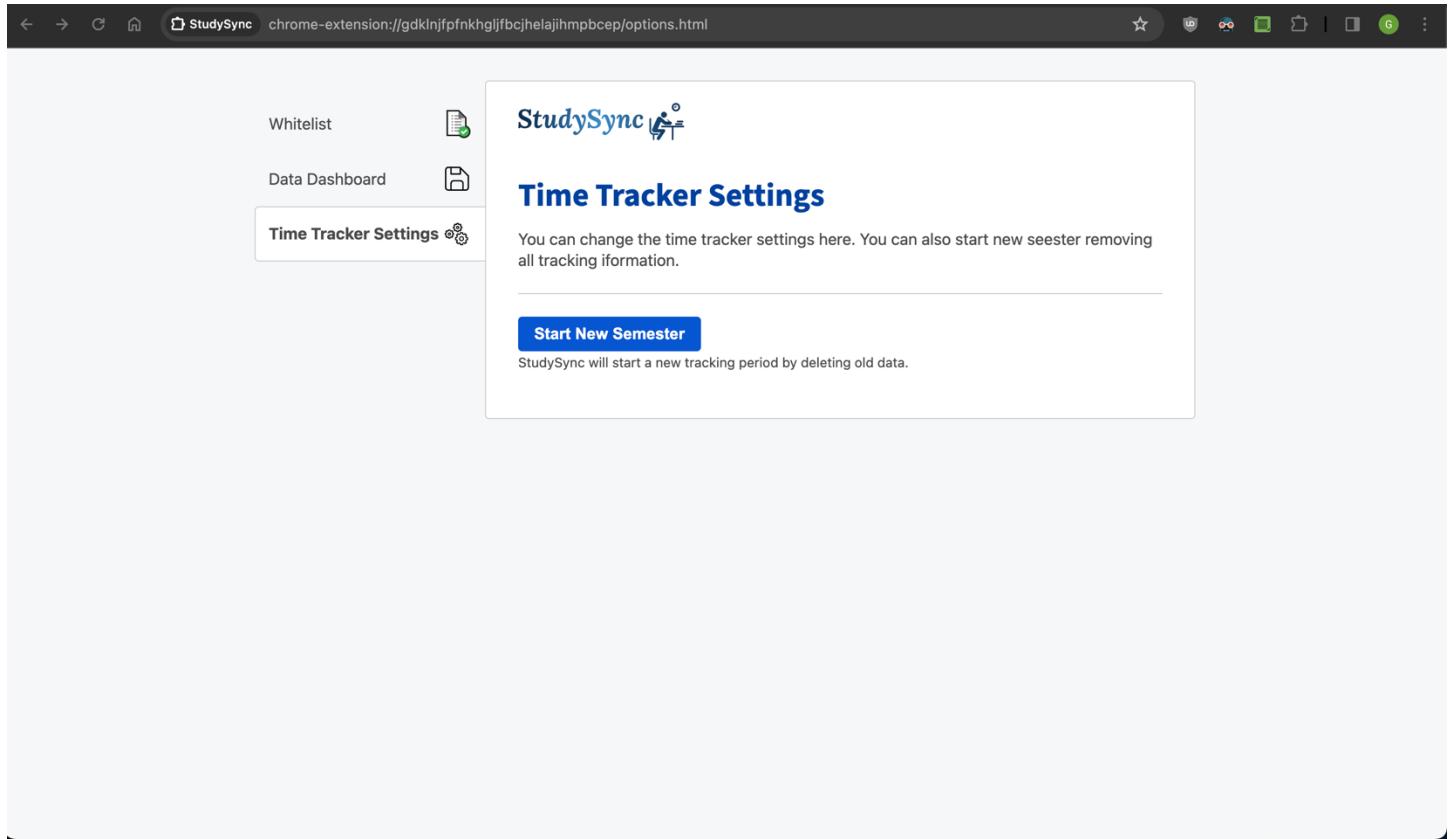


Figure 33: Settings Page.

## 5.4 High-Fidelity Prototype Questionnaire

The questionnaire validated the direction we took with our high-fidelity prototype. The users responded well to the design decisions and indicated the extension was easy to use and learn. Confirming we produced a low barrier to entry design that should flow into great functionality. Users indicated the page breakdowns were good features and did not have too many issues with the design. This is a positive step as the team heads into implementing the functionality.

## 6 Conclusion

Through quality research, elicitation, and requirements development, the team at StudySync has produced a project proposal that effectively outlines the work needed to complete the web extension. The proposal follows industry standard practices. We are particularly proud of how we identified and solved specific problems related to a niche group of users. A quality solution has been proposed, and we are pleased to be working on this extension. The project is on track to produce an MVP by the final deadline. The functional requirements and agile software plan give the team enough time and guidance to deliver the proposal effectively.

The team had to work through many of these requirements ad hoc as this was the majority of the team's first time tackling a project of this scope and size. The team struggled to ask quality questions in some questionnaires as we were not used to involving users in the development process. The team also struggled to maintain a quality time balance as the other coursework and life responsibilities got in the way. Lastly, the team struggled to get on the same page with some sections. The remote nature of the class posed a significant hurdle to getting this project done. Students range from very different time zones, and connecting was difficult.

While problems arose and adjustments had to be made, we are confident a quality project proposal has been made and look forward to implementing the complete solution.

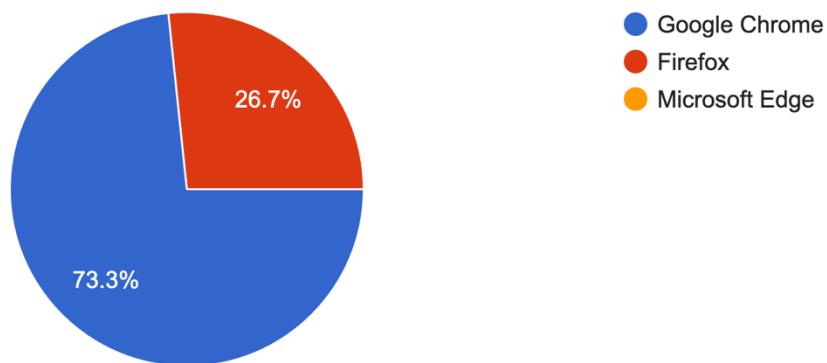
## 7 Appendix

### 7.1 Questionnaires

#### 7.1.1 Coursera Questionnaire

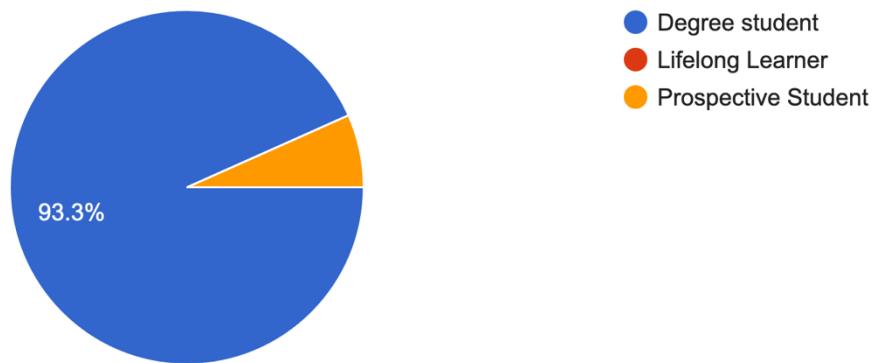
Which browser do you use to view the Coursera platform?

15 responses



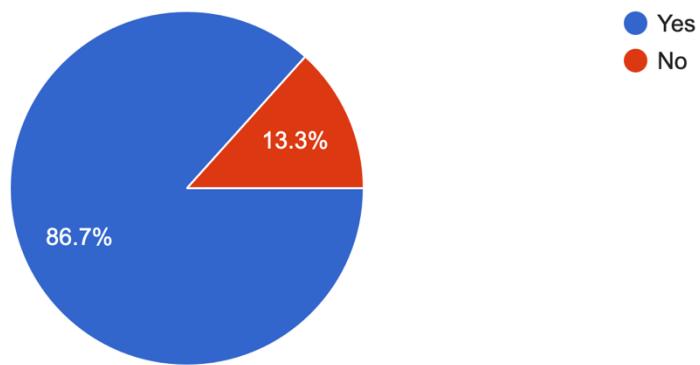
What relationship do you have to Coursera?

15 responses

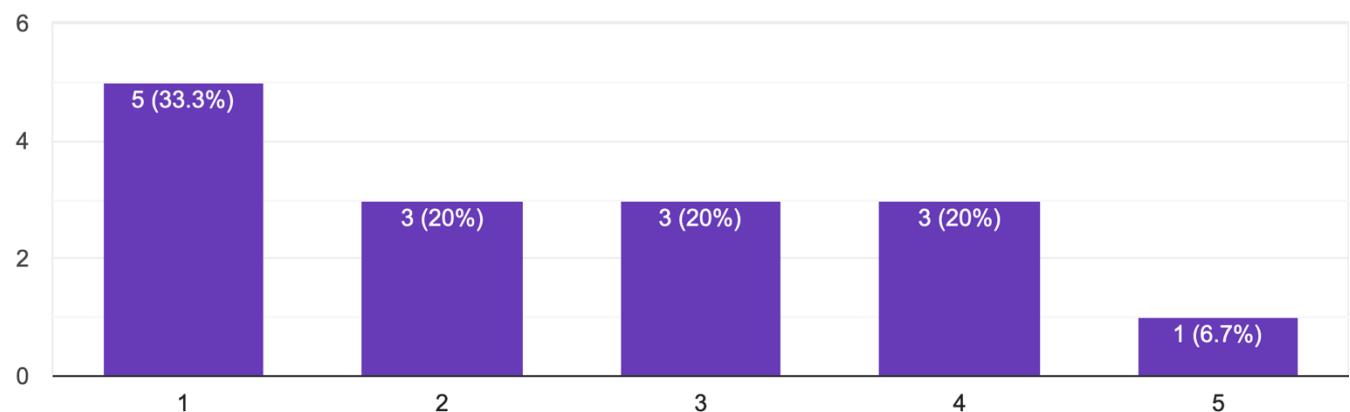


**Do you use web extensions with your browser?**

15 responses

**How easy is it for you to limit distractions while studying?**

15 responses



Do you use any tools or methods to limit distractions while studying? If so, please list them below.

12 responses

Pomodoro clock, and limit web extension.

i dont use any tools to limit my distraction

I use this app called Freedom to block apps on my phone

put phone in room

Pomodoro technique of "pure focus" for a set time (50 mins) and a (10 min) break following it. This is repeated for as many hours required in the session. In this way I push to finish the work done for the dedicated time in focus mode and take the pressure off in the "chill mode". All regulated with timers on my phone with an alarm to signal a shift between the zones

An chrome's extension called Nucleus

None

BlockSite extension, focus mode on laptop

Which websites, if any, are a distraction to your study time on Coursera? i.e. reddit.com, facebook.com, etc.

14 responses

reddit, twitter, linkedin, and google.

youtube reddit whatsapp

youtube, reddit, sometimes steam to sneak a match in.

Twitter, Twitch

instagram.com and youtube.com

youtube

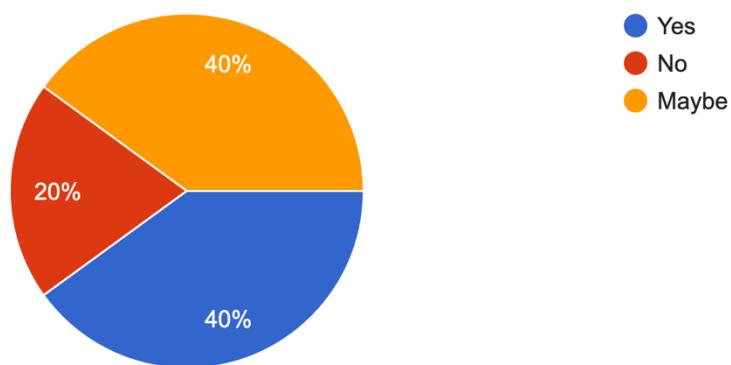
youtube.com is my biggest threat when it comes to distractions. For while I'm able to manage my time, it would be the hardest to rip myself from

Youtube.com and LinkedIn.com

YouTube

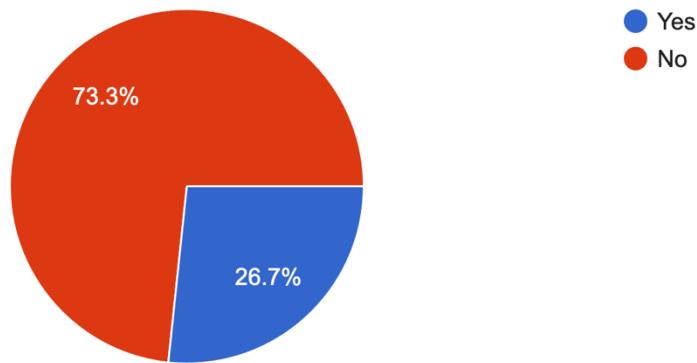
If a Coursera integrated web blocker existed would you add it to your web extensions / study tool-set?

15 responses



**Do you track your time spent on the Coursera platform?**

15 responses

**You Do Track Study Time****What tools or methods do you use to track your study time?**

4 responses

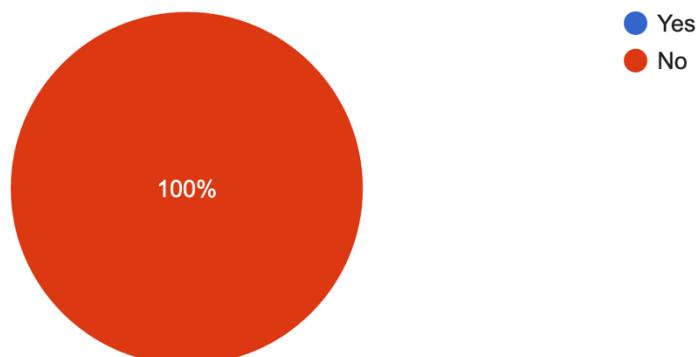
Toggl

i use toggle to track my time

Timer on phone app with a document counting each "study sprint" (50 mins) I spend working on my degree

**Does Coursera provide enough study time tracking analytics to meet your needs?**

4 responses



### What would you look for in a Coursera based time tracker?

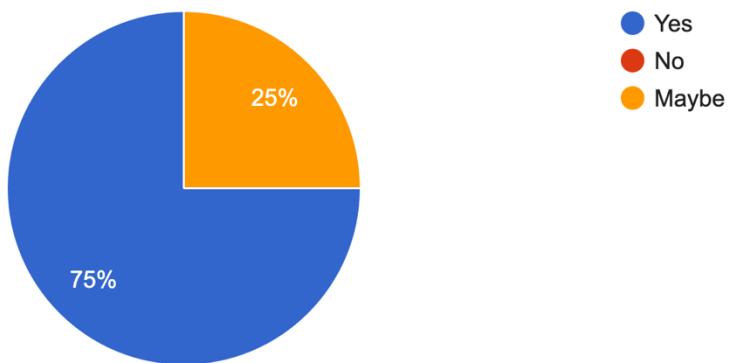
1 response

How many "sprints" (50 min sessions) I dedicate a day. Maybe even some analytics presenting averages to show I'm doing what I'm supposed to be doing (struggling with imposter syndrome, it's handy to be able to show my eyes I did a good amount of work that day/week by visually showing the hours I did)

---

### Would you consider using a time tracker which is better integrated with the Coursera platform?

4 responses



## You Do Not Track Study Time

Why do you not track your study time?

8 responses

I've never seen the value in tracking my study time. Especially during the completion of the early courses.

i do track my time to ensure that im working fast enough to reach my goal by the end of the day

My goal is to study the provided content within the general timeline of the semester. How many hours it takes for me to do that is not very relevant to my process.

I set broad goals

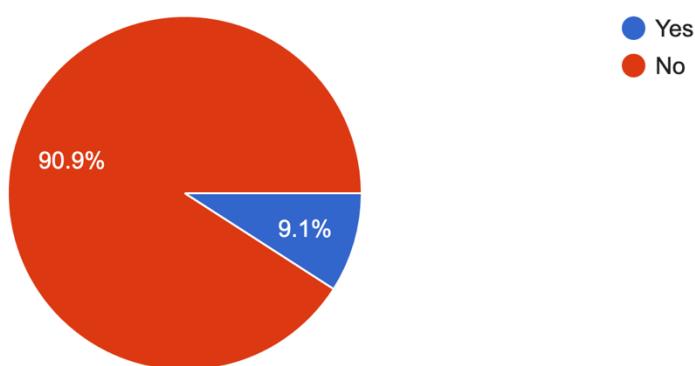
I don't track the time but I track what I have studied. The amount of time spend studying is not equivalent to how much you learnt something. You could have spent an hour repeating the same videos simply due to the fact that you did not understand anything

idk

haven't found it helpful & the aspect of tracking my study time induces stress vs just enjoying the learning process

Does Coursera provide enough time tracking analytics to meet your needs?

11 responses



### What would you look for in a Coursera based time tracker?

8 responses

A Coursera time tracker should have information based on your study time per course and where you spend time in each course. Like reading, watching videos and so-on.

not sure, dont think its a necessary feature at all.

It would be interesting (and humbling) to see how long I spend with the site open vs. how long I spend actually engaging with the course content.

Ease of use

TWO features, I would like to have a way to save the total amount of hours expended on each individual course as well as a method to stop and start the timer at my disposition.

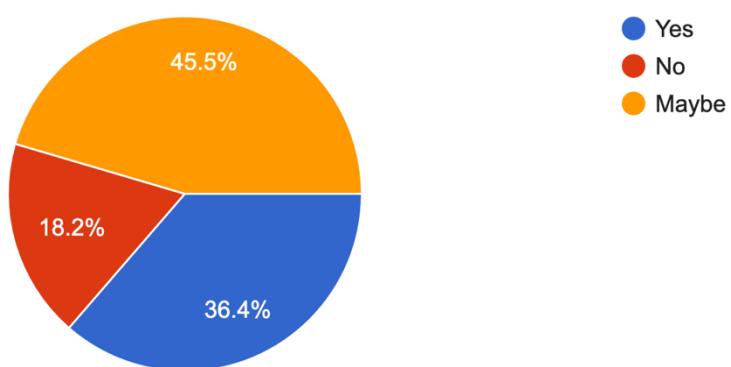
None

not sure, time focused, time not focused

analytics and focused time versus distracted time, hard blocker with a timer so user cannot go into any other

### Would you consider using a time tracker which is better integrated with the Coursera platform?

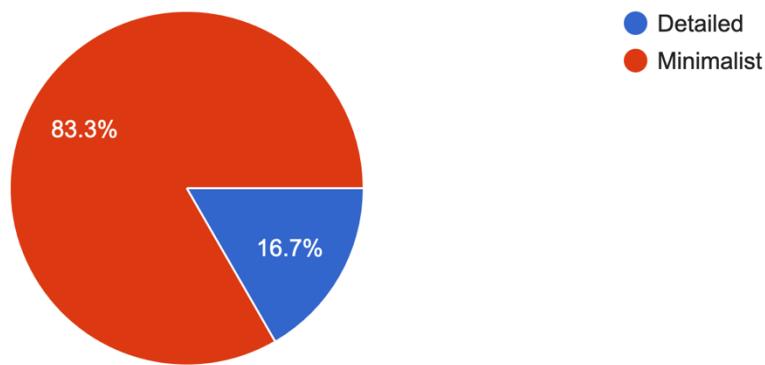
11 responses



### 7.1.2 Low-Fidelity Prototype Questionnaire

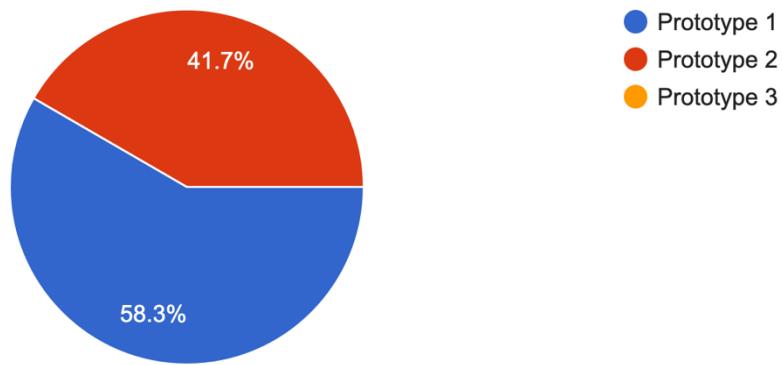
Do you prefer a detailed or minimalist web extension design?

12 responses



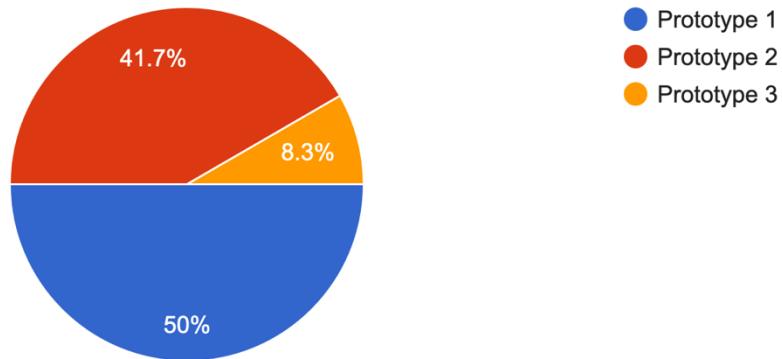
Which prototype displays the information you expect from a web blocker/time tracker web extension?

12 responses



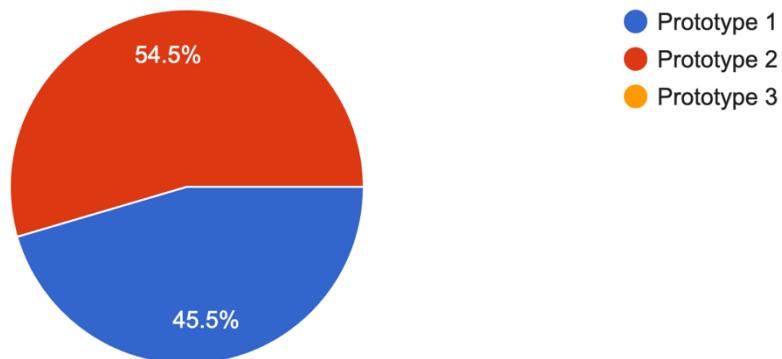
Which prototype design behaves in a manner which you expect from this type of web extension?

12 responses



Please choose the most user-friendly prototype.

11 responses



Is there anything missing from the proposed prototypes?

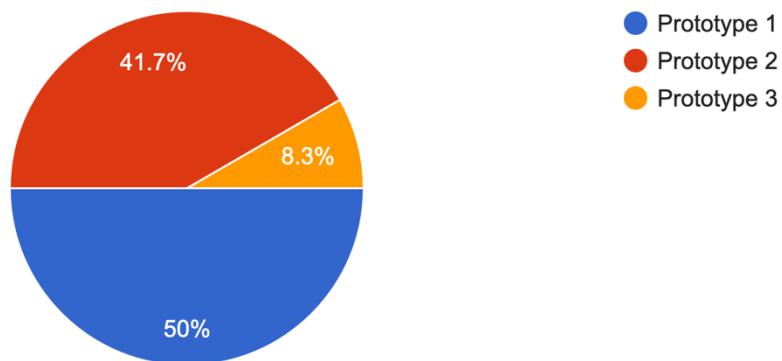
2 responses

None

Overall, all prototypes meet my expectations and more. I like the breakdown the prototype 1 offers for particular stats (semester/course/misc.). I like the on/off toggler prototype 2 offers for websites and the way the tasks and duration are structured. I like the conciseness of prototype 3. Prototype 2 hits more markers

Please choose the prototype you find to be the most straightforward.

12 responses



Are there any aspects of the design that could be improved?

2 responses

N/A

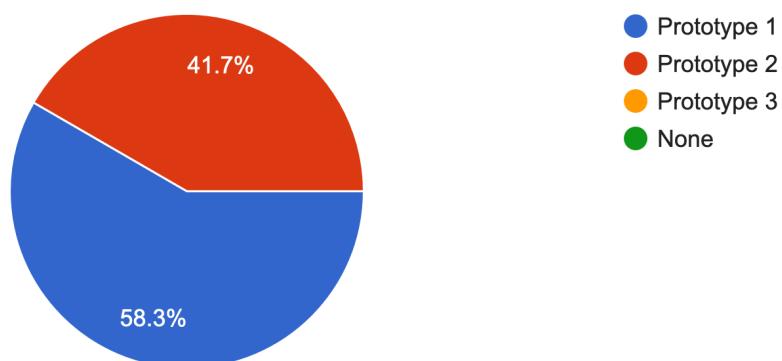
For prototype 1, I immediately expect to see the most relevant information at the top. The first thing I hope to see is the stats/timer, not buttons. Swapping the feature order would make a world of a difference.

For prototype 2, similar advice by moving the add tasks button to the bottom of the tasks section (everything else is really well done so I find this prototype most desirable).

For prototype 3, while it's concise and straightforward, it doesn't offer the stats as the others offer so it's the least desirable to me.

Which one of the prototypes seem to provide a solution to the problem statements?

12 responses



## Do you see any glaring issues with the proposed prototypes?

3 responses

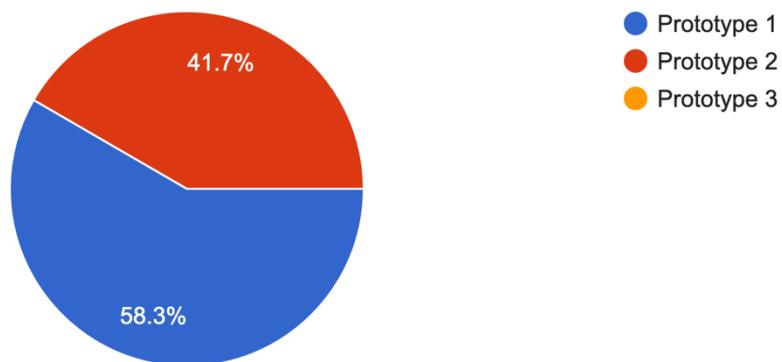
N/A

As mentioned before, just the layout and order of the features can be restructured

Prototypes seem to be inconsistent.

## Please choose the prototype that you consider to be the best option.

12 responses



If you have further feedback that can help us meet your expectations please enter it below.

3 responses

Great ideas! Integration with Notion and Toggl would be much appreciated.

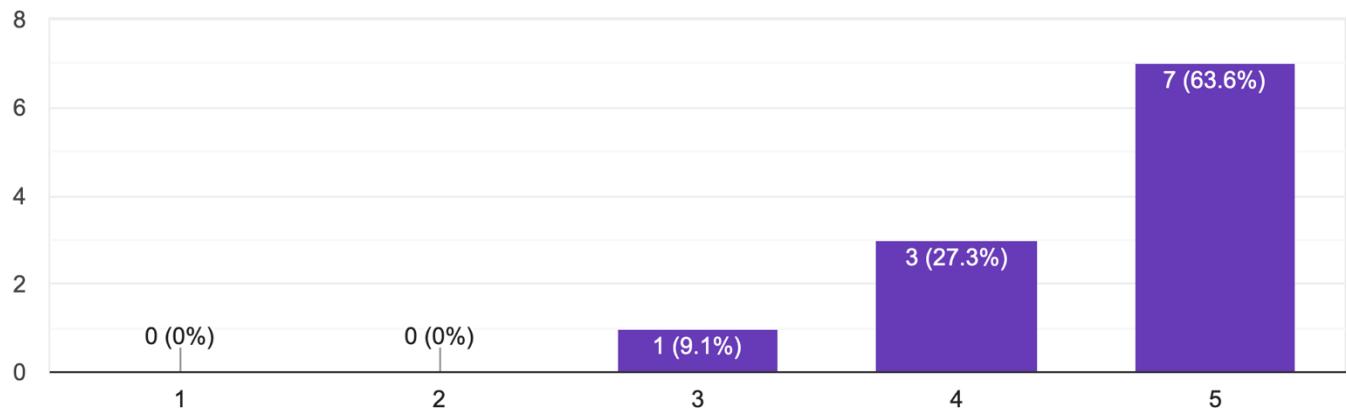
The features included all are incredibly useful. I would love to see them all implemented just with good consideration of what users would consider accessing first, second, last, etc. to ensure the most demanded features are easily accessible. Keep settings for last as always but that was implemented well in the prototypes given

Maybe add a pomodoro clock to the app?

### 7.1.3 User Requirements Questionnaire

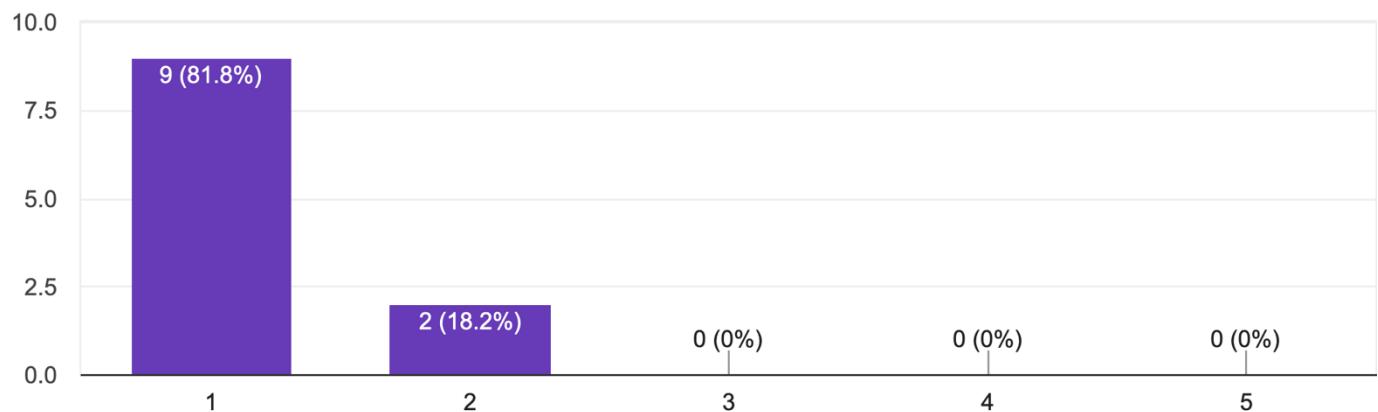
As a student, I want to be able to toggle the whitelist blocker to change focus from study sessions to a different task.

11 responses



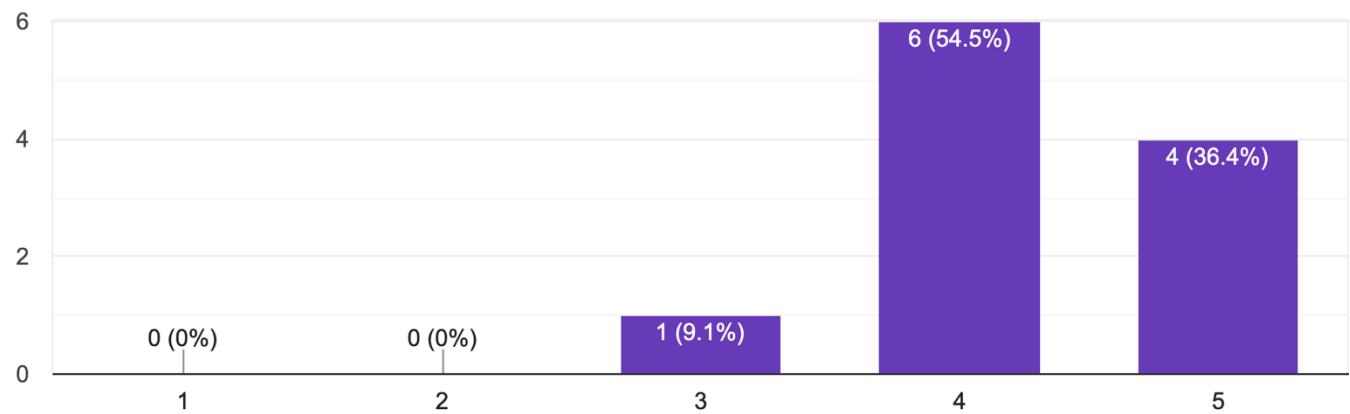
As a student, I want to be able to track my study time using a the Pomodoro technique.

11 responses



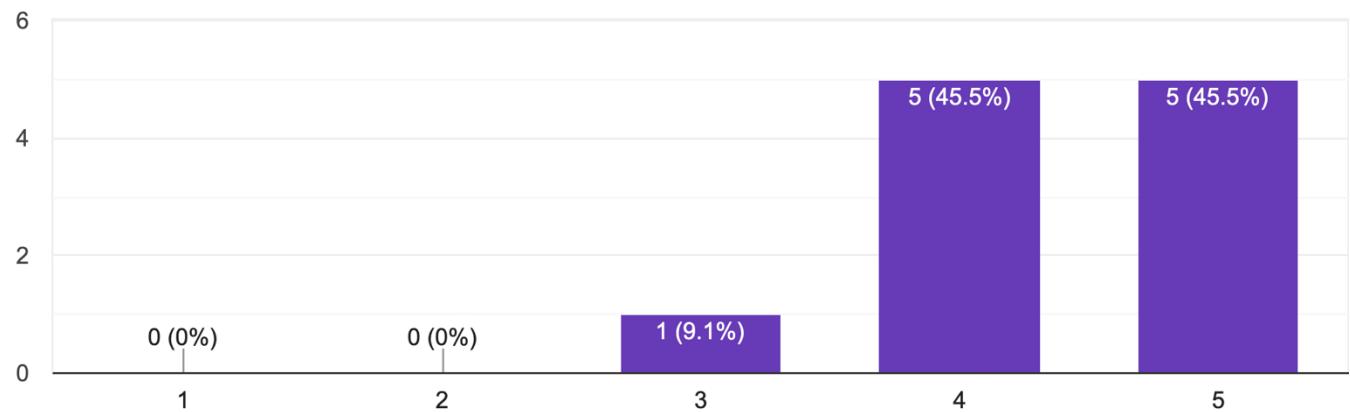
As a student, I want to navigate to an allowed URL so that I can further my study session.

11 responses



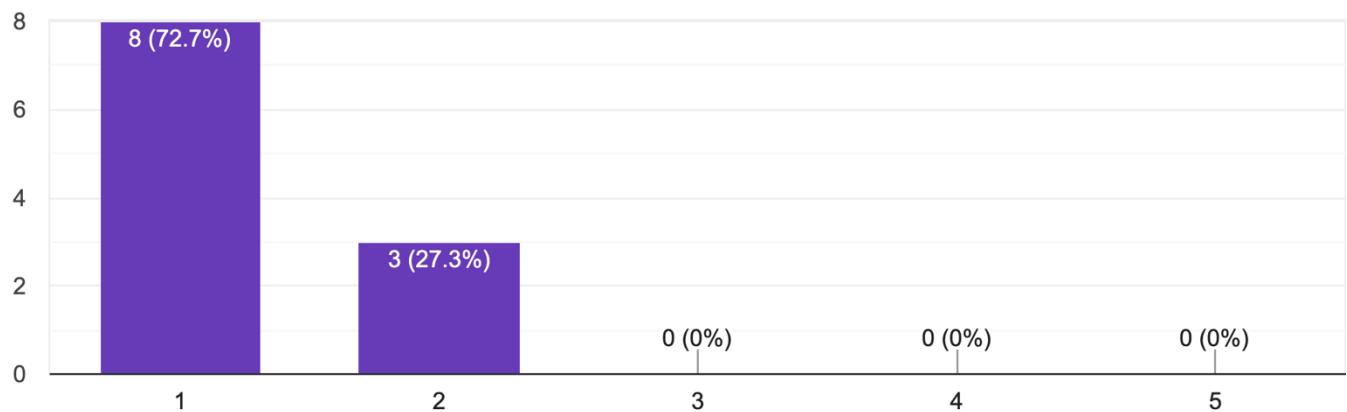
As a student, I want to whitelist a URL I need to visit so that I can study the material stored at that URL.

11 responses



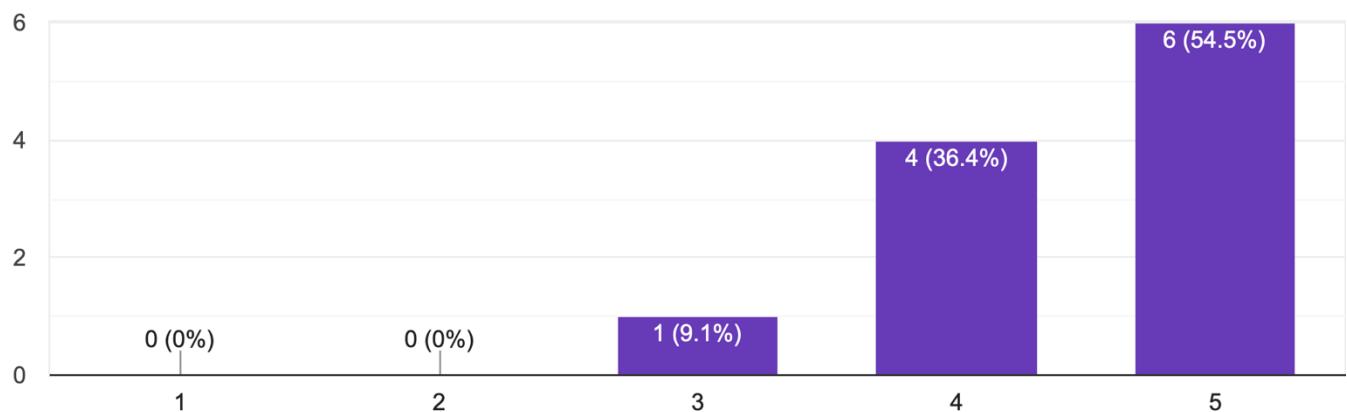
As a student, I want to automatically download the transcript for the current video.

11 responses



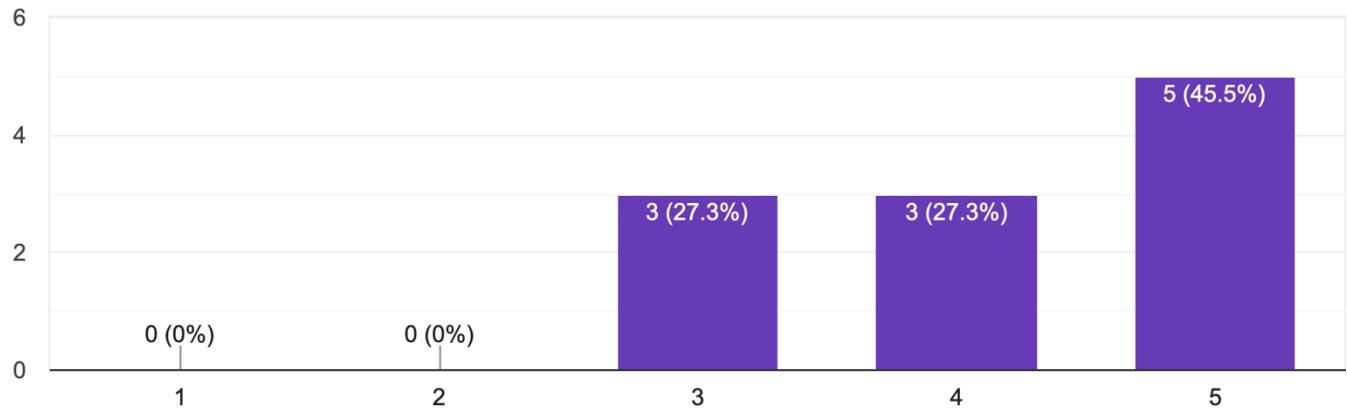
As a student, I want to remove URLs from the whitelist so I can terminate access to a distracting website I needed to access briefly.

11 responses



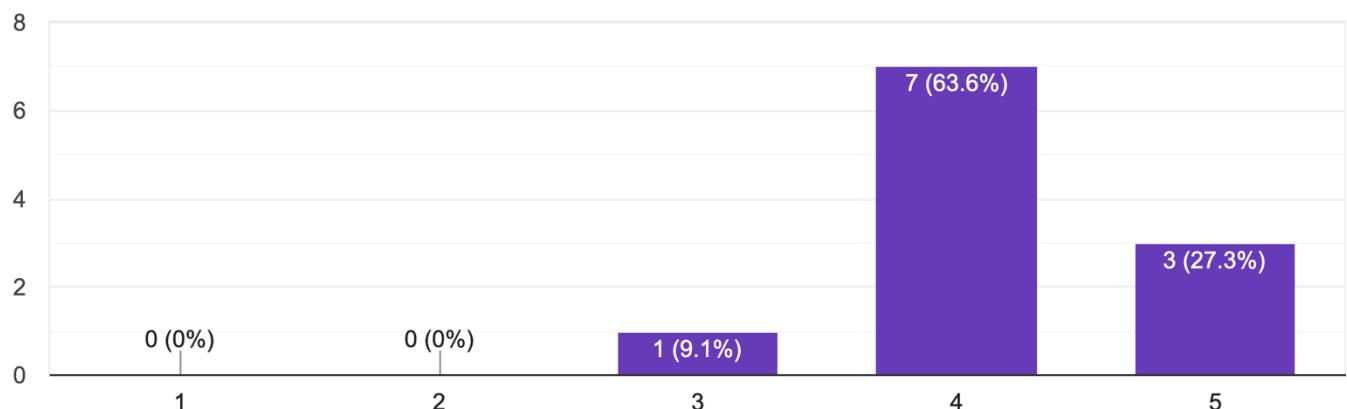
As a student, I want to study a course on Coursera and have that time tracked so I can gain insights into my study habits.

11 responses



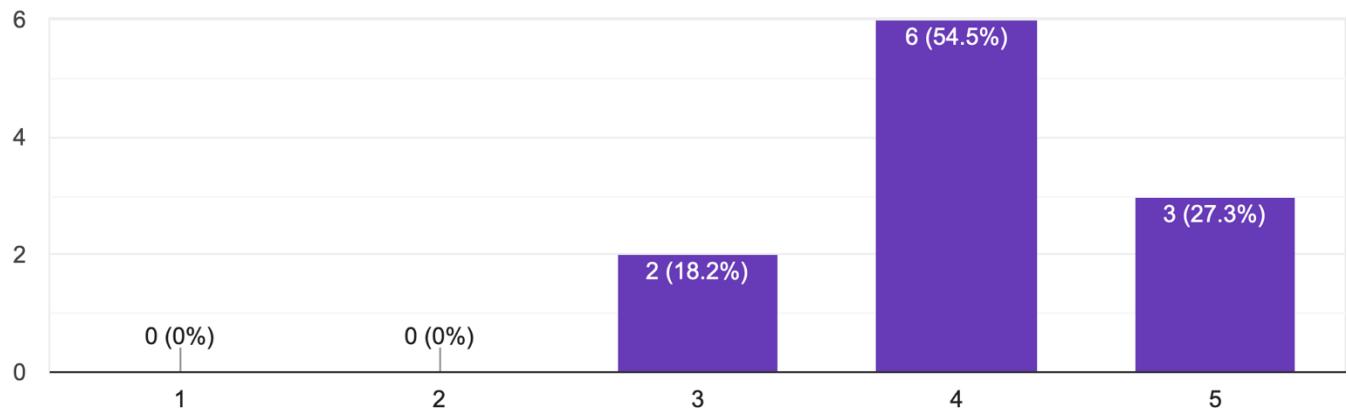
As a student, I want to view my time-tracking data in a digestible format to gain quick insights into my study habits.

11 responses



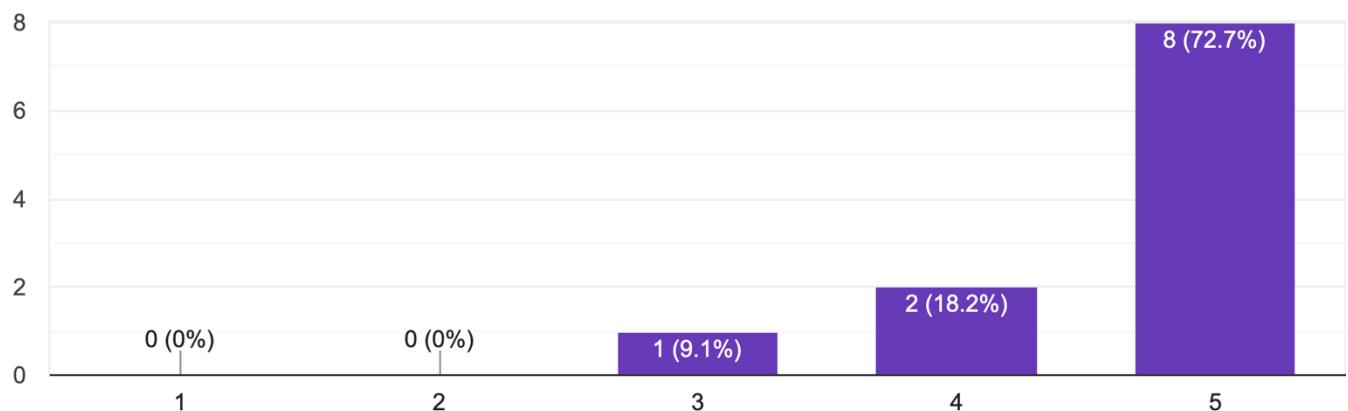
As a student, I want to export my time tracker stats so that I can further explore the data using external tools.

11 responses



As a student, I want to adjust the time tracker settings so that I can tailor the extension to my study sessions.

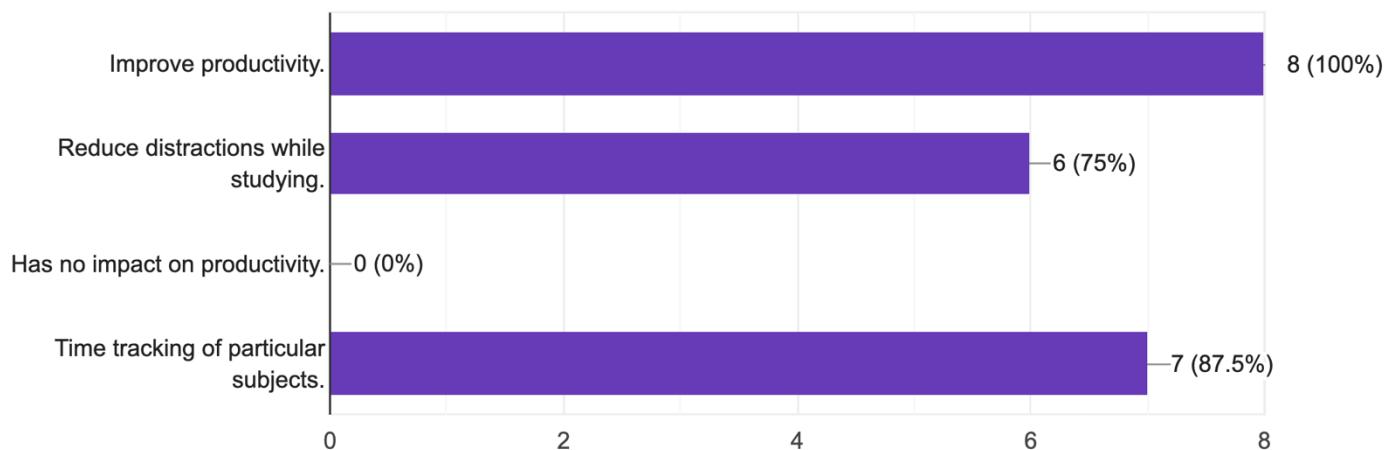
11 responses



#### 7.1.4 High-Fidelity Prototype Questionnaire

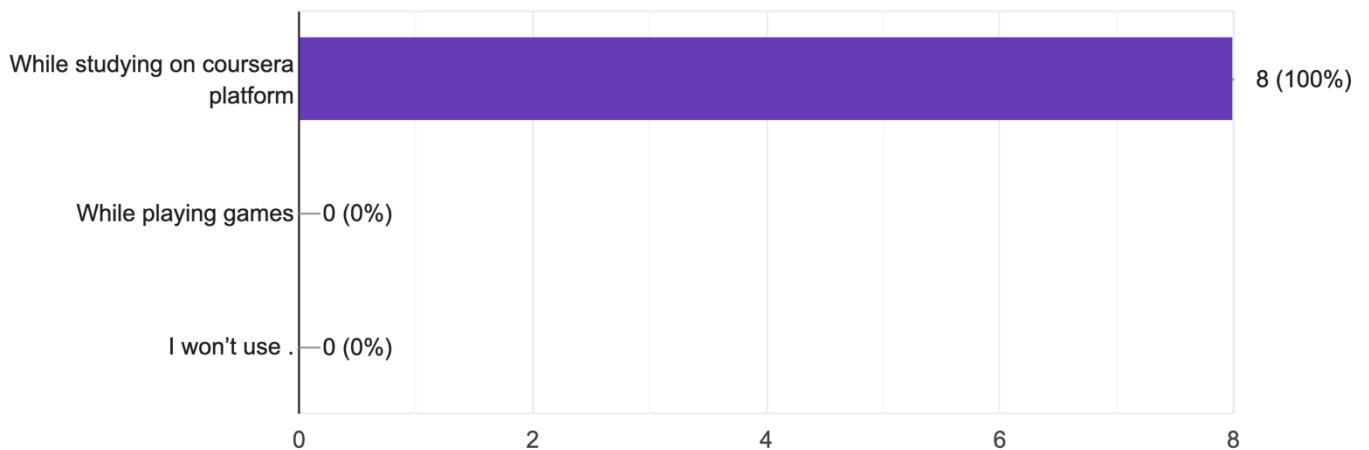
##### 1. What do you think Study sync is for?

8 responses



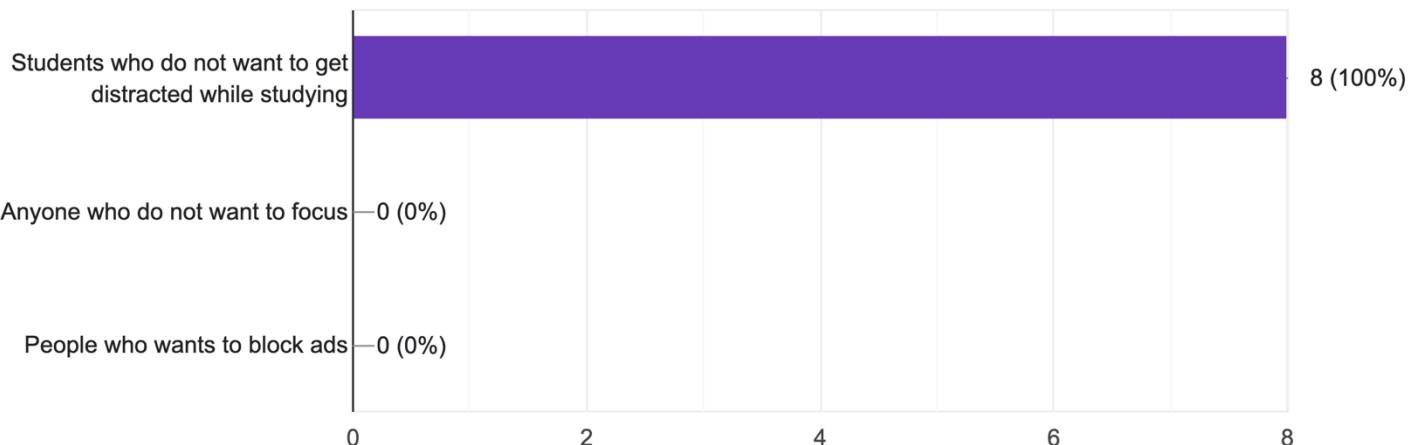
##### 2. When would you use Study Sync?

8 responses



### Who do you think Study Sync is for?

8 responses



Extension blocks all the obvious websites that creates distraction. Do you think this feature is useful?

### Yes or No with reason?

5 responses

Yes

Yes

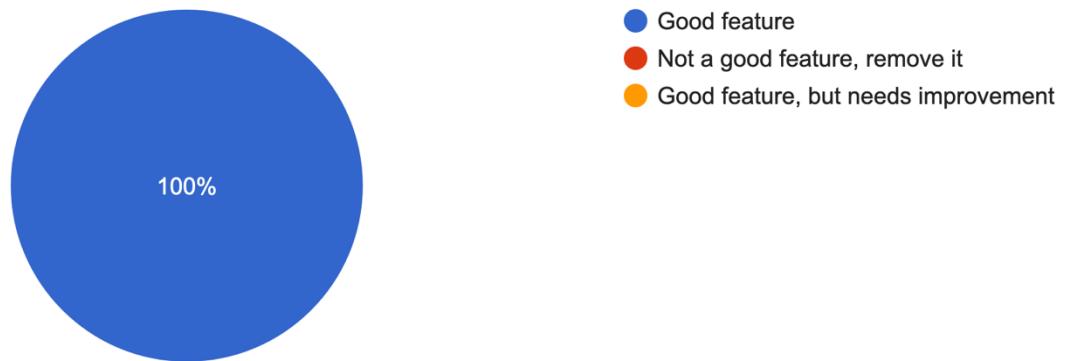
Yes, it is a great feature!

Yes it is a great feature for a productivity tool like this

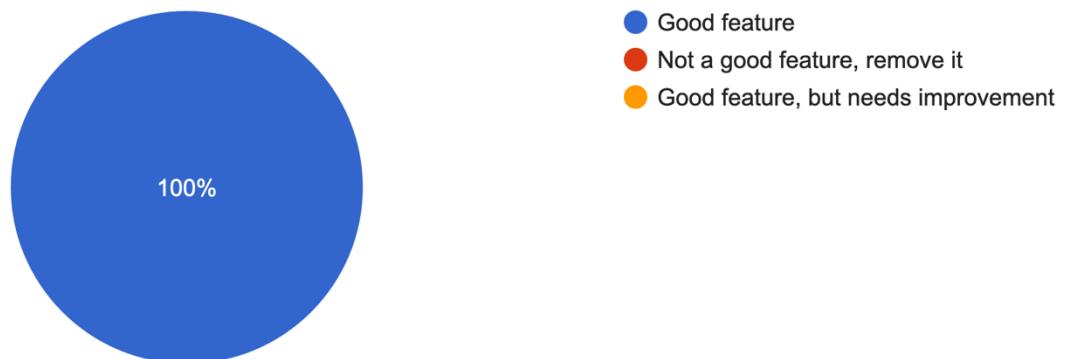
Great feature

**Main menu displays whitelisted sites**

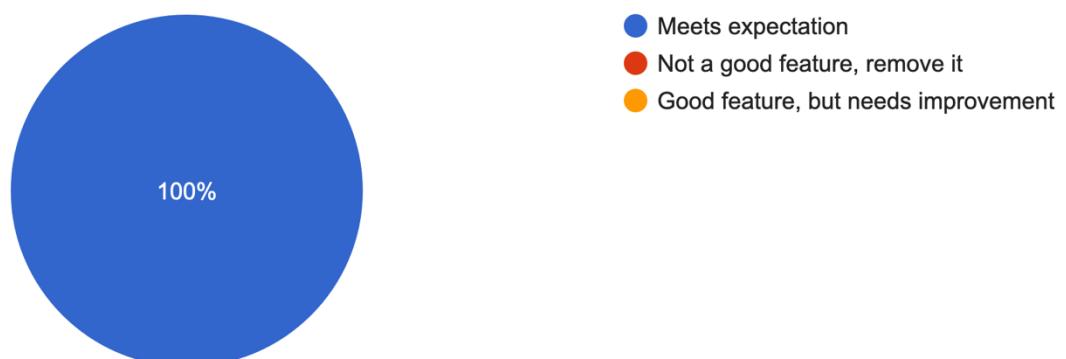
8 responses

**Main menu displays whitelisted sites**

8 responses

**User will be able to navigate to the settings page from main menu.**

8 responses



### What needs improvement in main menu

5 responses

Very sleek design

None

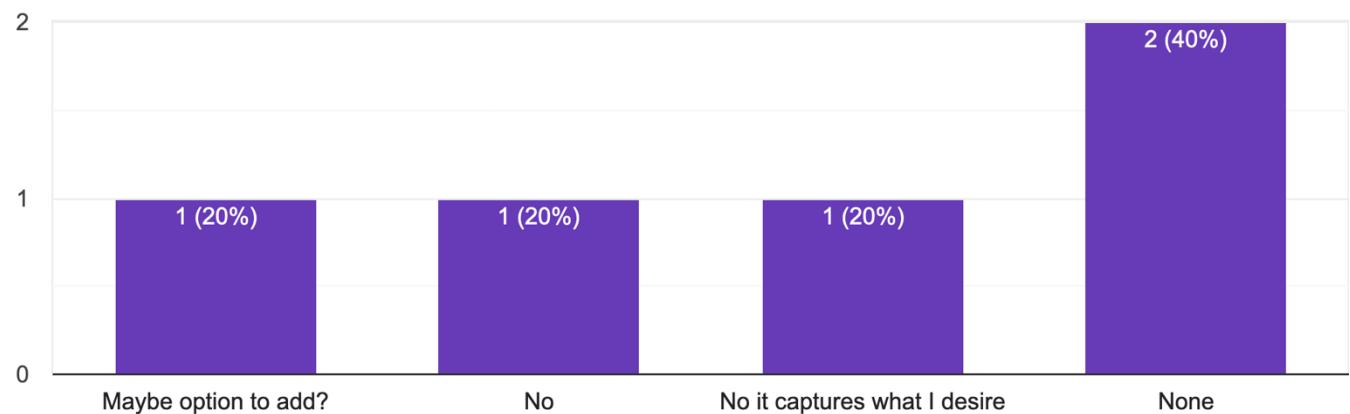
NA

Main menu is clear

Nothing

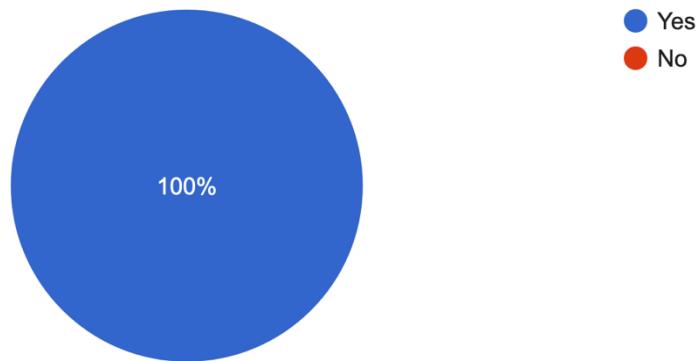
### Would you like to add more stats to the tasks than available?

5 responses



Would you like to export tracking data for further analysis?

8 responses



By default, when the extension is ON it blocks all the websites, You can turn on only those websites that you need at that point of time.

Are you happy with this approach? Yes or No with reason?

5 responses

Yes

Yes it is a great approach to blocking websites.

yes

User is given an option to delete the whitelisted website. Does it meet your need? Yes or no what is expected?

5 responses

Yes

yes

User is given an option to reset all the activities from previous semester so he can restart fresh. Does it meet your expectation? Yes or no what is expected?

5 responses

Yes

It meets my expectation

yes

Anything that surprised you. If so what?

5 responses

I got a wow feeling

Good design and I would definitely use it

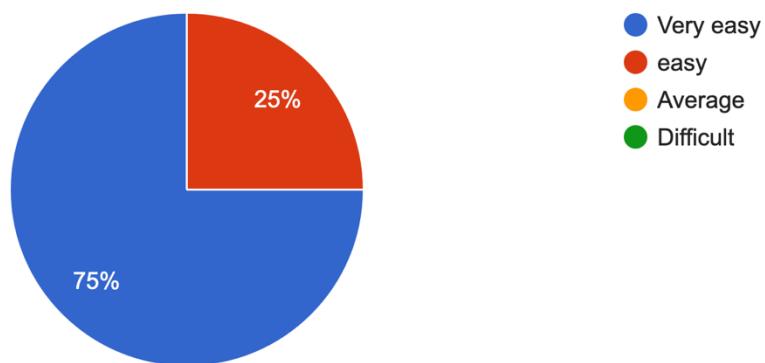
Nothing surprising.

no

No

### How would you rate ease of use for Study Sync?

8 responses



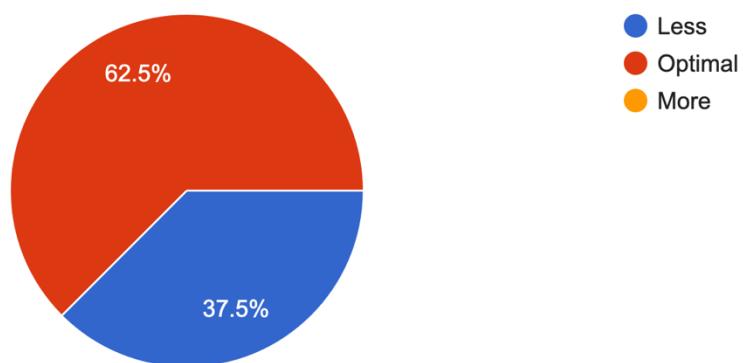
### If difficult, what was difficult about Study sync?

4 responses

- None
- No
- Null

### How long did you take to get familiar with study sync?

8 responses



## How would you improve study sync?

5 responses

Separation of concern for stats from the settings menu

Make the product commercial grade

It's great!

No

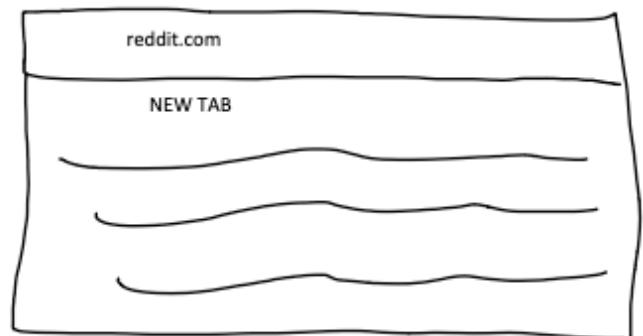
Nothing!

## 7.2 Storyboards

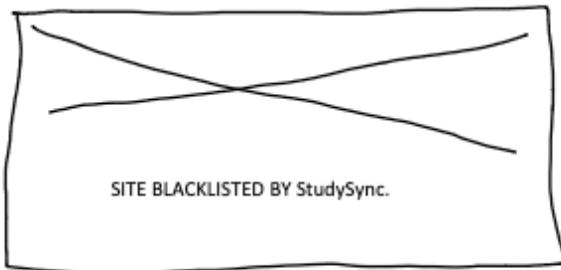
### 7.2.1 US-2 Storyboard



Dave wished to start a study session. To do so he navigates to coursera.com via his web browser. Coursera is his online learning hub for his Computer Science degree.

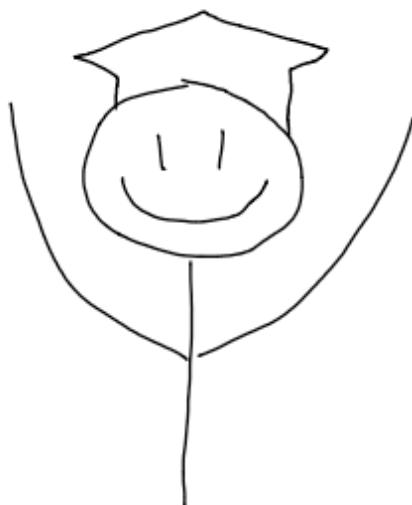


Upon landing on the Coursera web page Dave remembers his favorite hockey team is currently playing their division rivals. He opens another tab on his web browser and navigates to reddit.com to get the latest updates on the game.



SITE BLACKLISTED BY StudySync.

Upon navigating to reddit.com the StudySync web blocker kicks into effect and blocks access to reddit.com. As it is not a Coursera affiliated link or whitelisted by Dave in the StudySync settings.

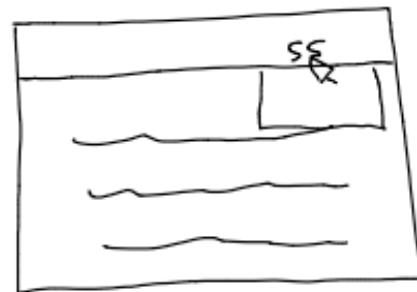


Dave closes the reddit.com tab and remembers he planned on starting a study session. The StudySync web blocker successfully stopped his procrastination attempt and focuses him on his studies.

## 7.2.2 US-6 Storyboard



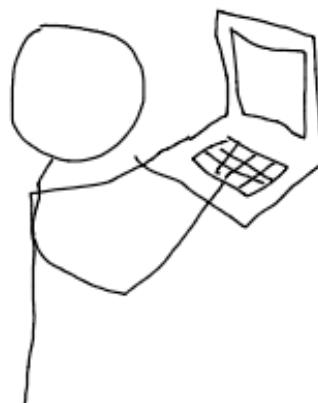
Kris is studying on Coursera for one of his degree's courses. He wonders if he has been spending adequate time spacing out his studies between classes.



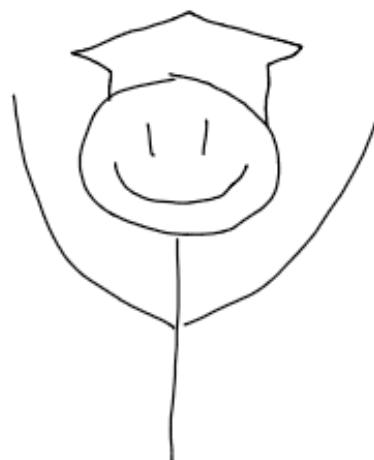
He navigates to the StudySync web extension and clicks on the StudySync logo. Upon clicking on it he is shown an option to go to the Coursera time tracker.



The StudySync dashboard allows Kris to view his study habits between all his Coursera provided classes. including time spent on readings, videos, and quizzes. This allows Kris to see that he's spent too much time on course X and needs to prioritize his other courses.

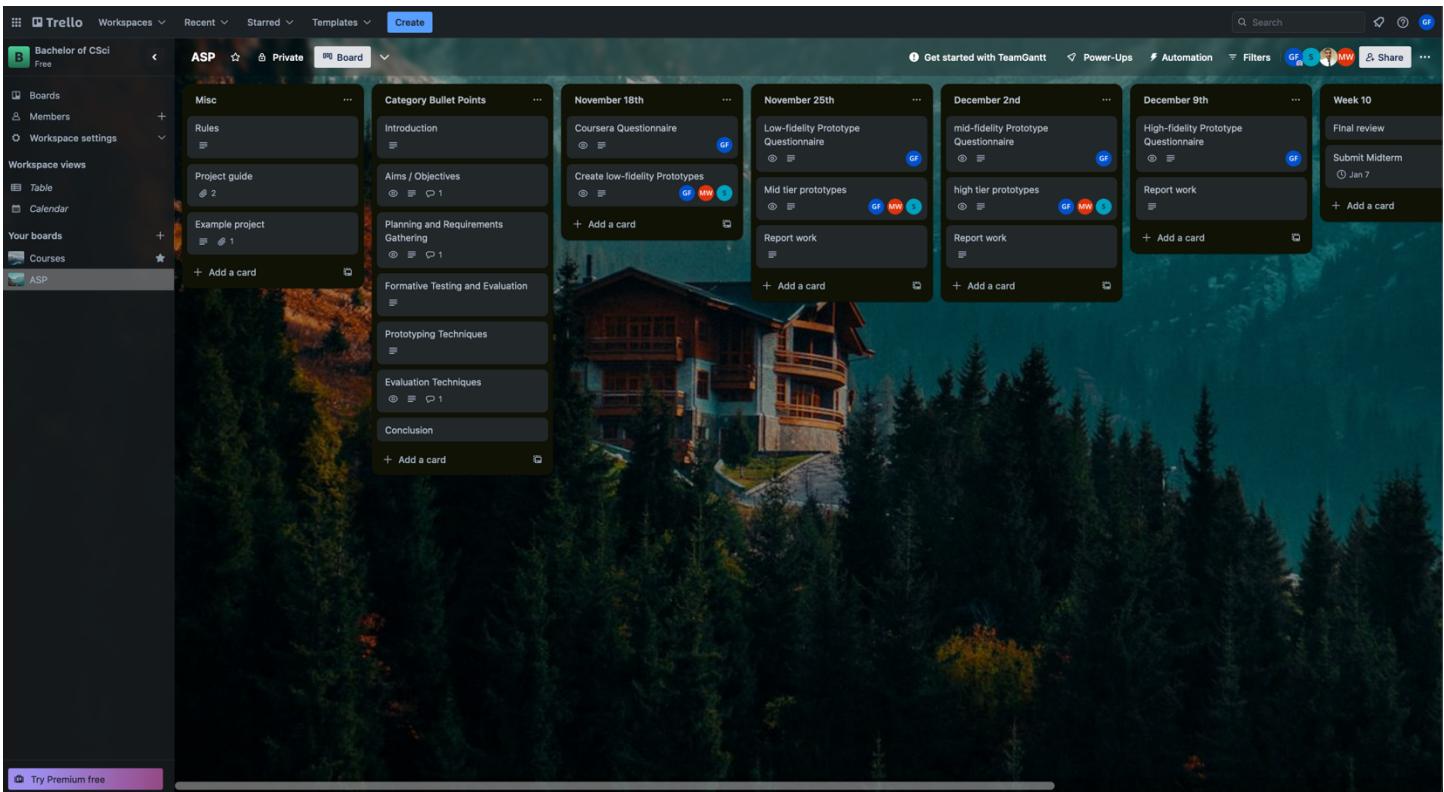


Kris through the use of the data analytics dashboard provided by StudySync, switches his course priorities and starts focuses on his neglected courses.



Kris manages to implemented successful study skills and habits through the time tracking tool provided through the StudySync web extension. This has improved his time studying with Coursera.

## 7.3 Trello



## 7.4 Slack

Hashem Ramadan, Mason Waldapfel, 2 others ▾

Appreciate the work!

Tip: Try to search this channel

December 24th, 2023

Hashem Ramadan 12:05 PM Hey there, still working on the settings page .. will post it at some point this week

December 26th, 2023

Hashem Ramadan 12:39 AM we are getting there  
image.png

December 27th, 2023

Hashem Ramadan 9:45 AM seems we will not be able to categories it per semester > but we can track first time you start a course > and last time viewed it  
image.png

December 27th, 2023

Hashem Ramadan 1:11 AM added the 3 tabs as a separate standalone page  
<https://github.com/hashem59/Study-sync-chrome-extesnition/tree/main>

December 28th, 2023

Gage Fleming 1:14 AM Thanks for the update Hashem. I'll take a look at the new prototype tomorrow!

Sunidhi Abhanze 2:13 PM

Hashem Ramadan, Mason Waldapfel, 2 others

Tip: Try **F** to search this channel

**S Sunidhi Abhange** 3:52 AM Hi Gage.

Great job on the user stories. The user story you provided covers all the expected information. I have a few points to add to each user story about the benefits/ results. These additions highlight the positive aspects and advantages of each user story.

Hi all,

I suggest a weekend huddle to assess our progress, discuss potential additions to the report, and ensure we're prepared for the midterm. Let me know if this works for you all?

**Gage Fleming** 10:49 PM Hi Sunidhi,

A meeting on Saturday sounds good. Another webinar was also released yesterday which I think we should all watch tomorrow!

Meeting at the same time Saturday?

1 1

December 8th, 2023

**Mason Waldapfel** 3:12 AM Sounds good

**S Sunidhi Abhange** 3:57 AM Yes sounds good

December 9th, 2023

**Gage Fleming** 12:44 PM Quick note:

Gage - Functional / Nonfunctional requirements SUNDAY NIGHT  
 Sunidhi/Mason - User stories questionnaire NEXT WEEK  
 Group review midterm assignment December 11th  
 Hashem - High fidelity prototype based on functional and non-functional requirements  
 Sunidhi/Mason - Questionnaire on high-fidelity prototype  
 Gage - Report rough draft finished  
 Group - Feedback  
 Submit January 8th.

**A huddle happened** 12:58 PM You, Sunidhi Abhange, and 2 others were in the huddle for 13m.

**Gage Fleming** 1:03 PM

Hashem Ramadan, Mason Waldapfel, 2 others

**S Sunidhi Abhange** 12:59 AM @Hashem Ramadan Please can you share HiFi prototypes here in the chat. Will create the questionnaire before today EOD. (edited)

**1:01** Thanks Gage. Please can you share the latest draft of the report that you have.

**Hashem Ramadan** 1:02 AM <https://github.com/hashem59/Study-sync-chrome-extesnction/tree/main>

In Readme tried to explain how to use it on your chrome

**S Sunidhi Abhange** 1:03 AM Thanks Hashem

**S Sunidhi Abhange** 1:34 AM Extension looks good Hashem

**S Sunidhi Abhange** 3:46 AM This is the high fidelity prototype questionnaire. Please can you give any feedback or improvement. Please let me know if you are able to access the link.  
[https://docs.google.com/forms/d/e/1FAIpQLseAGE3e5xKmmaDPxOE-EZvay\\_r\\_gRmGUca5R3r9NheizuWx-g/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLseAGE3e5xKmmaDPxOE-EZvay_r_gRmGUca5R3r9NheizuWx-g/viewform?usp=sf_link)

Is there anything else you need me to do, please let me know?

**S Sunidhi Abhange** 4:04 AM @Hashem Ramadan pls could you add the following logo in the high fidelity prototype. (edited)

[studysync-high-resolution-logo-transparent \(1\).png](#)



**Hashem Ramadan** 4:05 AM Sure

That logo is for popup and details page, what about the small extension icon on the top chrome bar

It could be an icon with double s

**S Sunidhi Abhange** 4:06 AM we will create the logo for submenu later on but for now add it to the main menu (edited)

**Hashem Ramadan** 10:48 AM [image.png](#)



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