

Study Aid Tool - Group 27 BACK PACS

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Abstract—This document is a model and instructions for L^AT_EX. This and the IEEEtran.cls file define the components of your paper [title, text, heads, etc.]. *CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.

Index Terms—component, formatting, style, styling, insert

I. INTRODUCTION

A. Motivation

Students need to remove all distractions to study effectively. However, the process of setting up a relaxing environment for a session of focused work can be tedious and repetitive. Many students prefer to study with music in the background and with a nice wallpaper. When working on large problems or many problems, they like to break them down into smaller tasks in a todo list. It has become increasingly popular to use time-boxed techniques to maximise efficiency and focus, such as Pomodoro. Therefore, students may need to juggle many apps simultaneously, which can be distracting and annoying.

A unique feature that the team thought would be worthwhile to introduce is the ability to change the background and music based on the user's current mood.

B. Goals

The goals for this project were separated by priority into must-haves, should-haves, could-haves, and nice-to-haves. The list of proposed goals for the project can be found in Table 1.

As a summary, the main goals for the project was the mood-based functionality, which interacted with the background and music, and the todo list. These were chosen as the main goals because the unique feature of a mood.... The todo list is one of the most important components needed when a student is studying as it allows them to track their goals and progress for the study session.

With the same reasoning, white noise and a timer were should have functionality, as they aid a user's study.

II. RELATED WORK

What has been done before? Compare it with your project.

BELOW IS ALL COPIED, NEED TO CHANGE AND MERGE WITH PRESENTATION

The preliminary market research revealed that no app exists with all the proposed app's functionality. However, some apps/services exist which partially provide one of the features from our proposed feature-set. Below is a discussion on other apps which offer our top three features.

Spotify provides in-app music recommendations based on the user's song history. Besides individual songs, Spotify

TABLE I
PROJECT GOALS.

Feature	Time Estimate (Hours)	Feature Description and Estimate Justification
Must-Haves		
Mood based music player and recommendations	20	Get moods/preference from a mood slider and generate a playlist using the Spotify API that can be played in the browser.
Mood backgrounds	12	Generate some backgrounds based on the mood sliders/settings. Uses the splash API to retrieve backgrounds based on the search term. Create a slideshow with customisable interval.
Todo list	10	The ability to add items to a todo list which can help the user keep track of their progress. Does not use third-party tools.
Should-Haves		
White noise	8	A feature that will generate white noise for the user to aid in their study. Simple white noise audio file that can play/pause. Reuse styling from the music recommender above.
Timer	6	A timer that can countdown and allow the user to keep track of time and perhaps implement study strategies like Pomodoro.
Could-Haves		
Whiteboard	8	A whiteboard that the user can use to draw and save some of the images to help with their study. Use Third party components.
Study statistics	15	Statistics that summarise the user's music time, study time, items added and completed. This can be used to help the student with seeing how much progress they are making.
User accounts	20	User accounts which remember the user's preferences, with login details, and the ability to access preferences from multiple accounts. Using a database over local storage.
Nice-To-Haves		
Music recommendations based on weather	10	Get the user location, and weather, then give a music recommendation using the Music Player already implemented.
Inspirational messages	5	Generating inspirational messages using API to display.

recommends playlists which we will reproduce in our app. However, Spotify does not have any mood sliders based on which the current queue of songs. This is a feature which we will add to our app.

The ‘mood backgrounds’ feature is something that no app currently offers. However, an app called ‘MoodTurn’ allows the user to choose a background category such as ‘beach’ or ‘nature’, then starts a background slideshow whilst playing soothing music associated with the pictures. We aim to keep the slideshow feature from this app, but instead of picture categories, we will have a way to change the pictures dynamically based on the user’s mood.

Todoist is a comprehensive app that allows the user to create todo lists. It has a plethora of features, such as creating recurring events and delegating tasks to other people. While we will keep some basic features of this app, such as arranging the tasks date-wise, we do not aim to include the other complex features in our app.

III. DESIGN

Software architecture (e.g. class diagram)? User interface (e.g. screen diagram)? Why this design?

IV. IMPLEMENTATION

What have we implemented? How was the work split up

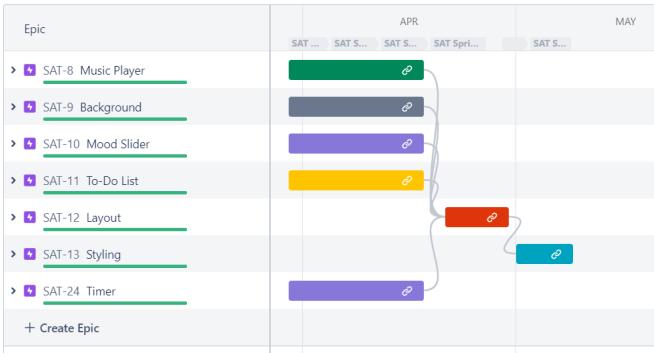


Fig. 1. Project roadmap.

Split into team contribution and individual? Add some screenshots. Homepage (which I did)



Fig. 2. Application homepage.

V. TESTING

How have we tested? Frontend testing
Backend testing

VI. METHODOLOGY

Management of your team in the project.

A. Technologies

Many technologies were used to co-ordinate and manage the team.

1) *Github*: Can add a screenshot of branches Github is a VCS

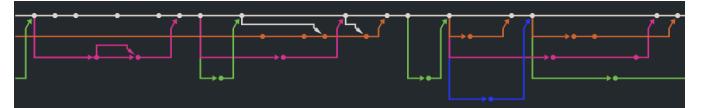


Fig. 3. GitHub network map.

2) *Jira*: Can add a screenshot of stats Jira is a
3) *Discord*: Can add a screenshot Discord is a

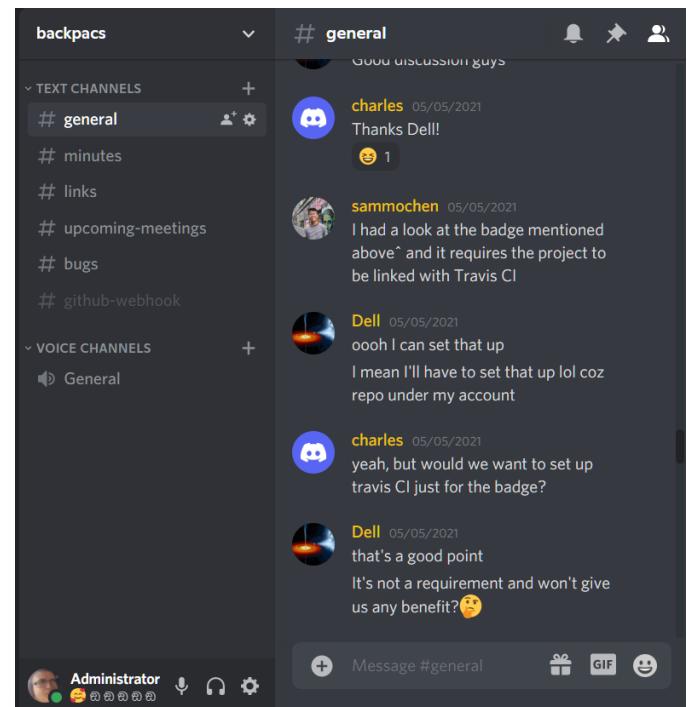


Fig. 4. Example Messenger messages.

4) *Messenger*: Messenger is a
5) *Zoom*: Zoom is a

B. Agile

Can add a screenshot of burndown The Agile methodology is... One-week sprints, Jira helped track these. Sprints started on Monday, held a mid-sprint review on Thursdays to check if anyone has any significant blockers or interesting things to report.

Tickets were assigned

Who created the issues

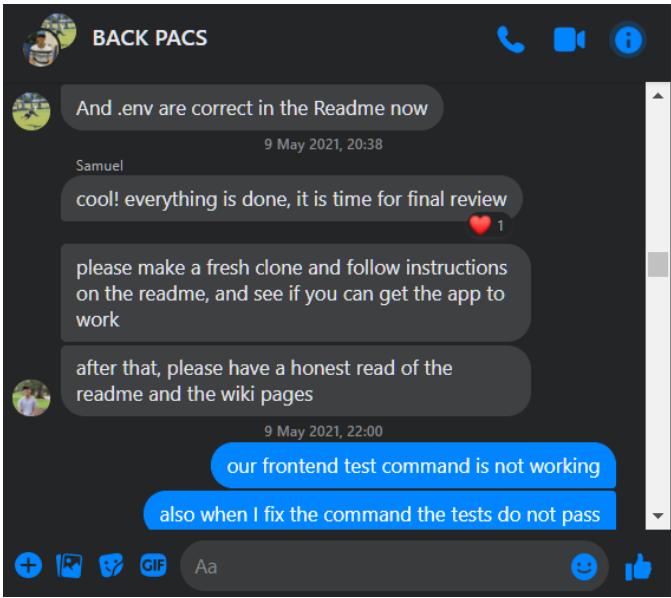


Fig. 5. Example Messenger messages.

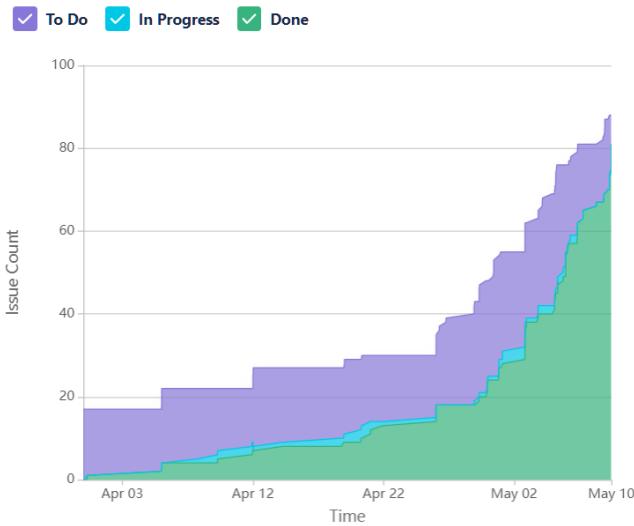


Fig. 6. Cumulative progress chart.

VII. DISCUSSION

Have the goals been achieved? Problems?

A. Progress on Goals

Our team implemented all of the must-haves, two of the should-haves, and one of the could-haves.

Along with these goals that were specified at the beginning of the project, other smaller features were also added to the system. A homepage was added which was not originally in the design

B. Challenges

One of the challenges we faced was that Sam was in Australia for the first 7 weeks of the project, so we had to

hold our meetings online via Discord and Zoom

Another challenge was working with the spotify player api, as many teams have discussed previously, there are some frustrating parts of the spotify api, such as needing spotify premium to play music through spotify player api, and authentication protocols were proprietary and difficult to learn

VIII. CONCLUSION

Conclusions? Lessons? Future work?

ACKNOWLEDGMENT

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g”. Avoid the stilted expression “one of us (R. B. G.) thanks ...”. Instead, try “R. B. G. thanks...”. Put sponsor acknowledgments in the unnumbered footnote on the first page.

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