Study Aid Tool - Group 27 BACK PACS

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***Abstract*—This document is a model and instructions for LaTeX. 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.

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.

II. Related Work

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

III. Design

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

IV. Implementation

What have we implemented?

V. Testing

How have we tested?

VI. Methodology

Management of your team in the project.

A. Technologies

1) Github: Jira
Discord
Zoom

B. Agile

One-week sprints

VII. Discussion

Have the goals been achieved? Problems?

VIII. Conclusion

Conclusions? Lessons? Future work?

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A. Identify the Headings

Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

Component heads identify the different components of your paper and are not topically subordinate to each other. Examples include Acknowledgments and References and, for these, the correct style to use is "Heading 5". Use "figure caption" for your Figure captions, and "table head" for your table title. Run-in heads, such as "Abstract", will require you to apply a style (in this case, italic) in addition to the style provided by the drop down menu to differentiate the head from the text.

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B. Figures and Tables

a) Positioning Figures and Tables: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation "Fig. 1", even at the beginning of a sentence.

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity "Magnetization", or "Magnetization, M", not just "M". If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write "Magnetization (A/m)" or "Magnetization {A[m(1)]}", not just "A/m". Do not label axes with a ratio of quantities and units. For example, write "Temperature (K)", not "Temperature/K".

Fig. 1. Example of a figure caption.

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.

References

Please number citations consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3]—do not use "Ref. [3]" or "reference [3]" except at the beginning of a sentence: "Reference [3] was the first ..."

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For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [6].

References

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