MANIPAL UNIVERSITY
INSPIRED BY LIFE

School of Computer Science and Engineering

Department of Computer Science and Engineering

STUDYFLOW

Submitted By:
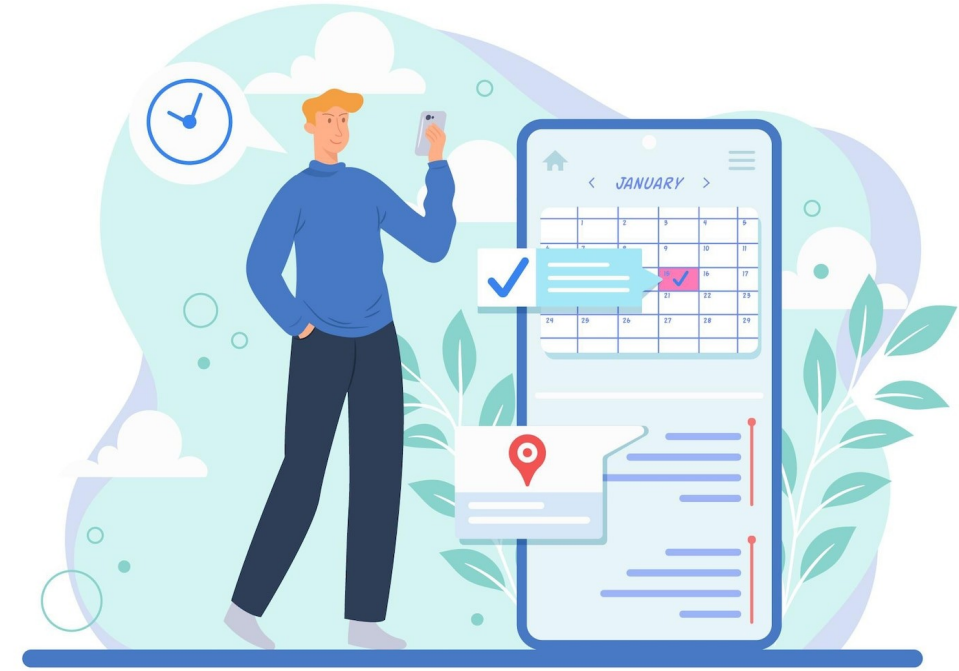Aditya Singh (2427030212)

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Outline

Introduction to StudyFlow

- The aim of StudyFlow is to be an assistant for your studies.

- StudyFlow is a cross-platform hub for you to keep track of your Classes, Attendance, Assignments, Quizzes, Mid-Terms, End-Terms, Self-Study sessions, etc. all in one place, without the need to navigate through multiple apps and websites!

Literature Review: The "Do-it-All" Giants

Notion

Pros: Infinitely flexible, powerful databases.
Cons: Steep learning curve, "blank canvas" is intimidating, lacks structured academic features.

Todoist

Pros: Excellent for task management, great reminders.
Cons: Not designed for academic schedules, poor file management, no attendance tracking.

Google Calendar

Pros: Excellent for time-blocking and class schedules.
Cons: Weak task management, no native support for assignments or progress tracking.

Literature Review: Niche Student Apps

My Study Life

Pros: Purpose-built for students, tracks classes, tasks.
Cons: Clunky UI, limited data synchronization, no file attachments.

Power Planner

Pros: Good Windows integration, grade calculation.
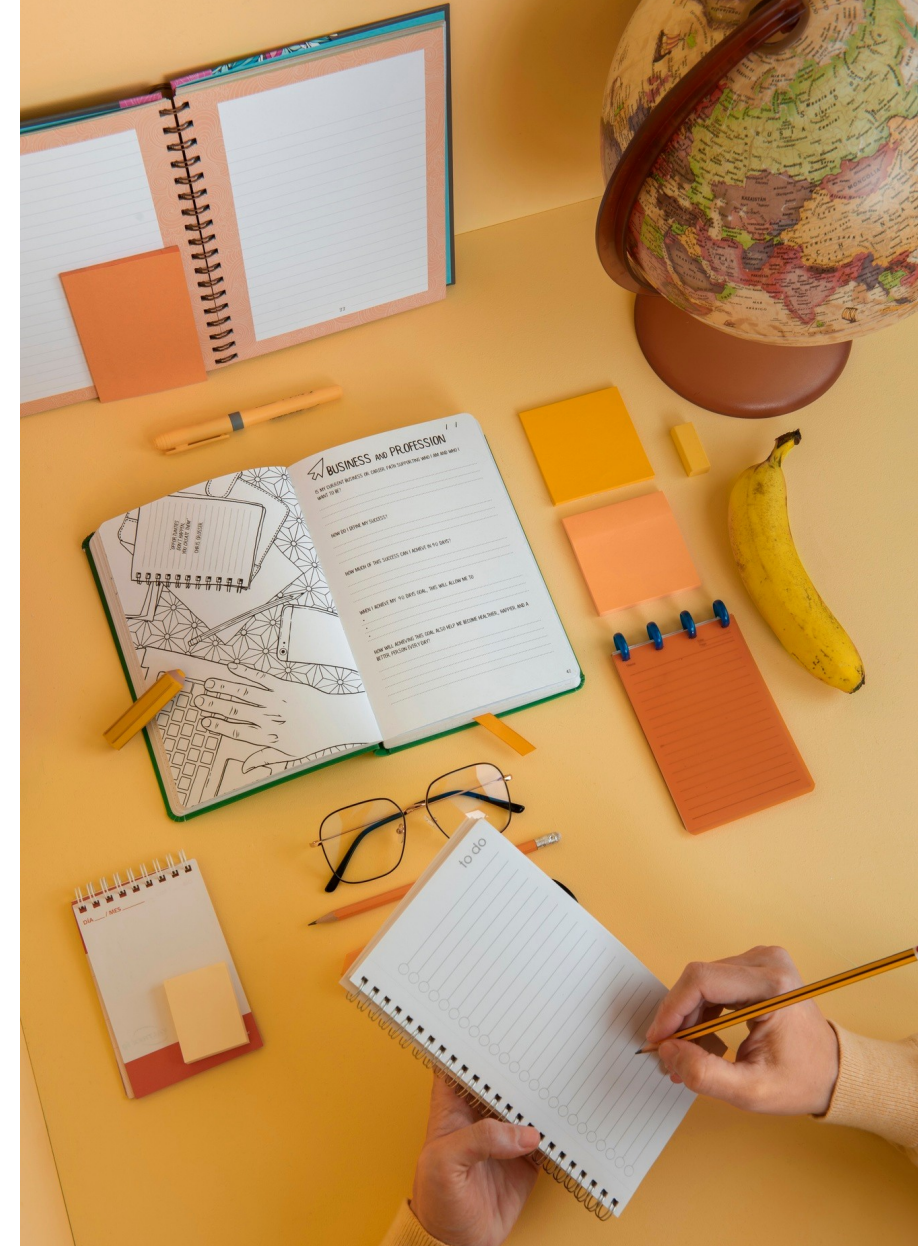**Cons:** Cross-platform experience is inconsistent, limited feature set.

Chipper / Forest

Pros: Motivates study sessions, simple to use.
Cons: A feature, not a complete solution. Does not manage assignments or schedules.

Literature Review: Conclusion

- There are dozens of apps and programs that offer parts of what StudyFlow can. However, they can perform only one or two of the things that StudyFlow can.

- Having multiple apps is quite time-consuming and confusing.

- There is a huge need for Organizational Inefficiency & Compromised Focus.

Problem Statement

- A one stop-shop is needed to make our lives easier and better, and StudyFlow provides that!

- The current lack of an integrated cross-platform application forces students to use fragmented tools for scheduling, tasks, and study sessions, resulting in organizational inefficiency and compromised focus.

- Core Vision: StudyFlow is the student's central hub for organization, time management, and focused study execution.

Objectives

- To implement an integrated task and time management system linked to scheduled study routines and class time tables.

- To improve student focus and accountability using specialized, task-linked study timers and visual performance analytics.

- To create an intuitive and engaging user interface (UI/UX) that minimizes friction in managing complex academic schedules.

- To design and develop a unified mobile/web application that consolidates all student organizational tools.

Proposed Methodology

Key Integrated Features:

- Track Tasks: Manage assignments, tasks, and quizzes, sortable by subject.
- Manage Schedules: View a comprehensive routine of classes, self-study sessions, mid-terms, and end-terms.
- Monitor Attendance

- Notifications & Reminders: Automated alerts for upcoming deadlines, classes, exams, etc.
- Store Files: Attach relevant files (notes, PDFs, submissions) directly to assignments, tasks, or subjects.

- Boost Focus with built-in Focus Timers for studies
- Leverage AI: Use advanced AI tools to generate Self-Study Routines and Summarize Notes (planned for later phases).
- Cross-Platform Syncing of Data

Proposed Methodology

- Requirement Analysis: Gather detailed requirements from the syllabus, study user preferences, and set success criteria.

- System Design: Define a modular architecture: Authentication, Task Engine, Scheduler, Focus Timer, Analytics, and Sync.

- Implementation: (1) Tasks & Timetable, (2) Focus Timer & File Attachments, (3) Notifications & Sync.

- Evaluation & Testing: Usability testing, performance profiling and bug tracking, metric-driven improvements.

- Deployment & Iteration: CI/CD pipeline, beta release, collect feedback, iterate and fully release the app.

Proposed Methodology

Phase 1

Feature Analysis & Core Requirements

- Figure out the essential elements and features needed for the project based on user needs in the market.
- Decide on the core technologies to be utilised, so the target may be achieved efficiently.

Phase 2

Core Feature Development

- Develop Class Schedule & Timetable module
- Implement Task & Assignment Tracker (sortable by subject)
- Build Attendance Monitoring system
- Implement File Attachment system
- Analytics Dashboard
- Basic functional Website

Proposed Methodology
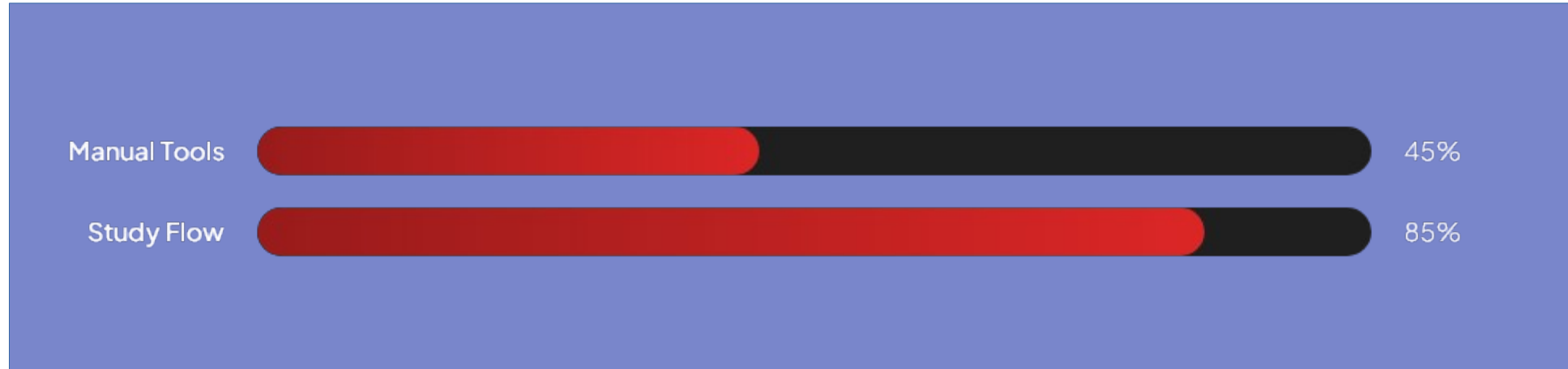
Phase 3

Advanced Features & Web Development

- Focus Timer Module
- Notifications & Reminders: Automated alerts for upcoming deadlines, classes, exams, etc.
- Cross-Platform Syncing
- Completing the development of the web version.

Phase 4

AI Features & Mobile Development

- AI Note Summarizer: Integrate LLM-based API to summarize uploaded notes/PDFs
- AI Study Routine Generator: AI suggests personalized study schedules based on upcoming deadlines and past performance
- Developing a Mobile application either through ReactNative or Kotlin

Results

Beta testing showed a significant increase in deadline compliance compared to manual tracking. The "Reminders" and "Dashboard" features successfully alerted users when their assignments and classes were due.

Outcome

- Completed Outcome: Core functionality achieved on the web portal.

- Future Outcomes:

  1. Deployment finished Website

  2. Mobile Application development & deployment

References

- Investigating the Effectiveness of Pomodoro, Flowtime, and Self-regulated Breaks on Study Sessions — E.J.C. Smits (preprint / PMC summary; 2025). Link: https://www.preprints.org/manuscript/202503.0845

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Thank You!