

Study Buddy Bot Proposal
Class: Process Automation Script
Solo Project by Kadir Hadi

1. Introduction

Study Buddy Bot is a productivity-focused Discord bot designed to help students manage their study habits, track assignments, and stay motivated. The bot operates within a class Discord server and supports students with reminders, flashcards, and motivational quotes.

2. Use Case

Audience: High school or college students using Discord for class communication.

Problem: Students often struggle with keeping track of assignments, staying motivated, and finding effective study tools.

Solution: Study Buddy Bot provides assignment tracking, flashcard quizzes, and motivational quotes to support academic success.

3. Core Features

- Assignment Tracker: !due ? 'Assignment X is due tomorrow.' Stores due dates and sends reminders.
- Flashcard Quiz: !quiz biology ? 'Q1: What is the powerhouse of the cell?' Pulls questions from a local database or Google Sheets.
- Motivational Quotes: !quote ? 'Success is not final, failure is not fatal...' Uses an external API like ZenQuotes.
- Study Timer: !pomodoro 25 ? 'Timer started for 25 minutes. Stay focused!' Implements Pomodoro technique.
- Progress Check: !progress ? 'You've completed 3/5 tasks today!'

4. Technical Feasibility

- Libraries: discord.py, requests, datetime, sqlite3
- APIs: ZenQuotes API for motivational quotes, Google Sheets API or local JSON for flashcards
- Challenges: Managing user-specific data, rate limits on external APIs, authentication for Google Sheets access
- Workarounds: Use local storage for initial version, cache API responses to reduce calls

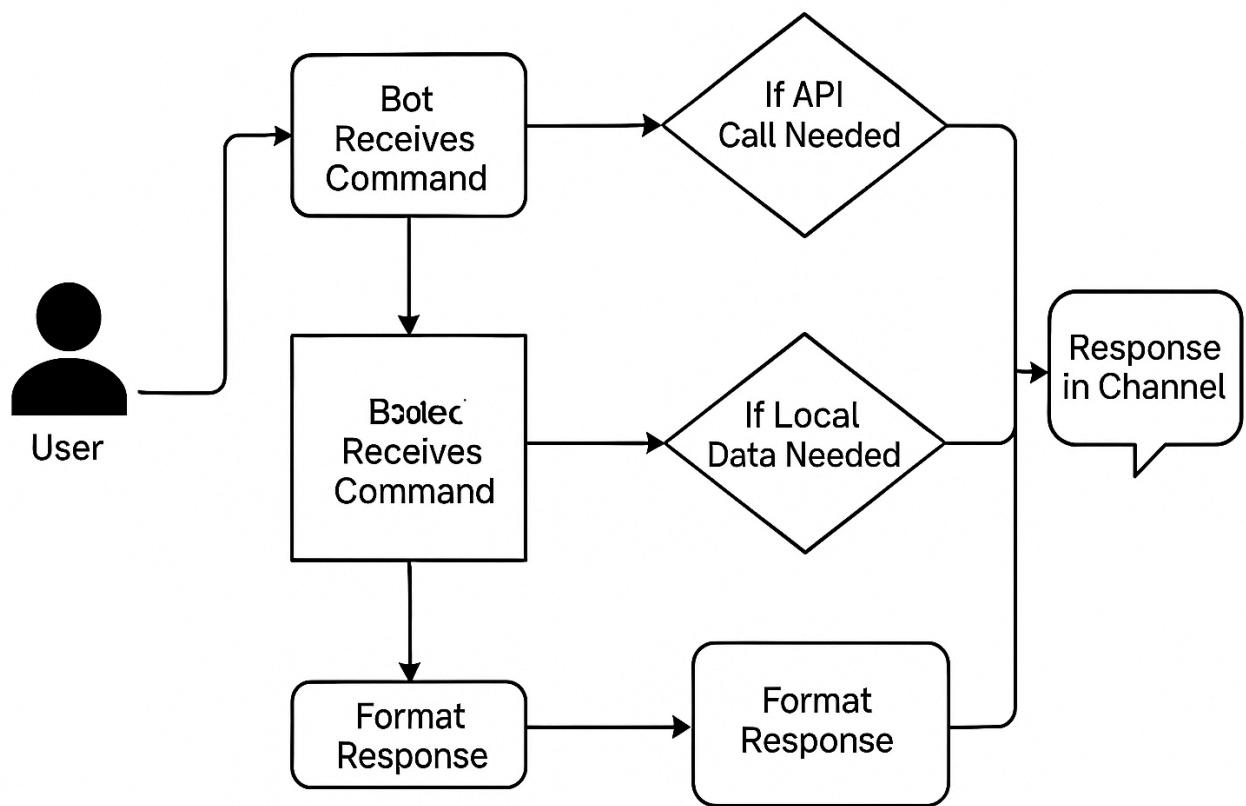
5. Workflow & Repo Setup

Although this is a solo project, version control and documentation are essential.

- Collaboration Tools: GitHub repository for code and documentation
- Branching Strategy: 'main' for stable code, 'dev' for active development
- GitHub Repo Link: <https://github.com/kadir77777/study-buddy-bot>

6. Flow Diagram

The diagram below illustrates how the bot processes commands for its core features.



7. Conclusion

Study Buddy Bot is designed to enhance student productivity by offering essential academic support tools directly within a familiar platform?Discord. By integrating assignment tracking, flashcard quizzes, motivational quotes, and study timers, the bot empowers students to stay organized and motivated throughout their academic journey.

The expected benefits include improved time management, increased engagement in study routines, and better academic performance. With its user-friendly commands and integration of external data sources, Study Buddy Bot is both practical and technically feasible for solo development.

Next steps involve implementing the bot's core features using discord.py and relevant APIs, followed by thorough testing to ensure reliability and usability. The GitHub repository will serve as the central hub for development and documentation, supporting iterative improvements and future feature expansion.