

Personalized Study Planner Using Ai

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ABSTRACT

The personalised study planner using AI is an intelligent system designed to help students to create, manage, and optimize their study schedules based on the learning goals, time availability and subject priorities. Unlike traditional static planners this AI-driven solution dynamically adjusts study plans by analysing user inputs. The key features include smart time allocation, progress tracking. By integrating AI-based decision-making into study planning, this project address the common challenges of procrastination, poor utilization time and unstructured learning, ultimately empowering students to achieve their academic goals more effectively.

KEY WORDS:

Artificial Intelligence, Flask, Natural Language Processing, Application Programming Interface, Pandas, Mongo DB.

INTRODUCTION

Students in today's academic setting have several difficulties in efficiently allocating their study time. Poor time management, procrastination, and last-minute preparation are frequently caused by the growing complexity of courses, competitive exams, project deadlines, and extracurricular activities. Conventional planners, such as diaries, wall calendars, or static digital apps, only offer a set timetable and are unable to adjust to shifting priorities or unanticipated events.

By utilising Artificial Intelligence (AI) and Machine Learning (ML) techniques, the Personalised Study Planner with AI aims to overcome these constraints by producing customised, optimised, and adaptive study schedules. Subjects and topics to be studied; exam dates and deadlines; available time slots each day; topic difficulty levels; and the student's learning rate are just a few of the inputs that the system takes in. The AI planner uses these inputs to create a study timetable that can be dynamically modified in real time to account for shifts in availability, progress,

or subject priority. This guarantees that the student's time is used effectively and that learning objectives are fulfilled without needless stress.

LITERATURE SURVEY

Recent years I studied papers related to Study Planners, in that I got some limitations To check papers. I studied some papers. In that first paper Traditional Planning by Smith et al (2021), but in this paper traditional planning lacks the flexibility and personalisation required to student needs. Next, I studied Johnes and Ahmed (2020), Impact of Personalised Learning, in this personalised planning of study schedules has impact on outcomes without proper Study schedules. Later, I Studied Effectiveness of real time feedback by kumar and singh(2023),in this paper, real time feedback by AI will significantly improves learning and lack of progress tracking and smart study schedule. So, the project I developed to overcome all the limitations of smart study planner and progress tracking and reviewing past submissions of students learnt topics.

RELATED WORK

In this Project used Open API key to Sync the user's personalized study schedule with their Google Calendar. Artificial Intelligence and Machine Learning algorithms to analyse user behaviour, study patterns, and performance data. Natural Language Processing are used to process and categorize input from users, such as learning goals or subject preferences and study resources based on the topics of the students. For backend development Flask or Django serves as the web framework to handle API requests and user authentication. Database MongoDB used for store user data and students' progress and study time and preferences of students.

EXISTING SYSTEM

Currently educational environment, scheduling and study management are often carried out using manual methods. while these solutions are functional, they lack intelligence, adaptability and automation. The limitations of existing systems are there is no Adaptive Rescheduling of

Tasks means if a task is missed, the schedule is not automatically arranged. Lack of Personalisation means learning speed and topic difficulty. Minimal Feedback Mechanisms, Progress Tracking not possible for students' activity to get real time feedback to improve the learning efficiency of students. All changes and updates should must be made manually which leads to inconsistency in learning. Overall, the Existing system is static.

PROPOSED SYSTEM

The Personalised Study Planner using AI is designed to be a dynamic, intelligent, and adaptive solution that overcomes the above limitations. It combines Machine Learning, Natural Language Processing and adaptive scheduling algorithms to deliver seamless study planning. In this system AI-Powered Scheduling to recommend optimal study times based on historical study patterns. Dynamic Scheduling of tasks to automatically rearrange tasks of study sessions. Progress tracking to show progress, time spent per subject and Resource Integration to provide relevant textbooks and online resources. So, this system is dynamic and intelligent to overcome the limitations.

SYSTEM ARCHITECTURE

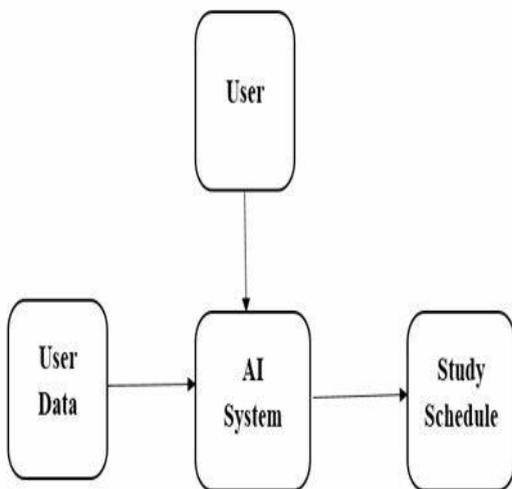


Fig:1 Architecture of Study Planner

METHODOLOGY DESCRIPTION

Data Collection: User provided inputs such as subjects, syllabus, study hours. All data are stored in a structured database for Preprocessing and analysis.

Process the Data: The Preprocessing phase ensured data quality and consistent through

data cleaning. Clean user provides schedules, standardize time formats.

Generate AI-Based Study Plans: Using historical data, user preferences apply machine learning algorithms to generate study schedule. Generate optimal study durations and allocate time slots based on productivity patterns.

Store AI Recommendations: Store generated schedules in Study Plans and tasks. Track changes made by AI rescheduling.

Visualize Study Progress: It stores Students progress, Time spent per subject

RESULTS AND DISCUSSION



Fig :2 Webpage of Study Planner

The AI Study Planner Webpage serves as the landing page for an intelligent study assistant application.

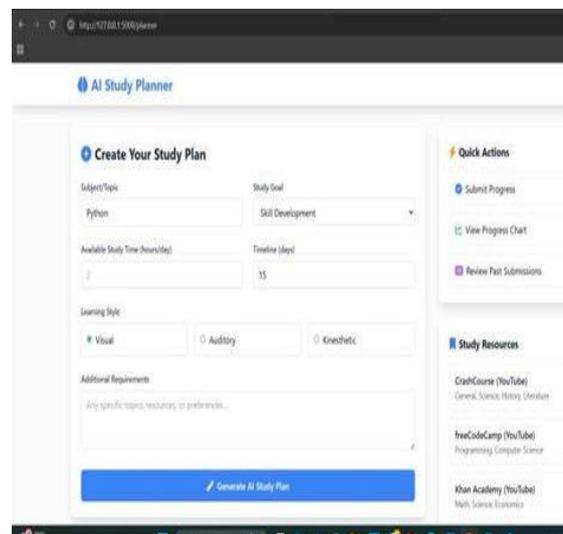


Fig :3 Filling fields to generate study plan

This page allows to enter data fields to generate a personalised study plan using AI by entering learning goals subject, time.

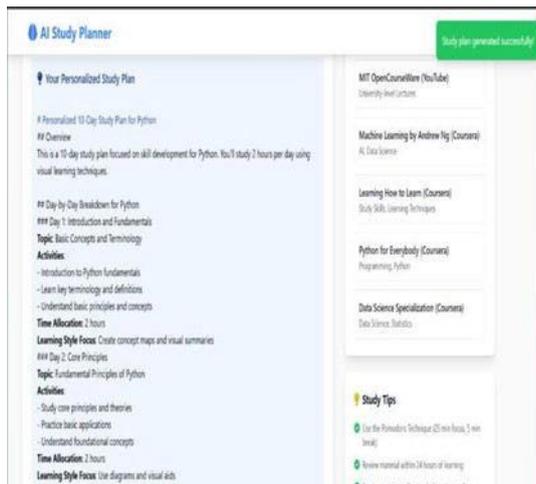


Fig 4: Study Plan

The AI generated Study Plan based on the user inputs.

CONCLUSION

In conclusion, the personalised study planner using AI is an effective tool for enhancing students learning efficiency and academic performance. By analysing individual study patterns, past submissions and available study hours, the AI generates customised study schedules that optimize learning outcomes

FUTURE SCOPE

In the future, the system can be further enhanced by integrating online learning resources, Voice and Chat bot Assistance, Multilingual Support.

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