

COURSE-TWEAKER MINI-PROJECT

By Ansh and Nikkee

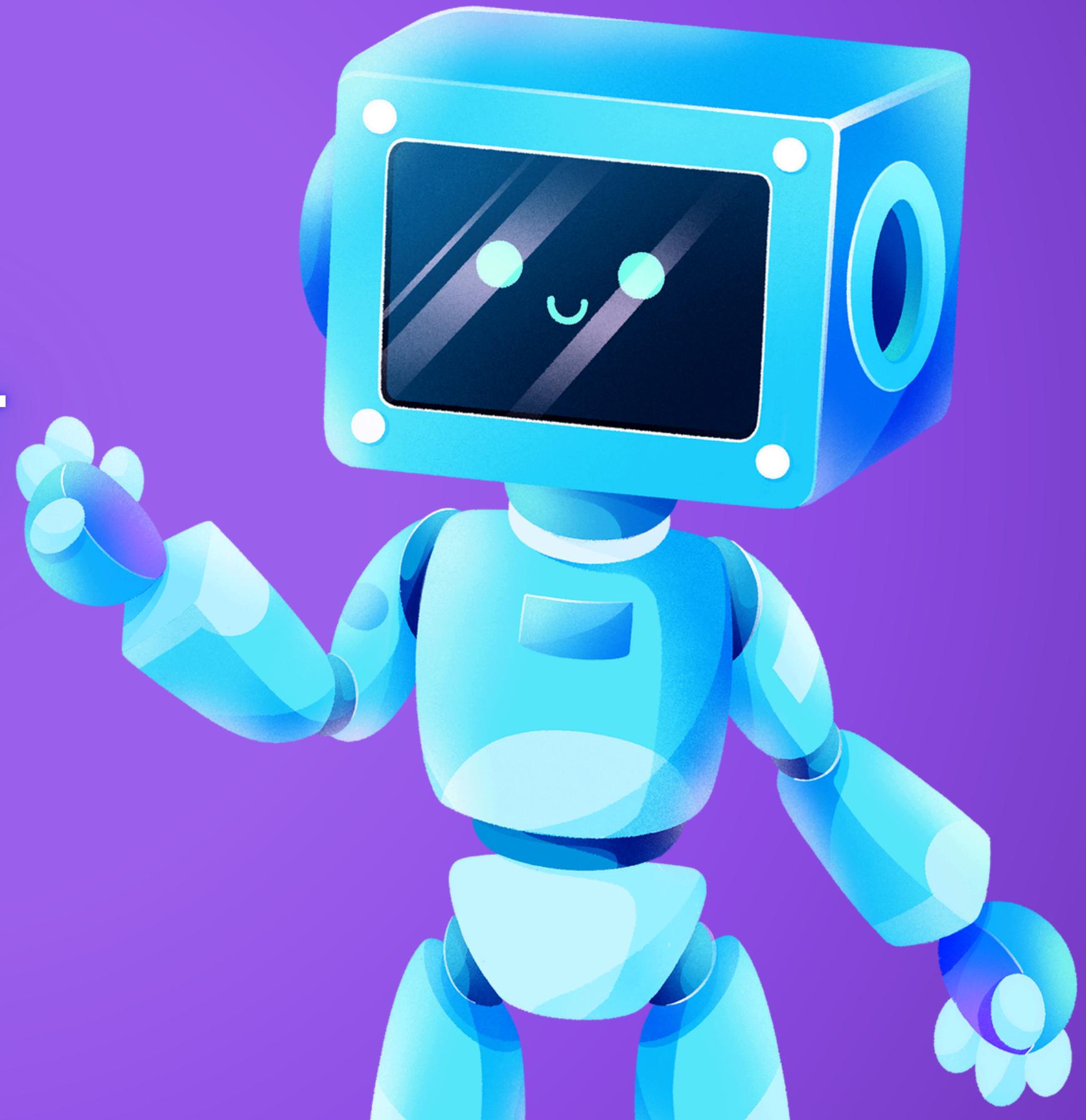
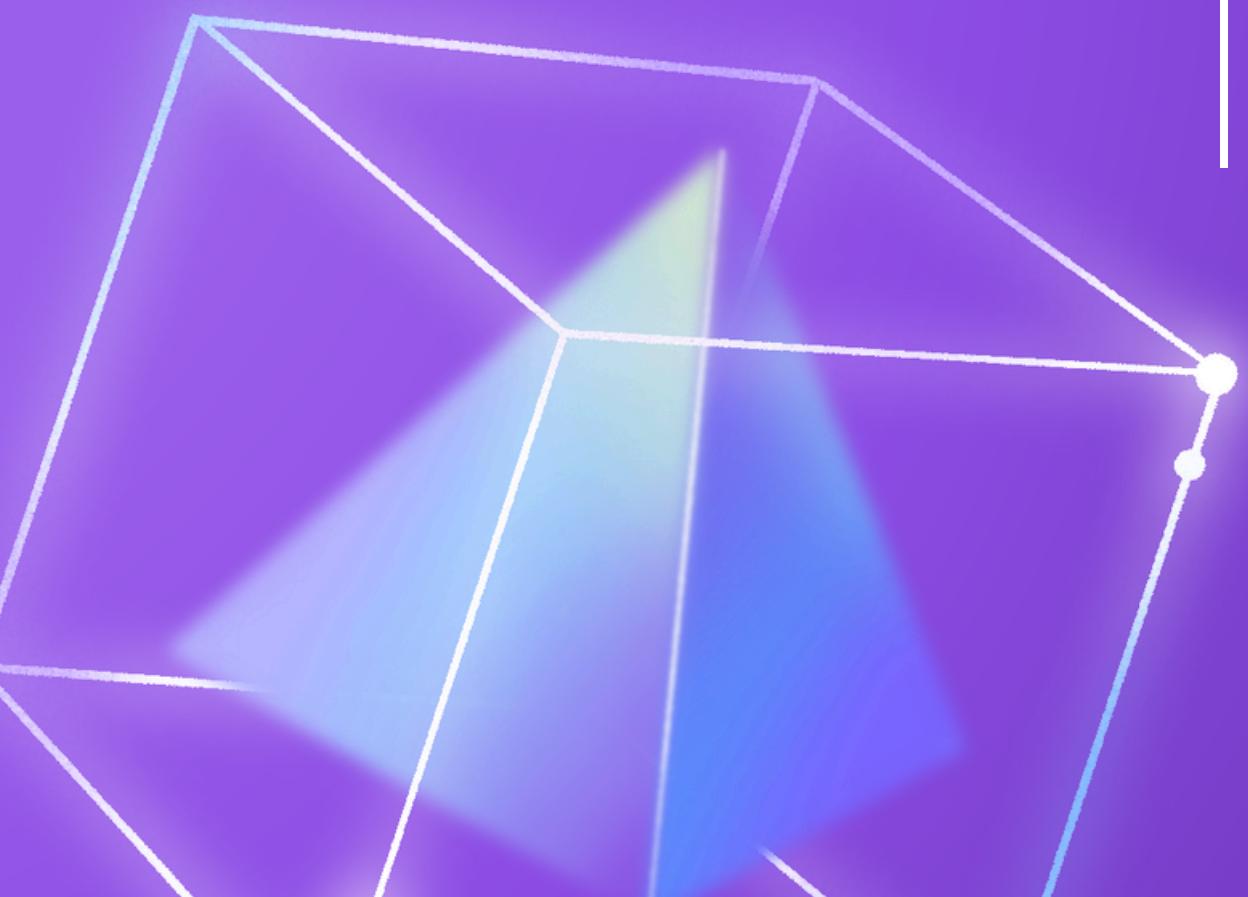




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INTRODUCTION

Course Tweaker is an automated course recommendation system designed to help users discover relevant courses based on their preferences and feedback.

ML and NLP

This system utilizes machine learning techniques, natural language processing (NLP), and interactive dashboards to provide personalized course suggestions.



PROJECT OBJECTIVES

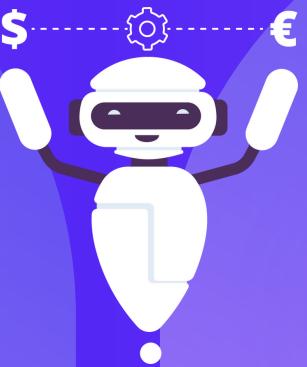
COURSE RECOMMENDATION SYSTEM

The primary objective of the project is to develop an automated course recommendation system.



USER INTERFACE

The project aims to create an intuitive and user-friendly interface for users to interact with the recommendation system.



INTEGRATION OF CHATBOT

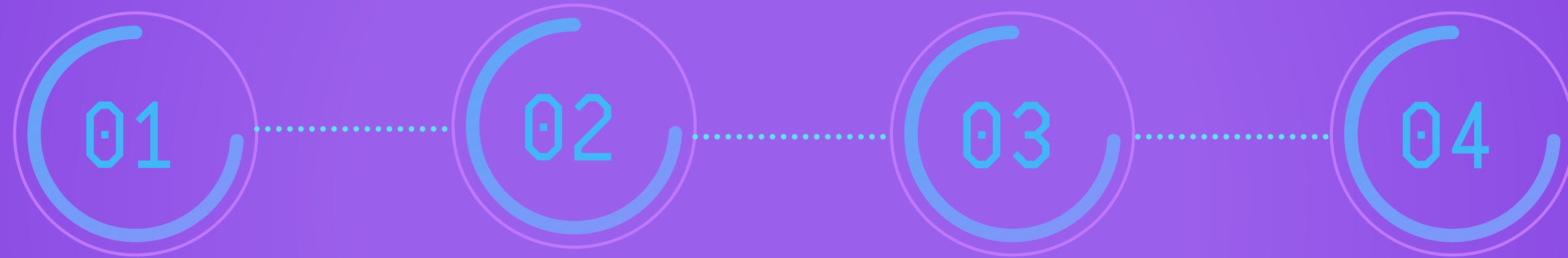
Integrating a chatbot into the system allows users to interact with the recommendation system through natural language inputs.



DATA VISUALIZATION

The project aims to incorporate interactive data visualization elements into the dashboard using tools like Chart.js.

METHODOLOGY/ARCHITECTURE



Homepage & Dashboard:

Users are greeted with an intuitive dashboard upon login, featuring interactive charts and elements powered by Chart.js.

Course Recommendation Engine:

Leveraging a dataset from Udemy, the recommendation engine employs custom algorithms such as Cosine and Linear Similarity to suggest courses tailored to each user's interests.

Chatbot Integration:

A machine learning-driven chatbot, integrated with Flask, PyCharm, and various libraries, assists users in exploring course options and provides assistance based on natural language inputs.

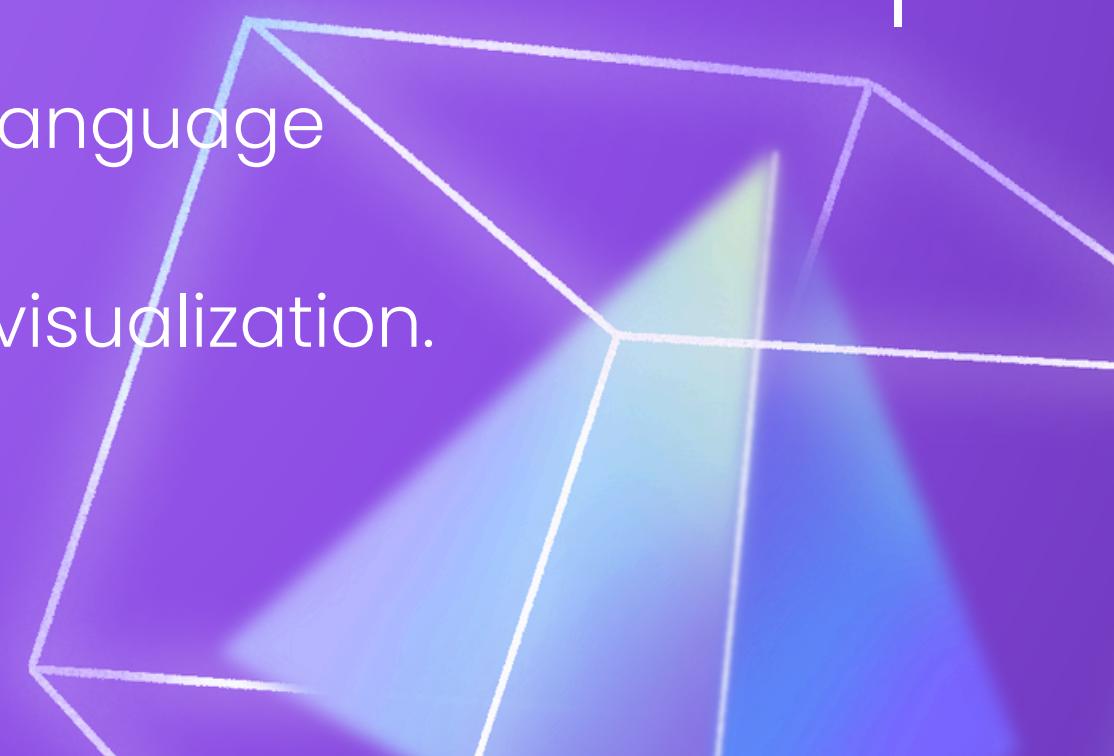
Filtering and Feedback Loop:

User preferences and feedback are continuously collected and processed to enhance the recommendation system's accuracy through a feedback loop mechanism.

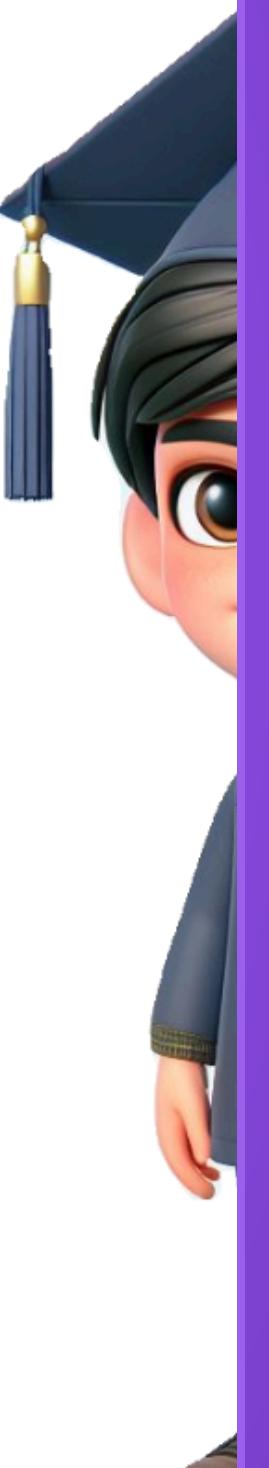


TECHNOLOGIES

- Frontend: HTML, CSS, JavaScript for user interface development.
- Backend: Flask for server-side development.
- Machine Learning and NLP: Jupyter notebooks, scikit-learn, "neattext" library for data preprocessing and model training.
- Recommendation Engine: Custom algorithms utilizing Cosine Similarity, Linear Similarity for course recommendation.
- Chatbot: NLP-based chatbot integrated with Flask for natural language interactions.
- Dashboard: Chart.js for dynamic and visually appealing data visualization.



FRONTEND-UI



Course-Tweakr

Home Dashboard About Project Login Sign-Up

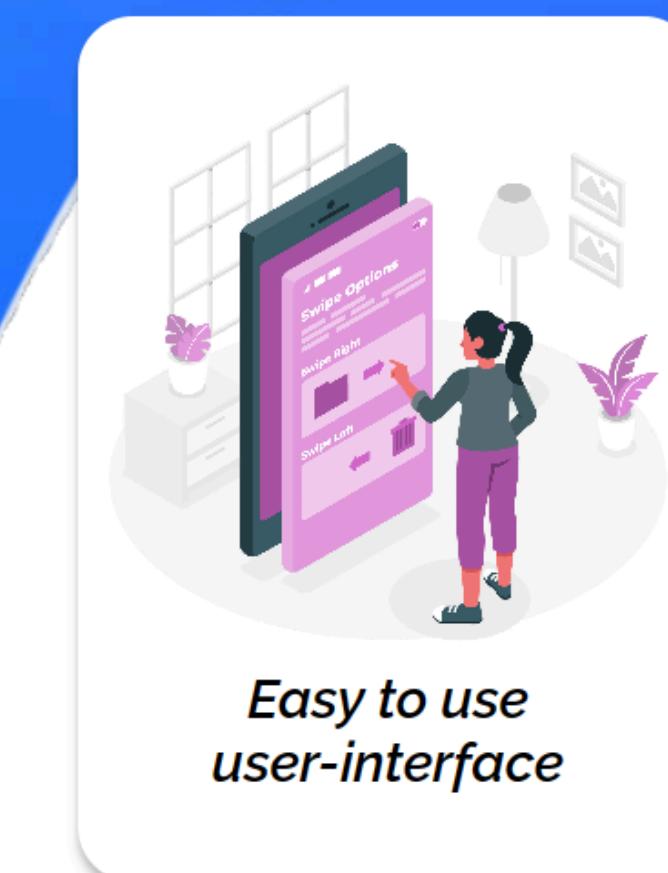
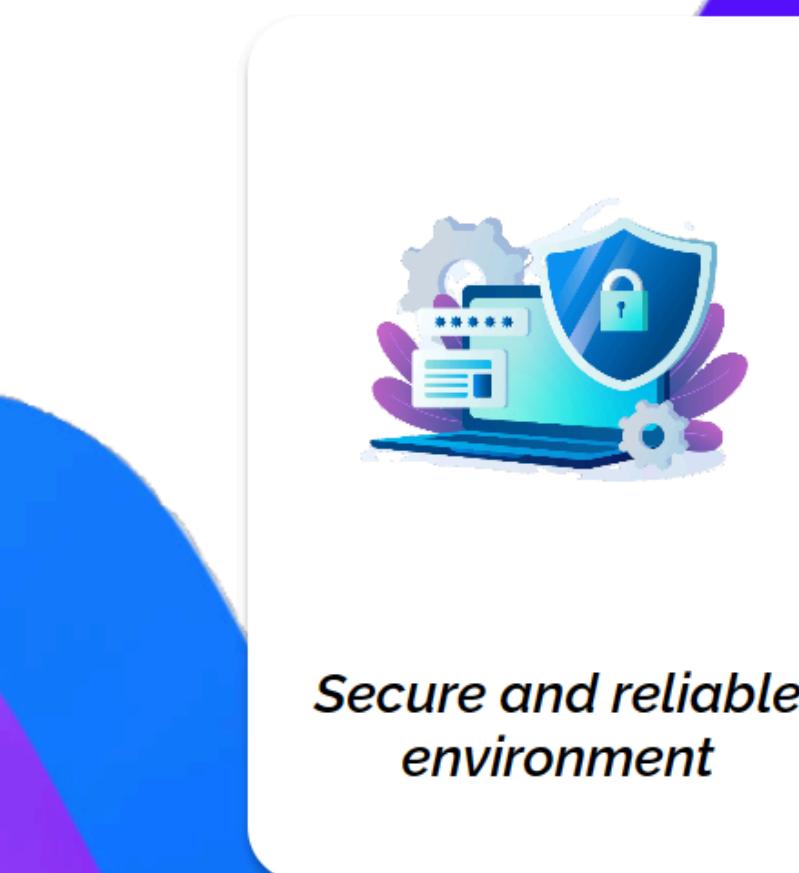
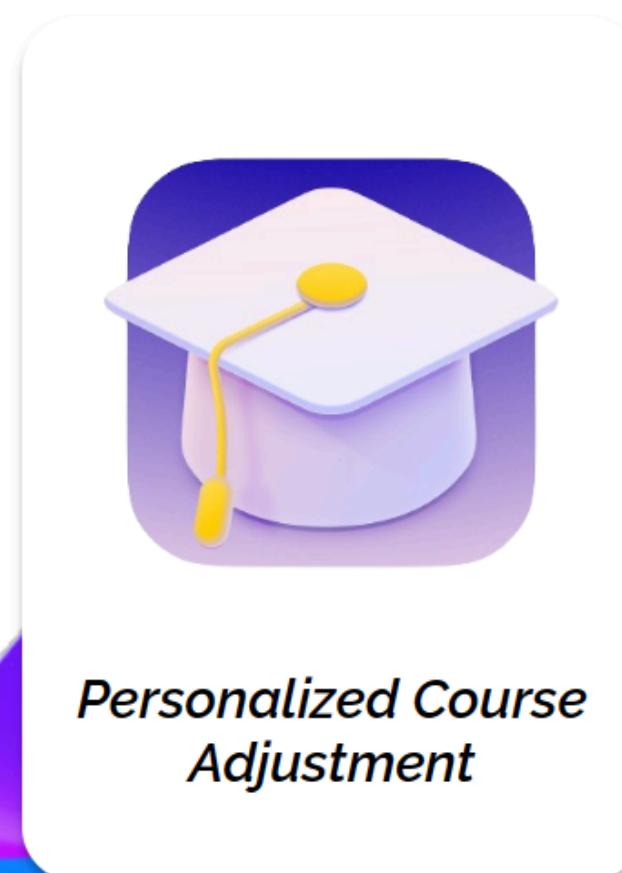
Course-Tweakr

**Feeling overwhelmed by countless course options?
Struggling to find your educational fit? Look no
further —> Course-Tweakr is here for you!**

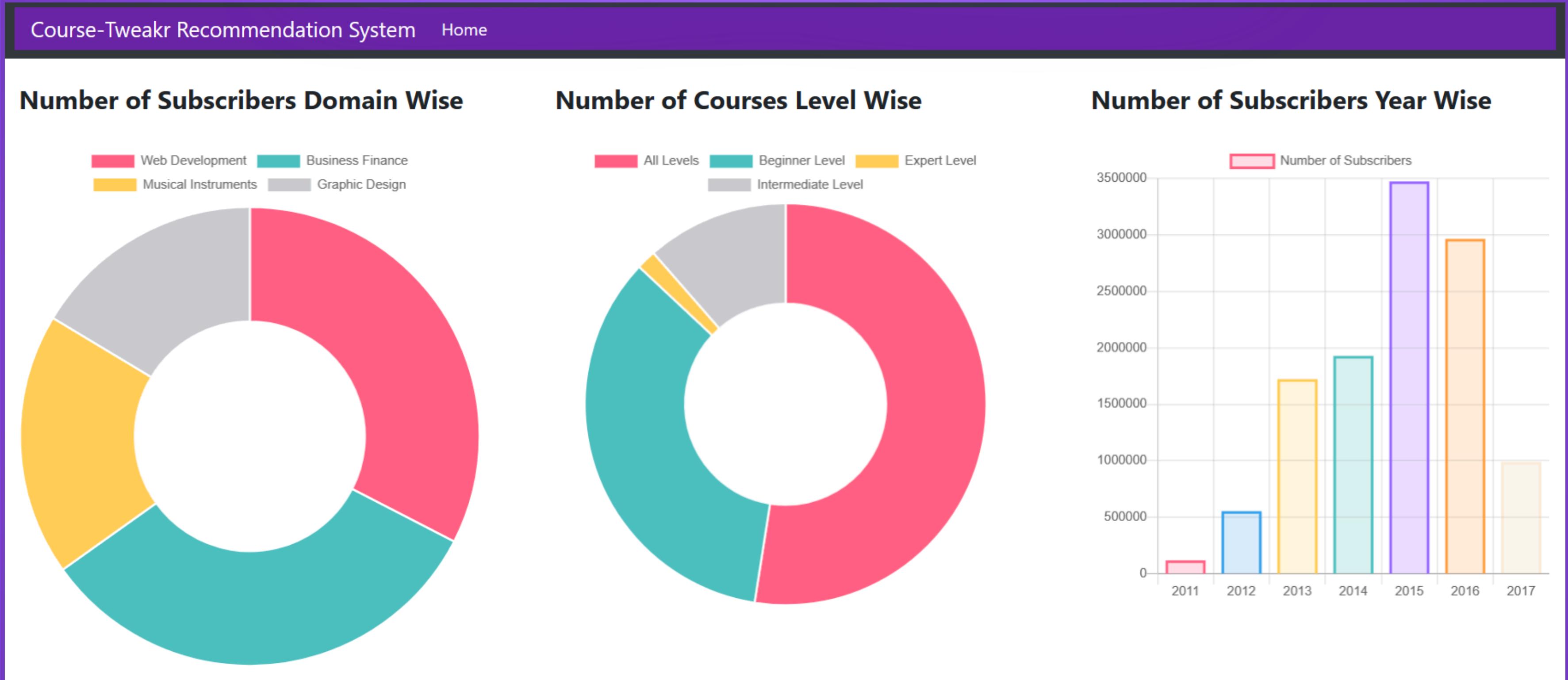
FRONTEND-UI

What does Course-Tweakr provide?

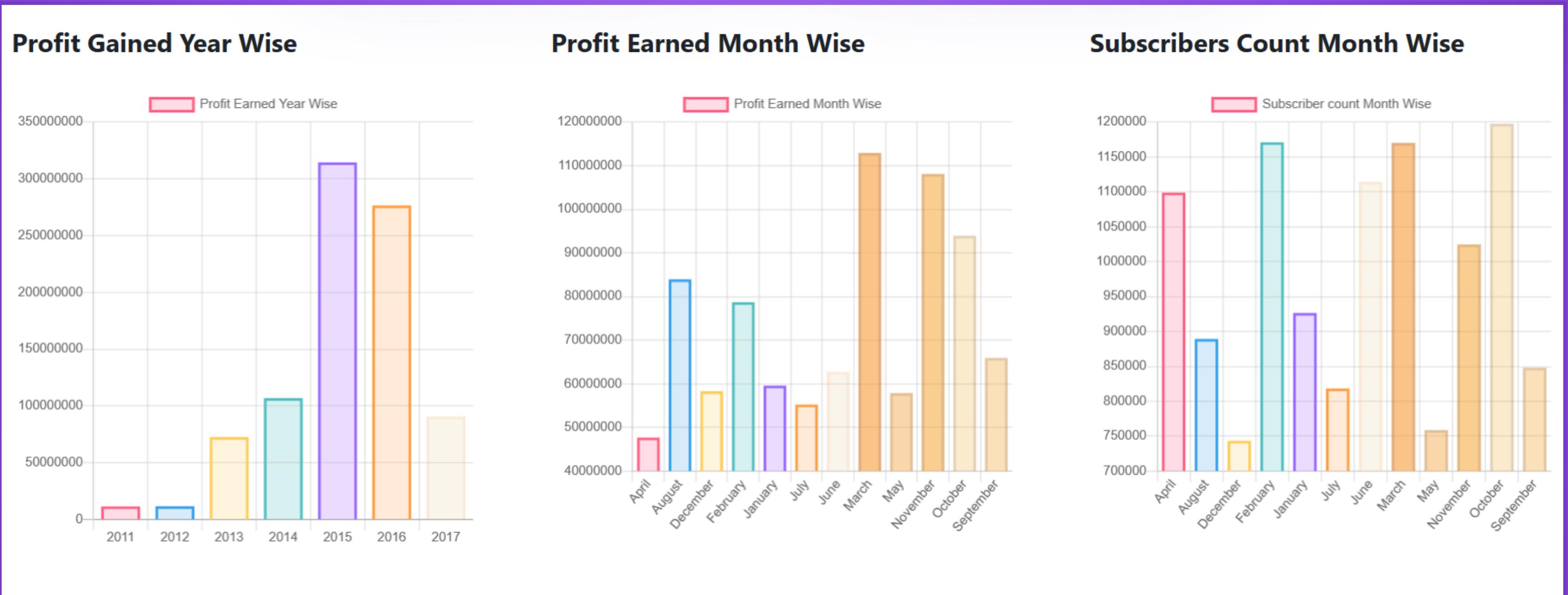
Course Tweakr provides a variety of features and functionalities aimed at empowering user to make adjustments to their academic courses according to their specific needs and preferences.



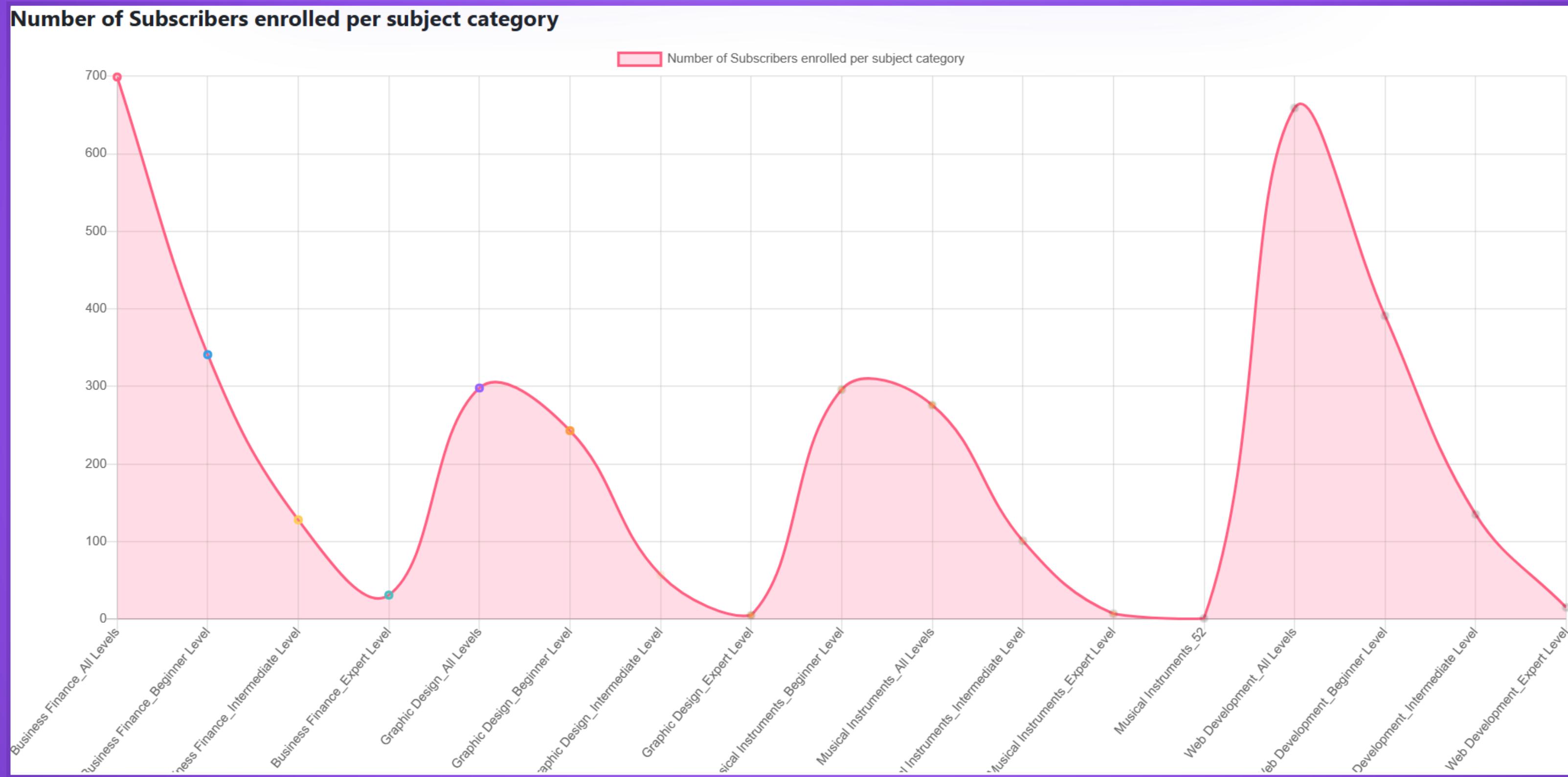
WORKING OF DASHBOARD



WORKING OF DASHBOARD



WORKING OF DASHBOARD



WORKING OF RECOMMENDATION SYSTEM

What are you waiting for? Search your desired course now!

Enter The Name of the Course for Recommendations

Recommend

Recommendations for Course "Python" are shown below

Web Programming with Python

[View Course](#)

Coding for Entrepreneurs: Learn Python, Django, and More.

[View Course](#)

Learn Python and Django: Payment Processing

[View Course](#)

Python and Django Full Stack Web Developer Bootcamp

[View Course](#)

What are you waiting for? Search your desired course now!

Enter The Name of the Course for Recommendations

Recommend

Recommendations for Course "business" are shown below

How to design a business card on Photoshop (for beginners)

[View Course](#)

Create a business website with WordPress

[View Course](#)

Step by step guide to understand how business perform

[View Course](#)

How to design professional PowerPoint business presentation

[View Course](#)

What are you waiting for? Search your desired course now!

Enter The Name of the Course for Recommendations

Recommend

Recommendations for Course "stock" are shown below

Stock market Investing Encyclopedia: How to invest in stocks

[View Course](#)

Investing in stocks: Avoid stock market loss

[View Course](#)

Stock Trading: Ultimate Guide to swing trading stocks

[View Course](#)

Read financial statements as a stock investor

[View Course](#)

FUTURE SCOPE



REAL-TIME FEEDBACK CHANNELS

Implementing real-time feedback channels within the course adjustment tool can facilitate ongoing communication between stakeholders, enabling prompt response to emerging issues and opportunities.

ADVANCED DATA VISUALIZATION

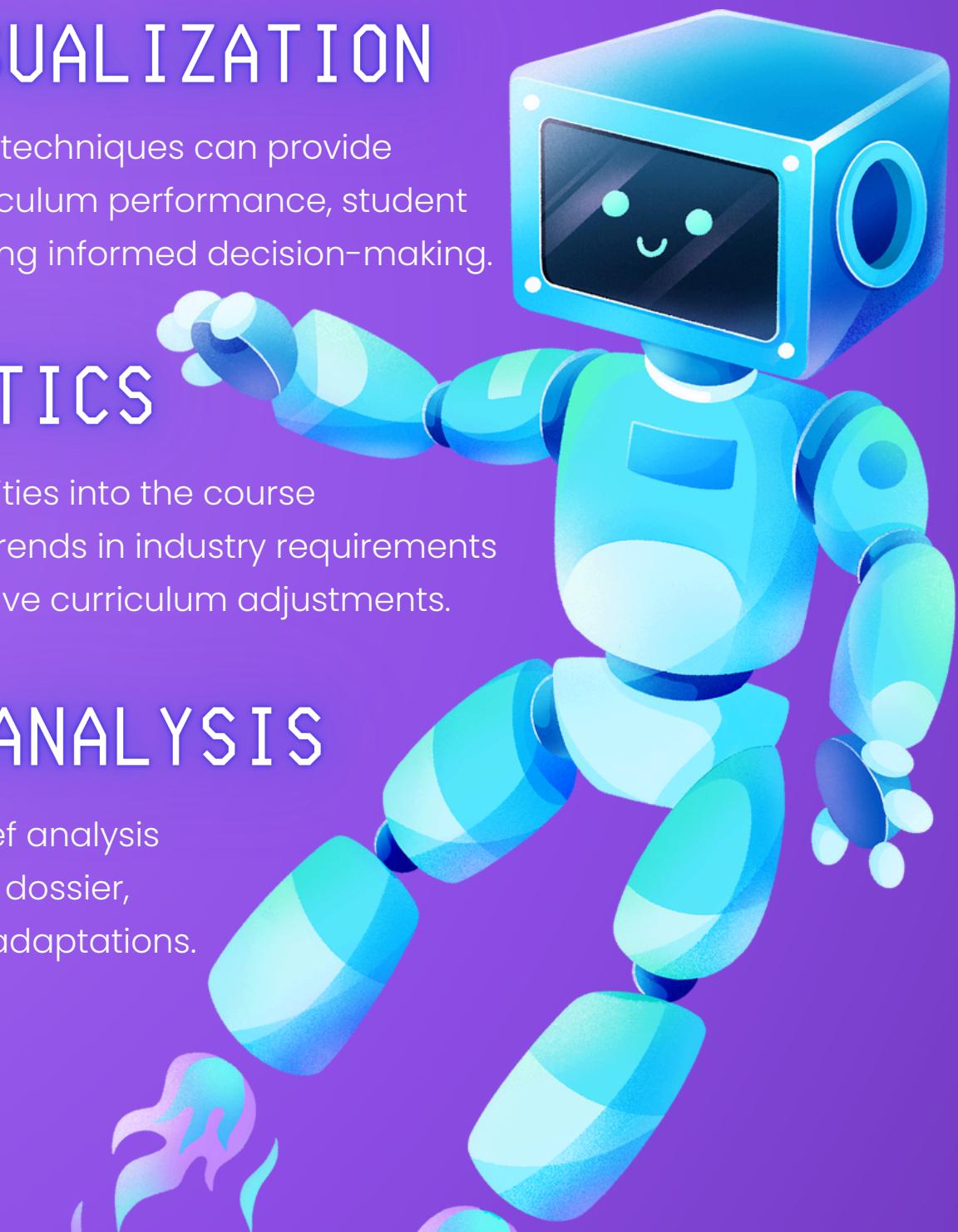
Implementing advanced data visualization techniques can provide stakeholders with intuitive insights into curriculum performance, student outcomes, and industry alignment, facilitating informed decision-making.

PREDICTIVE ANALYTICS

Incorporating predictive analytics capabilities into the course adjustment tool can help forecast future trends in industry requirements and student preferences, enabling proactive curriculum adjustments.

AUTOMATED FEEDBACK ANALYSIS

Leveraging the study of computers (NLP) and belief analysis methods can mechanize the analysis of response dossier, culling actionable observations to tell curriculum adaptations.



THANK YOU!

