

An isometric illustration on the left side of the slide. It includes a stack of three books in teal, orange, and white. Above the books is a map or technical drawing with orange lines on a teal background with a white grid. Below the books is a laptop with a teal screen and a white keyboard. In the bottom left corner is a potted plant with green leaves and a brown pot.

PILLAI COLLEGE OF ENGINEERING

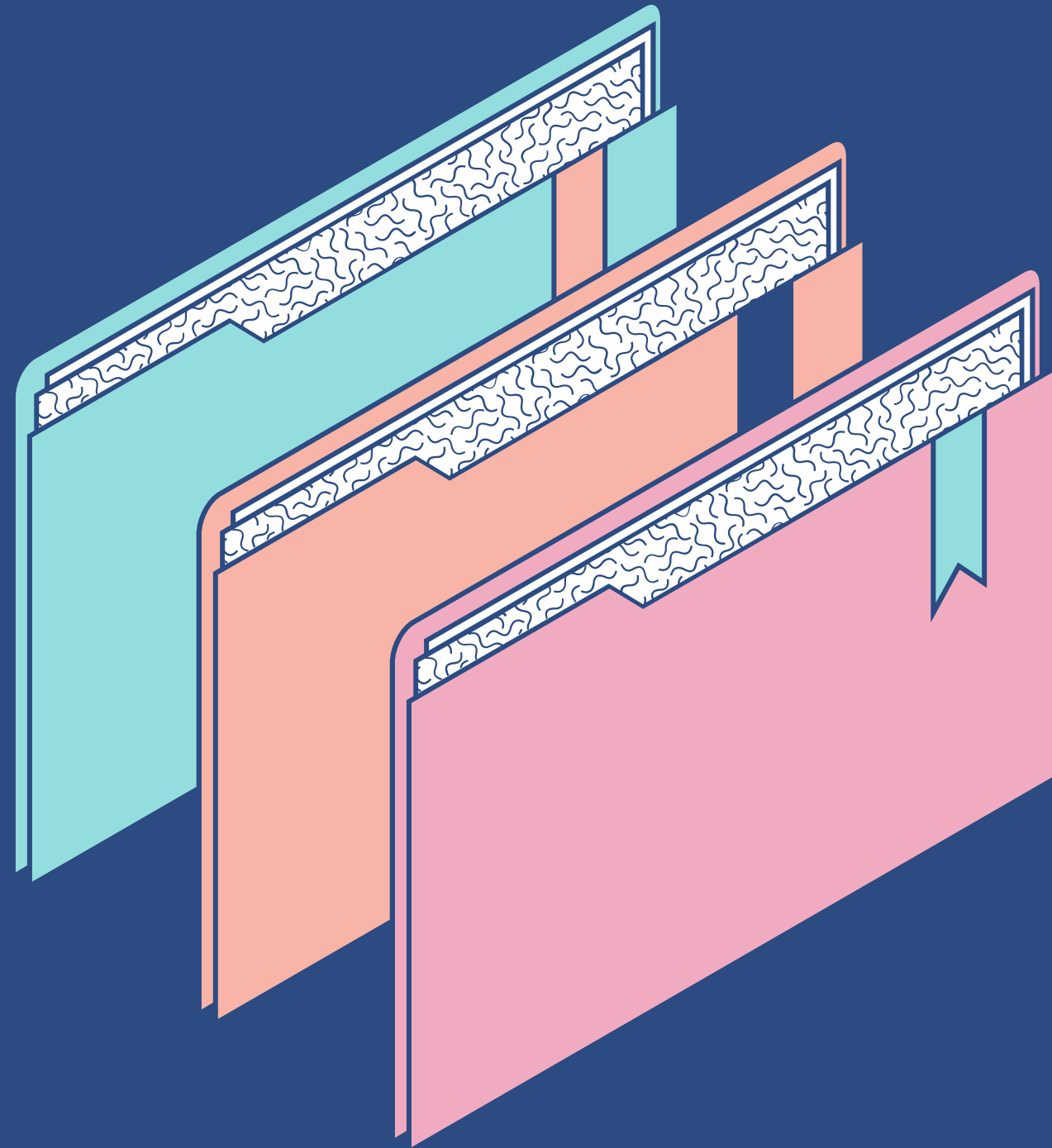
ONLINE APTITUDE EXAM GENERATION SYSTEM USING WEB SCRAPPING

Rohan Kadam - DALP2720

Atharva Bhingarde - DALP2715

Nisha Sagar - DALP2743

Shreyas Varadkar - DALP2755



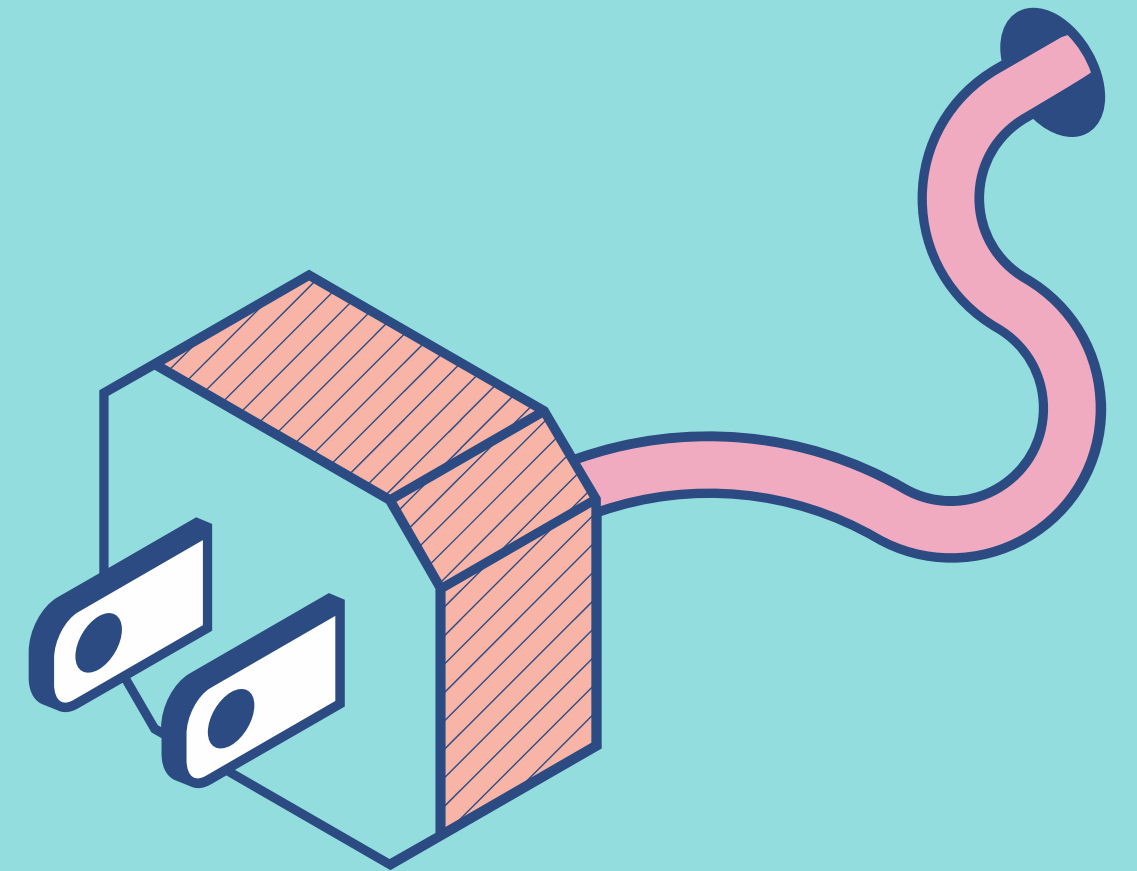
Agenda

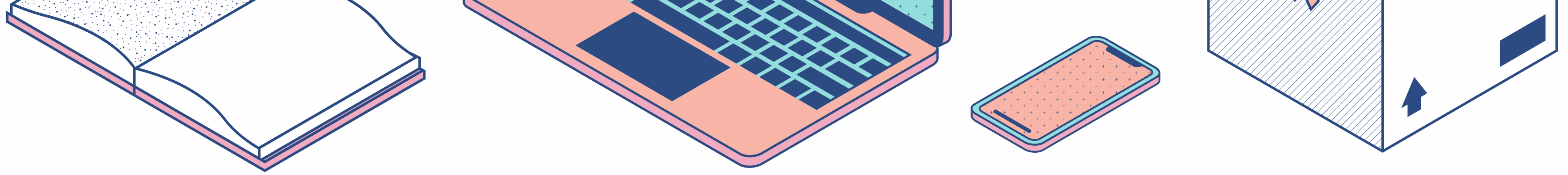
KEY TOPICS DISCUSSED IN
THIS PRESENTATION

- Introduction
- Problem Statement
- Literature Survey
- Project Implementation
- Technologies implemented
- Applications

Introduction

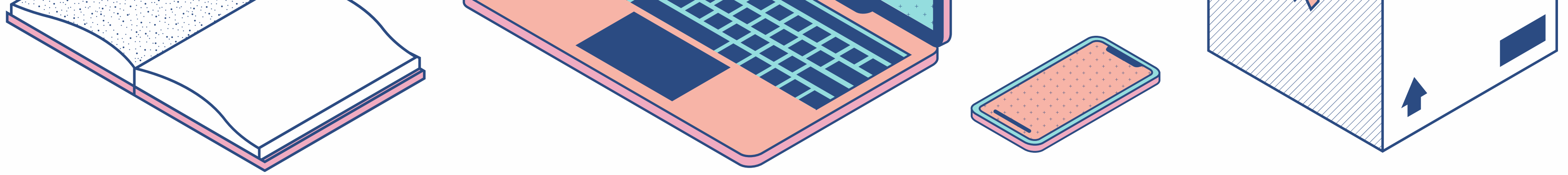
It is a platform for student to appear for Aptitude test & for the Faculty to conduct the Aptitude test efficiently.





Problem Statement

- In traditional aptitude exams, question generation is a time-consuming and manual process.
- Lack of a standardized question database for aptitude tests.
- Difficulty in maintaining up-to-date and diverse question sets.



Project Objectives

- Automate the process of generating aptitude exam questions.
- Utilize web crawling techniques to gather relevant data.
- Create a user-friendly platform for question management and exam generation.

Literature Survey

Author	Title	Methodology	Major Findings
Soniya Thakur et al. [2021]	Questionnaire generation and Monitoring system	Optical character recognition (OCR) and NLP	The system fetches questions from its databases and scanning pdfs and predicts questions from paragraphs using NLP
Pritam Kumar Mehta et al. [2021]	Automated MCQ Generator using Natural Language Processing	NLP and BERT	The text from any domain is provided as input to the system which is then summarized using the BERT algorithm
Tengku Nurulhuda Tengku[2020]	Automated Exam Question Set Generator Using Utility-Based Agent	Utility Based Agent , Learning Agent, Bloom Taxonomy	User-entered questions will be stored in the question bank. UBA uses GA to optimize the generation of exam question sets
Zalilah Abd Aziz et al. [2017]	Automated exam question generator	Genetic algorithm and Bloom's taxonomy	The questions from past question papers will be extracted and will be categorized using Bloom's Taxonomy



Existing System

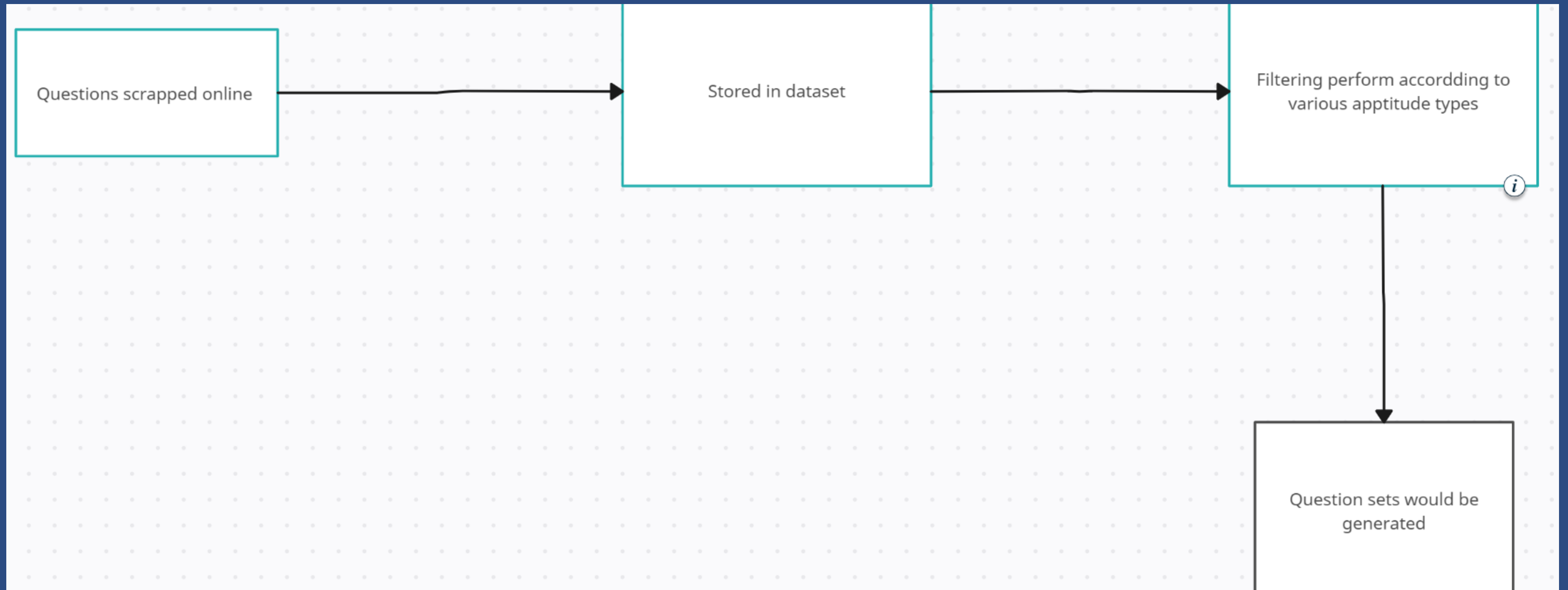
- Lack of Space
- Time consuming task
- Filtering is not easy
- Maintaining records manually is difficult task



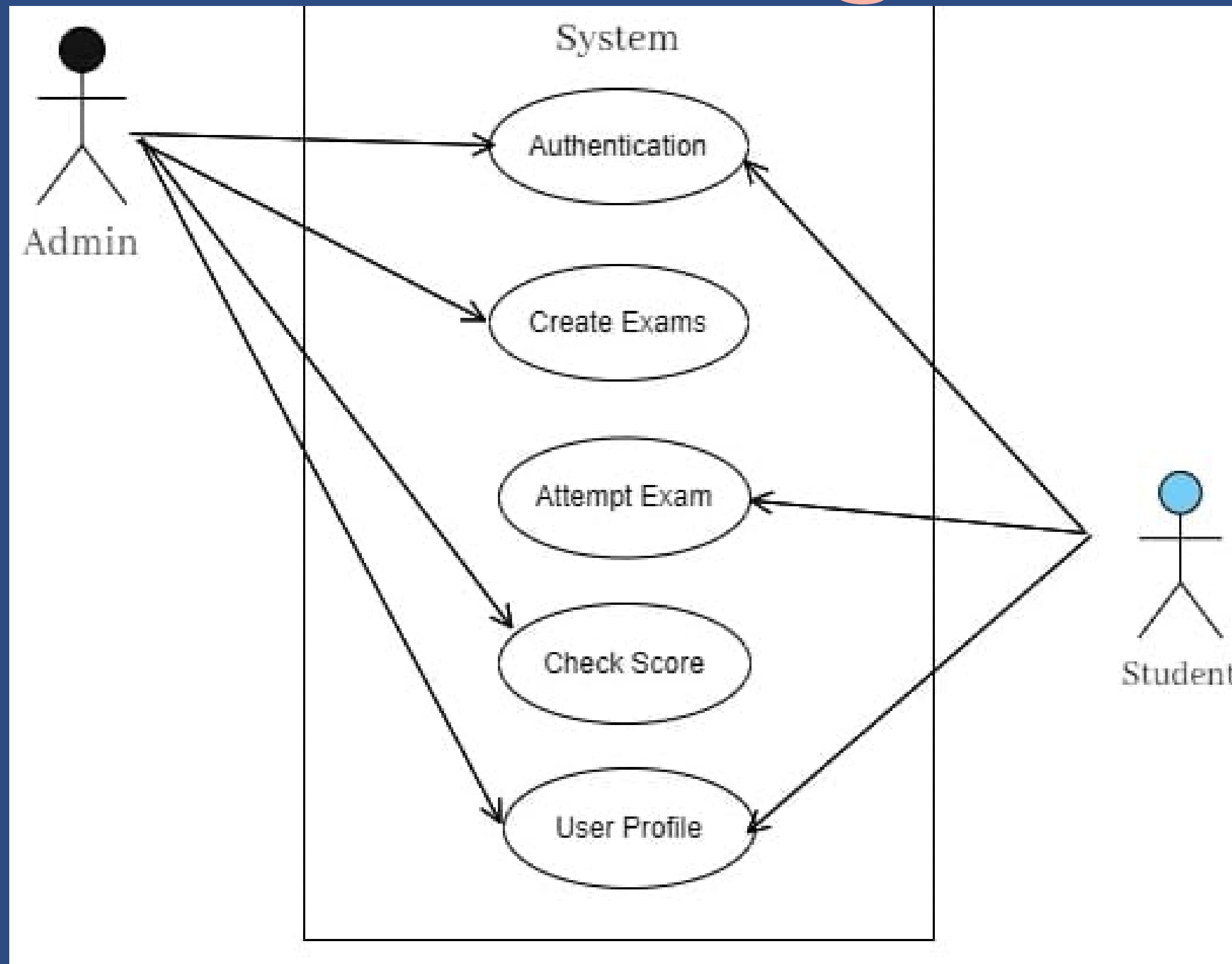
Proposed System

- Realtime Questions and Solutions from various aptitude websites.
- The Questions scraped from various websites would further be filtered.
- Segregated Questions would be further used to generate Question set.
- Students would be able to test their aptitude skills through the practice module.

Proposed System Diagram :



Use Case Diagram





Techniques used:

- Web Scraping
- Flask
- BeautifulSoup

Benefits to Students

HOW TECHNOLOGY HELPS
STUDENTS LEARN

Allows for a more personalized learning experience

Students have more freedom to choose the methods and tools that help them learn best.

Improves students' aptitude skills

Students have access to different channels where they can communicate and collaborate with teachers and fellow students.

Helps students prepare for the future

Students become equipped to face a highly technological future and will be able to easily adapt.



Hardware and Software Details

- Windows XP/7/10 32/64 Bit
- 4GB RAM
- 10GB Hard Disk
- VS code
- Any Browser



Future Work

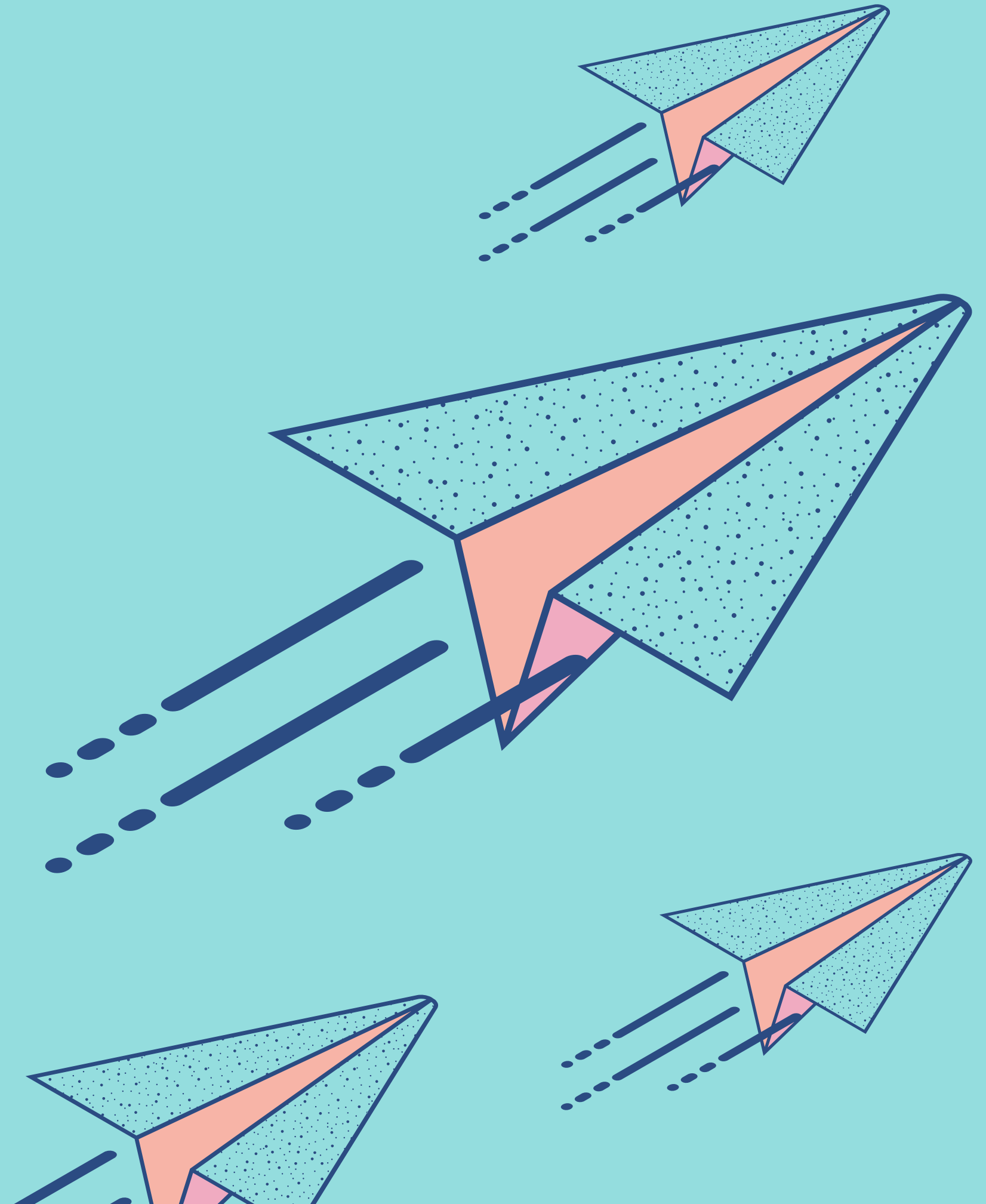
- Adding support for more question types.
- Adding support for more websites from which questions can be scraped.
- Collaborating with current tech companies to check authenticity of questions and answers.

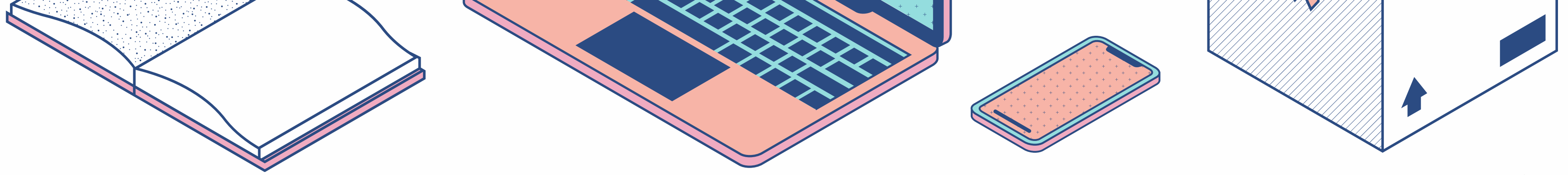
Applications

Educational Institutions

Mnc's

Startups





References

- [1] Thakur, S. and Malvani, H. (2021) “Eklavya - Questionnaire generation and Monitoring system.”
- [2] Mehta, P. and Jain, P. (2021) “Automated MCQ Generator using Natural Language Processing,” International Research Journal of Engineering and Technology (IRJET) [Preprint].
- [3] Rahim, A. and Domingo, M.S.T. (2020) “Automated Exam Question Set Generator Using Utility Based Agent and Learning Agent.”
- [4] Rahim, A. and Aziz, Z.A. (2017) “Automated exam question generator using genetic algorithm,” ResearchGate [Preprint]. Available at:
https://www.researchgate.net/publication/326361013_Automated_exam_question_generator_using_genetic_algorithm (Accessed: 2023)on k-means and Genetic Algorithm,” International Journal of Computer Applications [Preprint].