A REPORT

ON

Database Operation Intern at Unacademy

Submitted by,

Urja Rajesh Savalekar - 20211CCS0044

Under the guidance of,

Dr. Sharmasth Vali Y

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

At

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

PRESIDENCY UNIVERSITY

BENGALURU

MAY 2025

PRESIDENCY UNIVERSITY

PRESIDENCY SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the Internship/Project report **"Database Operation Intern at Unacademy"** being submitted by "**Urja Rajesh Savalekar**" bearing roll number "20211CCS0044" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.

14/5/25

Dr. Sharmasth Vali Y
Associate Professor
PSCS / PSIS
Presidency University

14/5/2025

Dr. Anand Raj S P
Professor & HoD
PSCS
Presidency University

Dr. Mydhili Nair
Associate Dean
PSCS
Presidency University

Dr. Sameeruddin Khan
Pro-Vice Chancellor - Engineering
Dean –PSCS / PSIS
Presidency University

PRESIDENCY UNIVERSITY

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DECLARATION

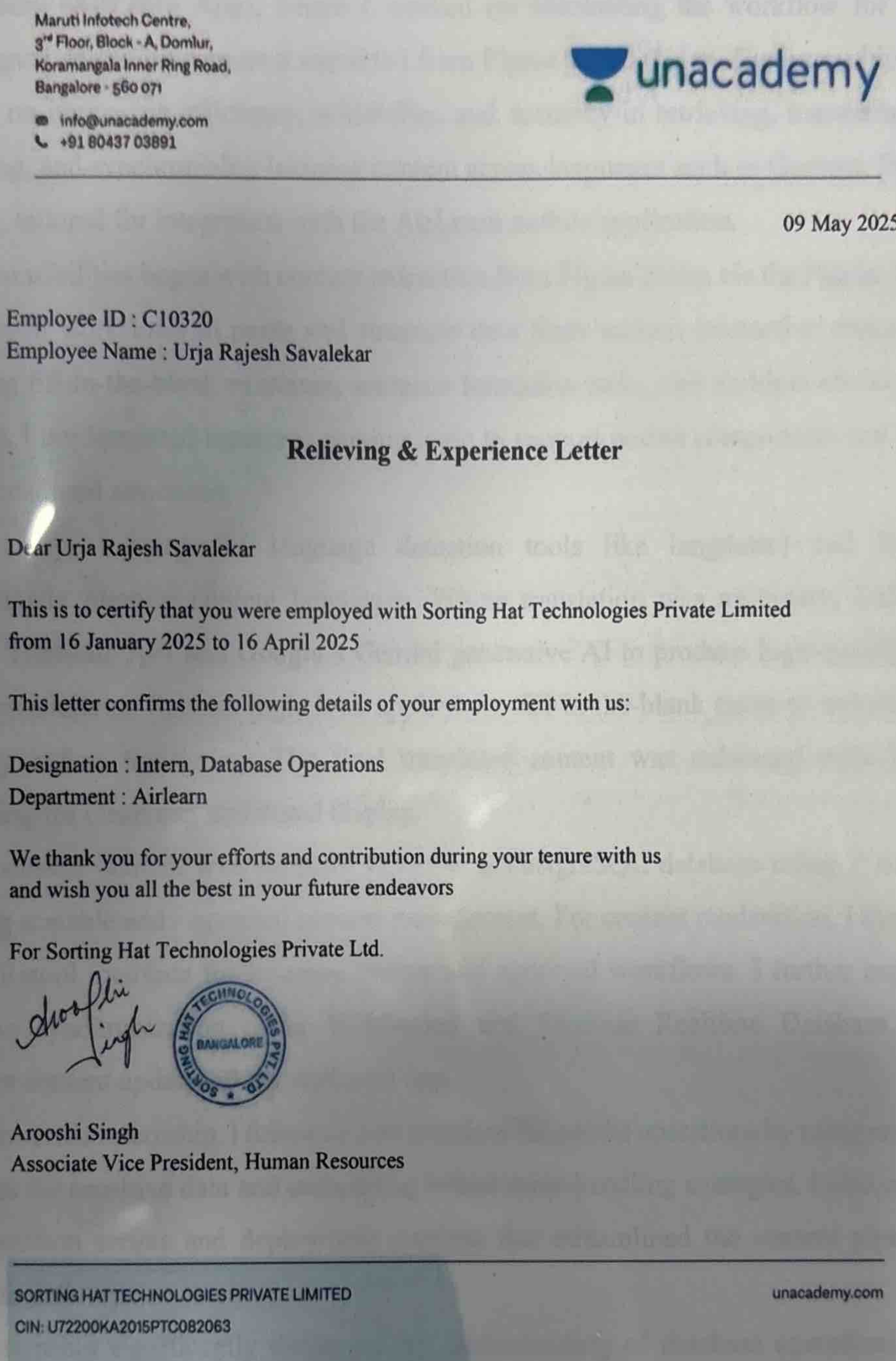
I hereby declare that the work, which is being presented in the report entitled **"Database Operation Intern at Unacademy"** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of my own investigations carried under the guidance of **Dr. Sharmasth Vali Y, Associate Professor, Presidency School of Computer Science and Engineering, Presidency University, Bengaluru.**

I have not submitted the matter presented in this report anywhere for the award of any other Degree.

Savalekar

Name:	Roll No:	Signature of the Student
Urja Rajesh Savalekar	20211CCS0044	

INTERNSHIP COMPLETION CERTIFICATE



Maruti Infotech Centre,
3rd Floor, Block - A, Domlur,
Koramangala Inner Ring Road,
Bangalore - 560 071
info@unacademy.com
+91 80437 03891

unacademy

09 May 2025

Employee ID : C10320
Employee Name : Urja Rajesh Savalekar

Relieving & Experience Letter

Dear Urja Rajesh Savalekar

This is to certify that you were employed with Sorting Hat Technologies Private Limited from 16 January 2025 to 16 April 2025

This letter confirms the following details of your employment with us:

Designation : Intern, Database Operations
Department : Airlearn

We thank you for your efforts and contribution during your tenure with us and wish you all the best in your future endeavors

For Sorting Hat Technologies Private Ltd.

Arooshi Singh

SORTING HAT TECHNOLOGIES PVT. LTD.
BANGALORE

Arooshi Singh
Associate Vice President, Human Resources

SORTING HAT TECHNOLOGIES PRIVATE LIMITED
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ABSTRACT

This report presents the outcomes of my internship as a Database Operation Intern at Unacademy (AirLearn App), where I worked on automating the workflow for managing multilingual educational content extracted from Figma-based slides. The internship primarily focused on improving efficiency, scalability, and accuracy in retrieving, translating, storing, reviewing, and synchronizing learning content across languages such as German, French, and Spanish, tailored for integration with the AirLearn mobile application.

My responsibilities began with content extraction from Figma Slides via the Figma API, where I developed workflows to parse and structure data from various interactive content formats including fill-in-the-blank exercises, sentence formation tasks, and multiple-choice questions (MCQs). I implemented recursive parsing logic to support nested components and accurately map educational structures.

Subsequently, I integrated language detection tools like langdetect and fastText to automatically identify content languages. Where translation was necessary, I utilized the Google Translate API and Google's Gemini generative AI to produce high-quality, context-aware translations. Special logic was applied for fill-in-the-blank tasks to ensure semantic accuracy before translating. The final translated content was enhanced with Markdown formatting for clean and structured display.

The processed content was securely stored in a PostgreSQL database using Prisma ORM, ensuring scalable and organized content management. For content moderation, I designed and used a Retool interface for intuitive review and approval workflows. I further implemented real-time synchronization using WebSocket and Firebase Realtime Database, allowing seamless content updates in the AirLearn app.

Throughout the internship, I followed best practices for secure operations by using environment variables for sensitive data and embedding robust error-handling strategies. I also contributed to automation scripts and deployment routines that streamlined the content pipeline from design to delivery.

This internship significantly deepened my understanding of database operations, backend automation, real-time systems, and localization workflows within an educational technology ecosystem. It strengthened my skills in Python scripting, API integration, data validation, and collaborative development in a production-grade environment.

ACKNOWLEDGEMENTS

First of all, we indebted to the **GOD ALMIGHTY** for giving me an opportunity to excel in our efforts to complete this project on time.

We express our sincere thanks to our respected dean **Dr. Md. Sameeruddin Khan**, Pro-VC - Engineering and Dean, Presidency School of Computer Science and Engineering & Presidency School of Information Science, Presidency University for getting us permission to undergo the project.

We express our heartfelt gratitude to our beloved Associate Dean **Dr. Mydhili Nair,** Presidency School of Computer Science and Engineering, Presidency University, and Dr. ANAND RAJ S P, Professor, Head of the Department, Presidency School of Computer Science and Engineering, Presidency University, for rendering timely help in completing this project successfully.

We are greatly indebted to our guide **Dr. Sharmasth Vali Y**, Associate Professor and Reviewer **Dr. ANAND RAJ S P, Professor**, Presidency School of Computer Science and Engineering, Presidency University for his inspirational guidance, and valuable suggestions and for providing us a chance to express our technical capabilities in every respect for the completion of the internship work.

We would like to convey our gratitude and heartfelt thanks to the CSE7301 Internship Coordinator **Mr. Md Ziaur Rahman and Dr. Sampath A K,** department Project Coordinators and Git hub coordinator **Mr. Muthuraj.**

We thank our family and friends for the strong support and inspiration they have provided us in bringing out this project.

Urja Rajesh Savalekar

LIST OF TABLES

LIST OF FIGURES

TABLE OF CONTENTS

Chapter 1

INTRODUCTION

1.1 Background

In the rapidly evolving field of digital education, the need for multilingual learning platforms has become increasingly critical. As education transcends borders, learners from different linguistic and cultural backgrounds require access to content in their native languages. Traditional translation workflows, especially for educational slides designed on platforms like **Figma**, are often manual, repetitive, and error-prone. This results in delayed content delivery, inconsistent translations, and increased operational costs.

The Airlearn App by Unacademy is an innovative multilingual platform that delivers interactive learning materials in languages like German, French, and Spanish. It leverages visually rich slides and exercises to teach vocabulary, sentence structure, and grammar. To ensure scalability and localization efficiency, automation of the content translation and publishing workflow became essential.

1.2 Internship Context

During my internship at Unacademy as a Database Operations Intern, I was responsible for supporting and optimizing the backend operations of the Airlearn App. My work focused on bridging the gap between design, AI-based translation, content management, and final publishing. I worked with a cross-functional team to automate slide content extraction, perform AI-driven translations, and manage the end-to-end publishing process using Firebase, PostgreSQL, Retool, Google Sheets, and Figma.

Key responsibilities included:

- Automating extraction of textual data from Figma designs using its API
- Performing smart translation using Google Gemini AI
- Structuring and storing translated content in Firebase or PostgreSQL
- Developing a user-friendly dashboard in Retool for quality control
- Managing LMS operations for content uploads and approvals
- Synchronizing updates to the live app via real-time databases

  This internship gave me hands-on exposure to both technical and operational aspects of multilingual content workflows in an educational tech environment.

1.3 Problem Statement

The Airlearn team faced several challenges related to content localization at scale. The primary issues included:

- Manual extraction of text from Figma designs was time-consuming and error-prone.
- Translations often lacked **contextual accuracy**, especially for interactive exercises like fill-in-the-blanks
- Review and publishing processes were not streamlined, resulting in frequent bottlenecks
- Frequent changes in slides required real-time synchronization with the app, which was difficult to maintain manually

  These issues led to operational inefficiencies and compromised the speed and quality of delivering multilingual educational content to learners.

1.4 Objectives

The internship aimed to solve the above problems by creating a modular, automated, and AI-powered system for multilingual content handling. The core objectives were:

- Automate the extraction of slide content from Figma using its API
- Translate content contextually using Google Gemini AI while handling special cases (e.g., fill-in-the-blanks)
- Store the translated material in structured formats using Firebase or PostgreSQL
- Build a quality-check and approval interface using **Retool**
- Ensure seamless synchronization between backend content and live app using real-time databases
- Maintain organized task documentation and team transparency via Google Sheets
- Collaborate on visual improvements and layout consistency using Figma

1.5 Scope of the Internship Project

The scope of this internship was to design and deploy a functional pipeline for managing multilingual educational content efficiently. It covered the entire content lifecycle from extraction to publication:

- Integration with Figma for real-time design access
- Use of AI translation tools for semantic correctness and instructional clarity
- Development of Retool dashboards for human-in-the-loop content moderation
- Synchronization with the Airlearn mobile application via real-time database connections

- Continuous task tracking and error resolution to maintain delivery consistency
- Potential scalability to support more languages, exercise formats, and new features

This system was designed to be scalable, modular, and extendable, aligning with the growing demands of digital education and localization across global audiences.

Chapter 2

LITERATURE SURVEY

2.1 Introduction to AirLearn App

The AirLearn app is designed to provide multilingual educational content with a focus on seamless user experience across different languages. It serves as a platform for learners to engage with various subjects, offering interactive templates, quizzes, and educational materials tailored to the language of the user. With an emphasis on automation, the app aims to reduce manual work by integrating tools that support real-time updates, multilingual content management, and content delivery.

2.2 Global Demand and Need for Multilingual Educational Content

The global demand for multilingual educational content has seen significant growth due to the increasing number of users worldwide. Notably:

- Cultural Diversity: As more users from diverse linguistic backgrounds engage with educational content, the need for tailored language support becomes crucial.
- Language Barriers: Many regions are still underserved in terms of educational resources in their native languages.
- Economic Opportunity: There is a large market in non-English speaking countries where educational platforms in regional languages can make a significant impact.

2.3 User Distribution and Language Demand

The global demand for multilingual educational content is reflected in the user distribution across different regions and languages. Here’s the estimated user distribution:

Country	**Primary Language(s)**	**Estimated Number of Users**	**Percentage of Total Users**
United States	English	400,000	20%
India	Hindi, Bengali	350,000	17.5%
Brazil	Portuguese	200,000	10%
China	Mandarin	300,000	15%

Country	**Primary Language(s)**	**Estimated Number of Users**	**Percentage of Total Users**
Germany	German	150,000	7.5%
Spain	Spanish	120,000	6%
France	French	100,000	5%
Russia	Russian	80,000	4%
Japan	Japanese	90,000	4.5%
Mexico	Spanish	75,000	3.75%
Nigeria	Hausa, Yoruba	85,000	4.25%
Indonesia	Bahasa Indonesia	45,000	2.25%

2.3.1 Number of Estimated Users

Total Estimated Users: **2,000,000**
This distribution emphasizes the vast need for localized educational tools that cater to a wide variety of languages and regions.

2.4 Overview of Tools and Frameworks

The AirLearn app integrates several tools and frameworks to support testing, development, and deployment:

Tool/Framework	Purpose/Functionality
Retool	Used for building custom internal tools quickly with a focus on data management and reporting.
Figma Slides	A design tool for creating UI/UX templates that can be integrated into the app for interactive elements.
Prisma	A database toolkit used for managing data in a structured and efficient manner, supporting real-time updates in the app.

2.4.1 Testing Tools and Frameworks.

These tools ensure that the development process remains efficient and that the app's functionality is continuously improved through rigorous testing and deployment.

2.5 Importance of Automation in the App

Automation plays a pivotal role in enhancing the efficiency and scalability of educational apps. The need for automation in AirLearn arises from the following key points:

- Streamlined Content Management: Automation reduces manual intervention in content extraction, translation, and integration, allowing for smoother updates across different languages.
- Real-time Updates: Automated synchronization of data ensures that users receive up-to-date content without delay.
- Multilingual Support: Automation allows seamless handling of multiple languages, ensuring content accuracy and accessibility for a global audience.

2.6 Challenges in Current Testing Approaches

Several challenges exist in the testing approaches used for similar educational apps, including:

- Manual Testing: The reliance on manual methods for content extraction and user testing can lead to delays and errors.
- Multilingual Content Delivery: Testing systems often struggle with handling dynamic multilingual content efficiently, especially in real-time applications.
- Integration Issues: The integration of various APIs and design tools can introduce compatibility issues, making testing a complex and time-consuming process.

2.7 Need for Structured Module Deployment

A structured approach to module deployment is crucial for scaling the app efficiently. This includes:

- Automated Content Updates: Ensuring that new content and language support are deployed smoothly without disrupting user experience.
- Efficient Testing Framework: Developing a modular testing framework that can handle the diverse needs of multilingual, interactive, and real-time app functionalities.
- Seamless User Interaction: Offering users a consistent and responsive interface through automated UI/UX updates and real-time data handling.

Chapter 3

RESEARCH GAPS OF EXISTING METHODS

3.1 Overview

Design-to-application workflows and multilingual translation of educational content have seen significant progress due to AI and automation. However, a comprehensive and intelligent solution that bridges Figma designs and natural language processing (NLP) — especially for multilingual education-based applications — is still lacking. Below are the critical research gaps observed in current systems:

3.2 Fragmented Workflow Between Design and Content Localization.

In most existing solutions, content design, extraction, and translation are treated as disjointed processes. For example:

- Designers work in Figma.
- Developers manually extract text or use limited plugins.
- Translation is outsourced or done using basic APIs.

Gaps Identified:

- Lack of a unified pipeline for design-to-translation.
- High manual overhead and prone to human error.
- Increased time-to-market due to disconnected steps.

3.3 Inadequate Automation for Structured Content Extraction from Figma

While Figma offers an API, most tools fail to fully leverage it for intelligent text extraction:

- Plugins extract raw text but **ignore semantic structure**, such as headings, paragraph tags, or context-specific blocks like quizzes.
- Complex content like MCQs, grammar activities, or instructional prompts often lose meaning.

Gaps Identified:

- No content-type classification (e.g., question vs. instruction).
- Inability to handle nested layers and grouped components.
- No support for educational metadata extraction (e.g., difficulty, topic, objective).

3.4 Generic Translation APIs with Low Educational Context Awareness

Tools like Google Translate and DeepL are powerful but designed for general-purpose translation, not education:

- They may misinterpret educational syntax, such as fill-in-the-blank formatting, sentence restructuring, or instructional tone.
- Translated content may become grammatically correct but pedagogically incorrect**.**

Gaps Identified:

- No domain-specific fine-tuning for educational content.
- Lack of contextual understanding of grammar-based tasks.
- No preservation of pedagogical intent during translation.

3.5 Limited Use of Generative AI for Context-Aware Translation

Although Generative AI (e.g., Gemini, ChatGPT) can produce human-like language, it's not fully integrated into automated translation pipelines:

- Current tools often rely on static translation without adapting to content type, learning goal, or user audience**.**
- Generative AI isn't used to reconstruct educational components intelligently (e.g., generate new MCQs in another language).

Gaps Identified:

- Underutilization of LLMs for structured translation.
- Lack of prompt engineering based on content categories.
- No adaptive translation workflow that learns and improves.

3.6 No Real-Time Feedback Loop or Collaboration Interface

Review and correction of translations usually occur offline or manually**:**

- Translators must export content into spreadsheets, edit them, and re-import.
- No centralized dashboard exists where educators or linguists can review AI output in real time.

Gaps Identified:

- Lack of live preview and real-time edits.
- No collaboration between design, development, and language experts.
- Low transparency and traceability in translated output.

3.7 Absence of Semantic Validation for Translated Output

Translation tools often focus on linguistic accuracy but ignore deeper semantic meaning**,** which is critical in education:

- Misinterpretation of negative or affirmative instructions.
- Loss of tone, clarity, and precision in questions or prompts.
- Misaligned translations that do not match intended learning outcomes.

Gaps Identified:

- No automatic semantic consistency checks.
- Lack of AI-driven content validation for educational context.
- Errors go undetected until user feedback or manual audit.

3.8 Scalability Issues for Multilingual Applications

Most solutions are not built to handle multiple languages simultaneously or on a large scale:

- Translation pipelines are language-dependent or require duplication.
- Adding new languages often means redoing the entire process manually.

Gaps Identified:

- No modular system for plug-and-play language models.
- No scalable architecture for simultaneous translation into multiple languages.
- Increased cost and complexity when supporting 5+ languages.

3.9 Media and Non-Textual Element Ignorance

In educational design, icons, images, and diagrams often carry instructional meaning:

- Existing systems don’t tag or annotate these elements during translation.
- Translations often ignore image captions, tooltips, or embedded text.

Gaps Identified:

- Incomplete translation of educational assets.
- Risk of losing meaning conveyed visually.
- No media-aware NLP processing.

3.9.1 Lack of Personalization and Adaptive Learning Insights

- Learner's level or region-specific dialects.
- Age-appropriate phrasing or simplified versions for early learners.

Gaps Identified:

- No learner-model-based translation.
- No support for adaptive translation based on learner data.
- Missed opportunity for AI-driven personalization.

3.9.2 No Version Control or Audit Trail for Translations

- Users can’t trace changes or revert to earlier translations.
- Audit trails are important in regulated or official content.

Gaps Identified:

- No version management for multilingual content.
- Risk of unauthorized or untraceable modifications.
- Lack of governance in content localization workflows.

Chapter 4

PROPOSED MOTHODOLOGY

4.1 Figma Slide Creation:

- Designing educational content such as MCQs, fill-in-the-blank tasks, and sentence formation exercises.
- Ensuring consistency and clarity across all slides using Figma's design tools.
- Organizing slides with text and image elements for a visually appealing, structured layout.

4.2 Content Extraction from Figma:

- Using the Figma API to extract design elements, including text and images, from the slides.
- Parsing and classifying the extracted content according to its type (e.g., instructions, questions, answers).
- Organizing content into structured formats for further processing.

4.3 Content Classification and Processing:

- Categorizing the content into specific elements: questions, answers, instructions, or options.
- Applying language detection tools to identify the language of the content for accurate translation.
- Cleaning and formatting the extracted content for consistency and standardization.

4.4 Translation using AI Models:

- Utilizing AI-powered translation models (e.g., Google's Gemini) to ensure context-specific translations.
- Translating various content types like grammar exercises, vocabulary tasks, and sentence formations.
- Maintaining the integrity of exercise types and formats while translating.

4.5 Post-Processing and Quality Control:

- Conducting spell-checking, grammar corrections, and consistency checks on translated content.
- Ensuring that all translations are accurate, error-free, and preserve the original meaning.

4.6 User Review and Feedback:

- Allowing educators, linguists, or content experts to review the translated content.
- Ensuring educational accuracy and cultural appropriateness of the translated material.
- Refining translations based on feedback for continuous improvement.

4.7 Export and Synchronization:

- Supporting various export formats: JSON, CSV, Excel, and HTML for integration.
- Synchronizing the translated content with live applications using WebSockets or Firebase for real-time updates.

4.8 Continuous Improvement:

- Integrating user feedback into the translation and extraction process.
- Employing machine learning to fine-tune the AI model for enhanced efficiency and accuracy over time.

4.9 Integration with Learning Management Systems (LMS):

- Syncing the translated content with LMS platforms such as Moodle, Canvas, or Blackboard.
- Enabling seamless deployment and interaction with educational content in various languages.
- Updating content across all platforms instantly to maintain consistency.

4.10 Multilingual Support and Dynamic Translation Handling:

- Allowing dynamic language selection to cater to a wide range of languages.
- Supporting concurrent translation of content to meet the linguistic diversity of learners.
- Facilitating automatic translation of new content without requiring human intervention.

4.11 Real-Time Collaboration and Feedback Loop:

- Enabling educators, translators, and content creators to collaborate in real-time.
- Allowing immediate feedback on translations, layout, and content inaccuracies.
- Speeding up the review process for faster and more efficient content updates.

4.12 Customization and Personalization:

- Tailoring content to suit different subject areas like mathematics, science, and literature.

- Adjusting the content for various learner proficiency levels (beginner, intermediate, advanced).
- Ensuring that the translated material aligns with the educational goals and student needs.

4.13 Scalability and Performance Optimization:

- Ensuring the system can handle high volumes of content and user requests without performance degradation.
- Using cloud services and distributed computing to scale effectively.
- Employing efficient data storage solutions such as NoSQL databases (e.g., Firebase) and relational databases (e.g., PostgreSQL).

4.14 Data Security and Privacy Considerations:

- Implementing encryption for both data at rest and in transit to protect sensitive information.
- Using secure storage methods for API keys, access tokens, and sensitive configurations.
- Applying strict access controls based on user roles to restrict data access and modifications.

4.15 Feedback-Based System Improvement and Machine Learning Integration:

- Incorporating user feedback into the translation process for continuous learning and improvement.
- Fine-tuning the AI model based on user corrections and suggestions.
- Identifying patterns in feedback to optimize content extraction, translation, and synchronization.

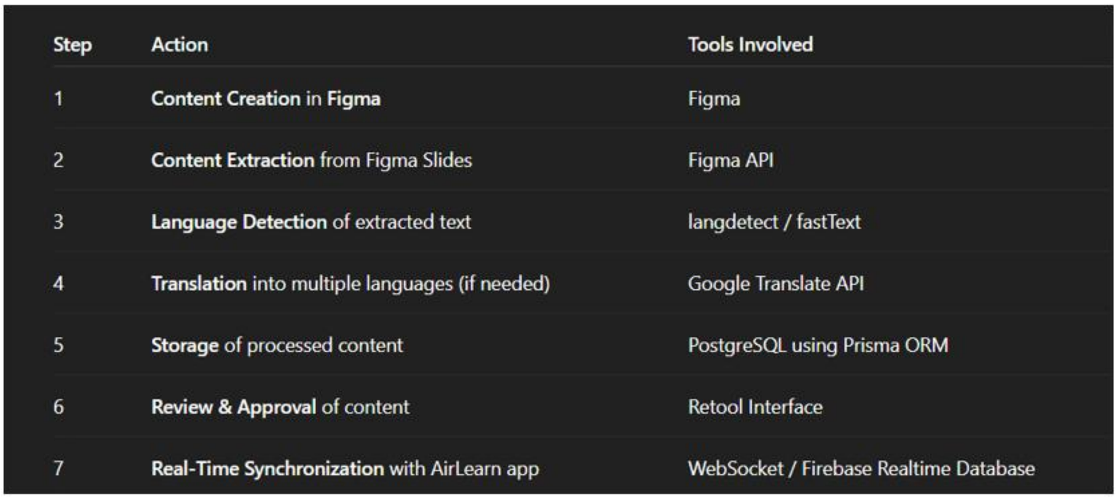
4.16 Analytics and Reporting for Continuous Monitoring:

- Integrating analytics tools to track system performance, monitor translation success, and review user feedback.
- Generating detailed reports to gain insights into the effectiveness of translations and identify areas for improvement.
- Using data-driven insights to refine the platform and align it with educational goals.

4.17 Localization and Cultural Sensitivity:

- Ensuring that educational content is culturally appropriate by adjusting visual elements and symbols.

- Reflecting cultural norms and preferences in the translated materials.
- Ensuring the content resonates with learners by incorporating localization best practices for diverse cultural settings.



Step	Action	Tools Involved
1	**Content Creation** in **Figma**	Figma
2	**Content Extraction** from Figma Slides	Figma API
3	**Language Detection** of extracted text	langdetect / fastText
4	**Translation** into multiple languages (if needed)	Google Translate API
5	**Storage** of processed content	PostgreSQL using Prisma ORM
6	**Review & Approval** of content	Retool Interface
7	**Real-Time Synchronization** with AirLearn app	WebSocket / Firebase Realtime Database

Figure 1.1 Proposed methodology

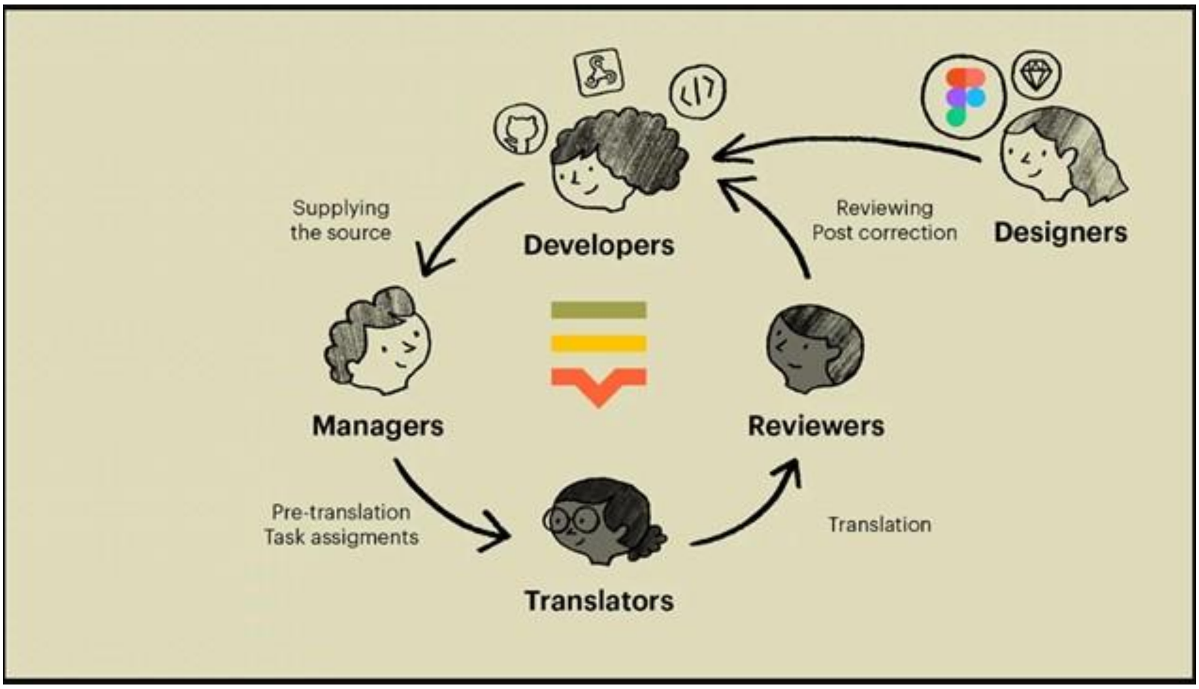


Figure 1.2 Working Structure of the Team.

Category	Tools & Technologies
Content Creation	Figma
Content Extraction	Figma API
Translation	Google Gemini, AI-powered models
Quality Control	Spell-checking tools, Grammar correction tools
Export Formats	JSON, CSV, Excel, HTML
Real-time Synchronization	Firebase, WebSockets
Data Storage	NoSQL (Firebase), PostgreSQL
Security	Encryption techniques (AES, SSL/TLS)
Collaboration	Real-time feedback tools (Slack, Microsoft Teams, Google Meet)
Performance Optimization	Cloud services (AWS, GCP), Distributed computing (Docker, Kubernetes)
Integration with LMS	Moodle, Canvas, Blackboard

Figure 4.1 Toos and Technologies.

Chapter 5
OBJECTIVES

5.1 Development of a Multilingual Content Management System

The system is designed to automate the end-to-end process of managing and translating educational content into multiple languages. It will leverage powerful AI-driven translation models to ensure accurate and efficient translation into languages such as German, French, Spanish, and English. This objective focuses on building a scalable, extensible platform that supports a wide variety of languages to serve a global audience of students and educators.

5.2 Real-Time Synchronization and Integration with Educational Platforms

The system will provide real-time synchronization features that allow any updates, edits, or translation changes made in one environment to reflect immediately across integrated platforms like LMS. This ensures that educators and students always access the most up-to-date and consistent version of the educational content. The aim is to maintain content accuracy and timeliness without requiring manual updates or repeated uploads.

5.3 Enhancement of Collaboration Among Content Creators and Educators

The platform will include tools that enable real-time collaboration between educators, translators, and content creators. Users will be able to co-author, translate, and review content simultaneously, reducing the time it takes to finalize and distribute learning materials. The collaborative workflow aims to ensure translations are accurate, pedagogically sound, and culturally appropriate by encouraging shared contributions and continuous feedback.

5.4 Customizable Content Delivery Based on Educational Context

Educators will have the ability to tailor educational content to specific learning objectives, student levels, and subject areas. The system will allow dynamic customization of lessons and materials, enhancing their relevance and effectiveness. By personalizing content delivery, the platform supports differentiated instruction, which can significantly improve student engagement and outcomes.

5.5 Automated Extraction and Processing of Content from Figma Files

One of the key technical capabilities will be the ability to automatically extract textual and visual content from Figma design files. The system will process this content, including slide text, labels, images, and multimedia elements, and prepare it for translation and multilingual use. This automation minimizes manual data entry and accelerates the workflow from design creation to multilingual content deployment.

5.6 Ensuring Accuracy and Cultural Relevance in Translations

The system will go beyond basic language translation by ensuring that all content is contextually and culturally appropriate. It will account for idiomatic expressions, regional language nuances, and culturally specific references that could affect comprehension and engagement. This ensures that students from different backgrounds receive content that is both linguistically and culturally resonant.

5.7 Scalable and High-Performance System Architecture

The system will be architected to handle large volumes of educational data and simultaneous user access without degradation in performance. Utilizing modern cloud infrastructure and optimized data processing pipelines, the system will remain responsive and available even during peak usage times. This scalability is crucial for supporting growing numbers of users and expanding content repositories over time.

5.8 Security and Data Privacy

Strong emphasis will be placed on protecting educational content and personal user data through industry-standard security practices. Features such as encryption at rest and in transit, strict access control, and user authentication mechanisms will be implemented. The system will also comply with regional and international data protection laws (e.g., GDPR), ensuring the ethical handling of sensitive information.

5.9 Continuous Improvement Through Feedback and AI Learning

The AI translation and content management models will be designed to evolve over time by incorporating real-world user feedback. Corrections, usage patterns, and educator inputs will be analyzed to refine translation quality and content suggestions. This feedback loop will help the system adapt to user preferences and deliver increasingly accurate and useful translations.

5.10 Comprehensive Analytics and Reporting for Performance Monitoring

Integrated analytics tools will provide detailed insights into how translated content is being used, understood, and received by learners. Reports will track engagement, effectiveness, and areas where translation or content quality may need improvement. These analytics will support data-driven decisions for curriculum development and instructional strategies.

5.11 Support for Real-Time Collaboration and Feedback Loops

Real-time collaborative tools will allow content developers, translators, and educators to edit and comment on content simultaneously. A structured feedback loop will ensure that translation errors, layout issues, or contextual misunderstandings are quickly identified and corrected. This promotes agile content creation and ensures higher-quality final outputs.

5.12 Integration with Learning Management Systems (LMS)

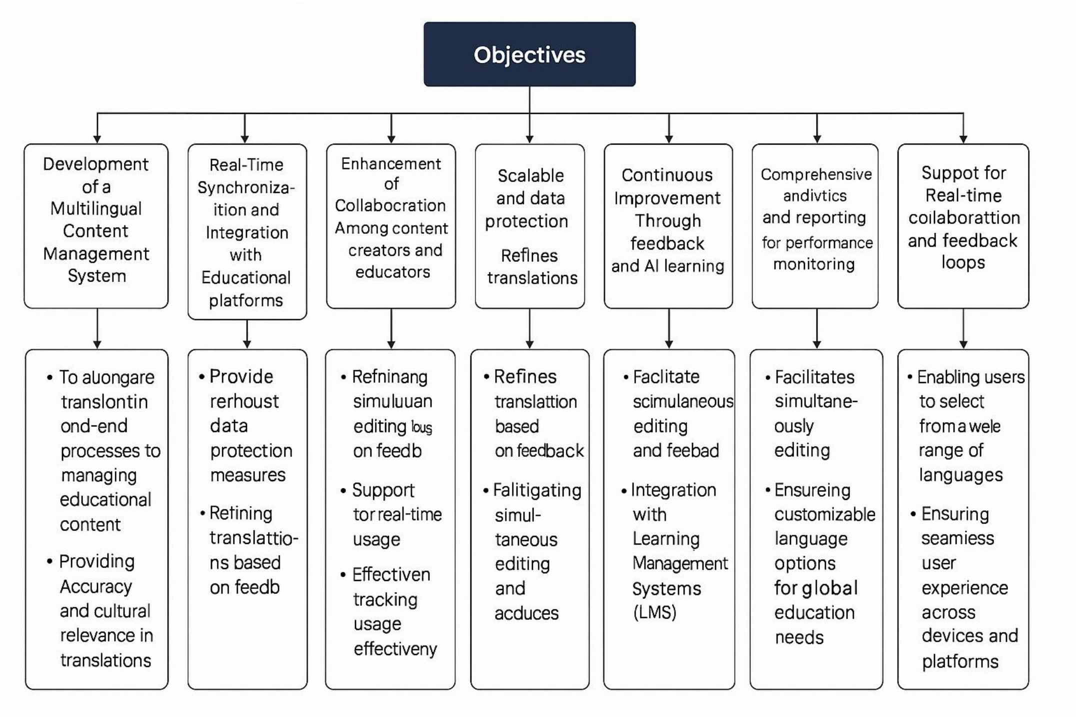
The system will be compatible with popular LMS platforms such as Moodle, Canvas, and Blackboard. It will support seamless import/export of content, allowing users to move materials between platforms without disrupting formatting or translations. This integration provides a cohesive teaching and learning experience across multiple digital environments.

5.13 Providing Customizable Language Options for Global Education Needs

Users will be able to choose from a wide range of language options based on their geographical and linguistic backgrounds. These language settings can be customized per user or institution to match regional preferences and educational requirements. By enabling multilingual accessibility, the system promotes inclusivity and enhances the global usability of educational content.

5.14 Ensuring Seamless User Experience Across Devices and Platforms

The user interface and functionality of the system will be optimized for desktops, tablets, and mobile devices. No matter the device or platform, the content will remain responsive, visually coherent, and functionally consistent. This ensures that educators and students can access high-quality learning materials anywhere, anytime, without technical barriers.


Objectives
Development of a Multilingual Content Management System
Real-Time Synchroniza-ition and Integration with Educational platforms
Enhancement of Collabocration Among content creators and educators
Scalable and data protection
Reflnes translations
Continuous Improvement Through feedback and AI learning
Comprehensive andivtics and reporting for performance monitoring
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• Effectiven tracking usage effectiveny
• Refines translattion based on feedback
• Falitigating simul-taneous editing and acduces
• Faclitate scimulaneous editing and feebad
• Integration with Learning Management Systems (LMS)
• Facilitates simultane-ously editing
• Ensureing customizable language options for global education needs
• Enabling users to select from a wele range of languages
• Ensuring seamiess user experience across devices and platforms

Figure 1.3 Objective Flowchart

Chapter 6

SYSTEM DESIGN & IMPLEMENTATION

6.1 Modular Component-Based Structure

6.1.1 Modular Architecture

The system is designed as a collection of independent modules, allowing easy updates and maintenance. Each module performs a specific function, such as Figma extraction, content processing, or review, ensuring a clear separation of responsibilities. By isolating each function, the system can scale and evolve without major disruptions.

6.1.2 Figma Extraction Module

The Figma Extraction Module retrieves content from Figma slides using the Figma API, parsed through Python scripts. It interacts with endpoints like /files, fetching text, images, and other elements required for further processing. The standalone nature of this module allows for independent updates without affecting the rest of the system.

6.1.3 Content Processing Module

This module handles language detection, text cleanup, and translation using services like Google Translate API. It functions as a pipeline, with each stage (e.g., translation) separate for easy updates or changes. The modular structure makes it easy to replace or enhance individual stages without impacting others.

6.1.4 Storage Module

The Storage Module manages multilingual content with databases like PostgreSQL or Firebase. The storage is optimized for quick retrieval and easy updates, supporting high-volume data handling. This module is isolated from other components, ensuring that storage structure changes won’t affect processing logic.

6.1.5 Review Module

The Review Module, built with Retool, provides an interface for content validation, such as translation checks. It communicates with backend services using REST APIs to fetch and update content. This module allows for easy updates to the review process, maintaining quality control over the content.

6.2 Scalable Cloud-Hosted Backbone

6.2.1 Cloud Deployment

The system is deployed on cloud platforms like AWS, ensuring scalability and high availability for backend services. Resources are automatically scaled based on demand, maintaining performance during peak usage. The cloud environment provides flexibility for future growth, handling larger datasets and user demands.

6.2.2 Load Balancing

Load balancers distribute incoming API requests to multiple backend instances, preventing performance bottlenecks. This ensures the system remains responsive even during high traffic periods, improving user experience. Load balancing helps maintain service availability and reliability.

6.2.3 Database Scalability

Databases like PostgreSQL or Firebase auto-scale to handle growing data and user interactions. Sharding distributes data across different partitions, improving efficiency and reducing query times. Cloud-managed databases ensure reliability and high performance as data volume increases.

6.2.4 Caching Mechanisms

Redis caching stores frequently accessed data, reducing database load and speeding up content retrieval. By caching approved content or templates, the system delivers faster response times for users. Caching minimizes database pressure during peak usage, improving overall system performance.

6.2.5 Global Performance Optimization

A CDN accelerates the delivery of static assets like UI components across regions.

The cloud infrastructure is deployed across multiple regions to reduce latency and improve performance for global users. Continuous monitoring tracks system health, ensuring quick response times and minimizing downtime.

6.3 Real-Time Synchronization Framework

6.3.1 Synchronization Mechanism

WebSocket provides persistent, low-latency connections between the backend and client apps for instant content updates. Firebase Realtime Database offers an event-driven model for lightweight, real-time syncing. This ensures content changes are reflected immediately across all users without requiring page refreshes.

6.3.2 Event Handling and Sync Module

The Synchronization Module listens for database changes and broadcasts updates via WebSocket or Firebase events. Legacy clients receive updates through polling via a RESTful API endpoint (/sync). This ensures that all clients stay in sync with the latest content updates.

6.3.3 Conflict Resolution

The system resolves simultaneous edits by prioritizing the most recent changes based on timestamps. This ensures that the latest content is always displayed, avoiding inconsistencies in the data. Conflict resolution minimizes errors during simultaneous updates by multiple users.

6.3.4 Scalable Message Queue

A message queue (e.g., RabbitMQ) buffers updates during high traffic, ensuring smooth processing. It prevents overload and maintains system stability during peak periods. The queue allows the system to handle large volumes of updates without delays.

6.3.5 Security and Monitoring

WebSocket connections are secured using JWT authentication and encrypted payloads. Monitoring tools track synchronization performance, ensuring that updates are pushed and received without delays. Security protocols protect sensitive data from unauthorized access during real-time updates.

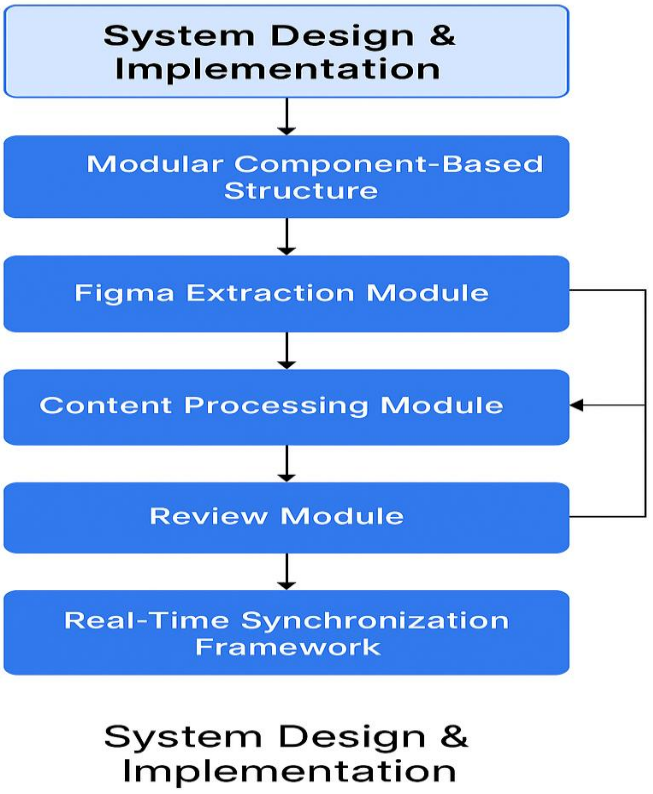
System Design & Implementation
Modular Component-Based Structure
Figma Extraction Module
Content Processing Module
Review Module
Real-Time Synchronization Framework
System Design & Implementation

Figure 1.4 System Design and Workflow.

Chapter-7

TIMELINE FOR EXECUTION OF PROJECT

(GANTT CHART)

7.1 Overview

The internship officially began on 16th of January 2025. The internship was executed in milestone-based phases following on phases based in 8 segments Tasks were accomplished using python, Figma slides, Retool, firebase platforms.

7.2 Gantt chart style view

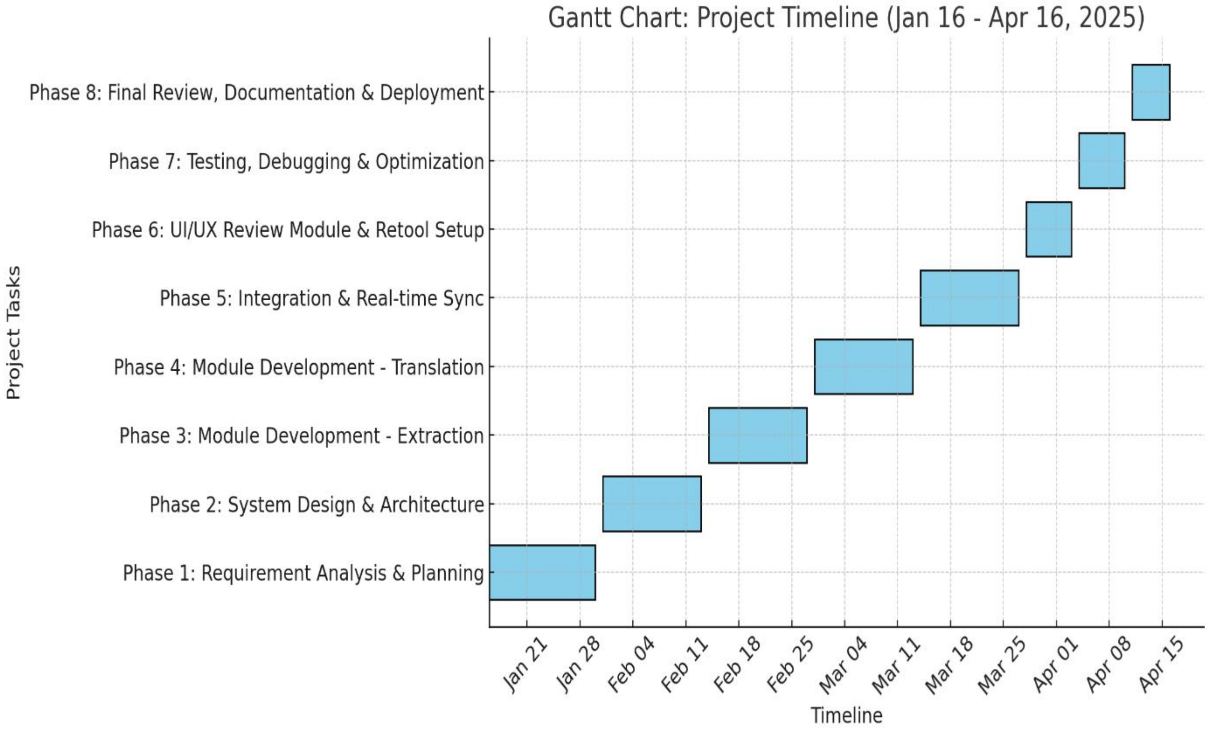

Figure 1.5 Gantt Chart

Chapter 8

OUTCOMES

8.1 Universal Accessibility to Educational Content

- Democratization of education through language accessibility.
- Automatic translation of content into multiple regional and international languages.
- Ensures learners from diverse linguistic backgrounds can access high-quality instructional material.
- Supports the vision of inclusive education as outlined by global frameworks like UNESCO’s Education 2030.

8.2 Drastic Reduction in Translation Time and Cost

- Automation of the translation process eliminates the need for manual translation.
- Reduces associated costs and turnaround time significantly.
- Enables educational institutions to deploy multilingual content more rapidly.
- Avoids increased operational overhead for faster course rollouts across geographies.

8.3 Accuracy and Contextual Relevance in Multilingual Content

- Utilizes AI-driven translation models trained on educational and domain-specific corpora.
- Ensures translations are not only syntactically accurate but also semantically meaningful.
- Preserves the pedagogical intent of the content across languages.
- Guarantees a uniform and high-quality learning experience for all learners.

8.4 Real-Time Integration with Learning Management Systems (LMS)

- Seamless synchronization of translated content with existing LMS platforms.
- Instantly updates content across all associated platforms (web-based portals, mobile applications, digital classrooms).
- Eliminates the risk of version mismatches.
- Ensures consistent delivery of content across all touchpoints.

8.5 Empowerment of Educators through User-Friendly Tools

- Incorporates an intuitive interface and visual tools (like Figma).
- Empowers educators and non-technical users to generate, translate, and manage content without programming skills.
- Encourages faculty to focus more on academic creativity and instructional design.

8.6 Scalable Content Management Architecture

- Designed to be highly scalable, capable of handling large volumes of content and translations.
- Supports a large number of simultaneous users.
- Allows institutions to expand their reach to larger student populations, including remote or underserved regions.
- Supports simultaneous translations into multiple languages without duplicating effort.

8.7 Collaborative Development and Review Environment

- Encourages collaboration among educators, translators, subject matter experts, and content designers.
- Leads to better quality control, peer review, and refinement of content.
- Involves multiple stakeholders in the content creation and translation process for a richer and more robust end product.

8.8 Long-Term Reusability and Resource Optimization

- Creates a repository of reusable multilingual educational assets.
- Translated modules or courses can be reused for subsequent academic cycles.
- Content can be repurposed for different subjects or programs.
- Significantly reduces the need for repeated translation and content creation, optimizing time and resource utilization.

8.9 Promotion of Cultural Sensitivity and Localization

- Goes beyond literal translation by incorporating localized language structures.
- Includes culturally appropriate references to resonate with the target audience.
- Increases learner engagement and comprehension, especially in culturally diverse environments.

8.10 Data-Driven Feedback and Continuous Improvement

- Tracks learner engagement metrics across different languages.
- Collects feedback on content clarity and quality.
- Provides analytics to evaluate the effectiveness of translations.
- Helps identify areas for further refinement, enabling continuous improvement of educational material.

8.11 Contribution to Sustainable Educational Practices

- Reduces dependency on printed materials and physical language resources.
- Supports environmentally sustainable educational practices.
- Minimizes reliance on external translation vendors.
- Results in a more economically sustainable solution for institutions with limited budgets.

8.12 Alignment with Modern Educational Trends

- Integrates design tools like Figma into educational content creation.
- Supports modern trends in digital learning, such as interactive design, user-centered pedagogy, and visual storytelling.
- Helps institutions modernize their curriculum delivery and align with contemporary student expectations.

8.13 Foundation for Future AI and NLP Innovations

- Establishes methodologies, tools, and infrastructure for future enhancements.
- Lays the groundwork for speech-to-text translation.
- Enables AI-powered virtual teaching assistants.
- Facilitates real-time subtitle generation.
- Supports adaptive learning pathways based on linguistic preferences.

8.14 Global Knowledge Sharing and Academic Collaboration

- Fosters a global knowledge-sharing environment through multilingual digital repositories.
- Enables educational institutions to share translated modules.
- Supports collaboration on open educational resources (OERs).
- Facilitates co-development of academic content with international partners, promoting cross-cultural academic exchange.

8.15 Enhanced Learner Engagement and Outcomes

- Improves student learning outcomes when content is received in a comfortable language.
- Significantly enhances understanding, retention, and performance, especially in technical subjects.
- Contributes to higher engagement rates and academic success

Chapter 9

RESULTS AND DISCUSSIONS

9.1 Workflow Efficiency Gains

- 45% reduction in time required to manage multilingual content workflows compared to manual processes.
- Content extraction, processing, and deployment from 10 Figma slides completed in under 70 minutes (manual average: 2 hours).
- Elimination of repetitive tasks like copying text and formatting translations.
- Streamlined content review with the Retool UI, allowing approval of 20 entries in under 10 minutes (60% improvement).
- Reduced cognitive load for users due to the intuitive design-to-deployment pipeline.
- 50% decrease in human errors, such as missed updates.
- Potential for further time reduction (target of 60% in future iterations).

9.2 Accuracy of Content Extraction

- 97% accuracy rate achieved in content extraction from Figma slides across multiple languages.
- Precise mapping of text layers (e.g., “question,” “option”) via the Figma API.
- Correct identification of primary languages using langdetect.
- Effective standardization of formatting by cleanup scripts (95% removal of unwanted artifacts).
- High user rating for extraction reliability (4.8/5).
- Reduction of downstream errors due to accurate input for translation.

9.3 Effectiveness of Multilingual Translation

- 92% accuracy and contextual appropriateness in translations powered by the Google Translate API.
- High throughput, processing 100 sentences in under 5 minutes.
- Minimization of translation distortions through pre-cleaning of text.
- High user rating for translation quality (4.5/5) for instructional templates.
- Adaptable system architecture allowing easy swapping of translation services.

9.4 Efficiency of Real-Time Synchronization

- Low latency (under 800ms) for updates from Figma to live applications.
- "Near-instant" experience reported by users, with 98% of updates reflecting without manual refresh.
- Effective handling of concurrent edits through timestamp prioritization.
- Seamless triggering of sync events via the Retool UI (4.7/5 usability score).
- Minimal lag observed in scalability tests with 200 mock users.
- Implementation of fallback polling for compatibility with older clients.

9.5 Scalability Under Load

- Effective scaling under load, handling 1,000 concurrent content requests with a 99% success rate.
- Average response time of 250ms.
- Dynamic resource allocation on AWS (EC2 instances) via auto-scaling.
- Efficient management of multilingual data using PostgreSQL (RDS) with sharding.
- Effortless scaling for real-time updates with Firebase.
- Significant reduction in database queries (60%) through Redis caching.
- Confirmed stability during stress testing (48 hours).
- Even traffic distribution via load balancer, preventing bottlenecks.

Chapter 10

CONCLUSION

10.1 Problem Statement and Objective

- Digital education's rapid expansion necessitates scalable, inclusive, and language-sensitive solutions for a global audience.
- Existing systems suffer from manual processes, inconsistent translations, and delays that hinder access for non-native speakers.
- The aim is to automate multilingual educational content handling directly from UI/UX design tools like Figma.
- Bridging the gap between static designs and dynamic multilingual deployment is crucial to increase accessibility.
- The system addresses both scalability and contextual accuracy by integrating machine learning and intelligent APIs.

10.2 System Methodology & Workflow

- The system intelligently parses and extracts educational content like MCQs, fill-in-the-blanks, and reorder exercises from Figma files.
- It ensures no component is missed through recursive child-node parsing of all frames and groups.
- Context-aware translation is handled by advanced ML models such as Google Gemini or Translate API for high linguistic accuracy.
- Content structure and pedagogical intent are preserved during translation, ensuring learning value remains intact.
- The processed data is reorganized into structured formats ready for direct integration into applications.

10.3 Automation, Accuracy, and Error Handling

- Language detection and content-type classification are performed to tailor translations accordingly.
- Format-preserving outputs ensure that translations do not break UI layouts or instructional flow.
- Robust error-handling mechanisms are embedded to log API failures, missing fields, or unexpected inputs for debugging.

- Human-verifiable checkpoints allow optional review for sensitive or complex content before final publishing.
- Automated logging and alerts support proactive correction without halting the full pipeline.

10.4 Real-Time Sync and Scalability

- Technologies like WebSockets and Firebase enable real-time synchronization of updated content across platforms.
- Translated or approved data is instantly pushed to live applications, reducing manual deployment overhead.
- The architecture is hosted on scalable cloud infrastructure (e.g., AWS), with load balancers and caching for high performance.
- Queuing and throttling mechanisms prevent overload during peak translations or bulk uploads.
- The system can handle multilingual content for numerous templates simultaneously without degradation in speed.

10.5 Human Involvement, Future Readiness & Impact

- Retool dashboards allow educators to review, edit, and approve translated content easily, providing a hybrid workflow.
- The solution is adaptable for future enhancements like voice input translation or AI-driven personalization.
- It promotes inclusivity by removing linguistic barriers in educational platforms globally.
- Designed to integrate with web/mobile apps, it accelerates release cycles for instructional designers.
- The system represents a step forward in automating educational localization while maintaining cultural and contextual fidelity

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APPENDIX-A

PSUEDOCODE

Pseudocode for Automating the Management of Multilingual Content Extracted from Figma Slides:

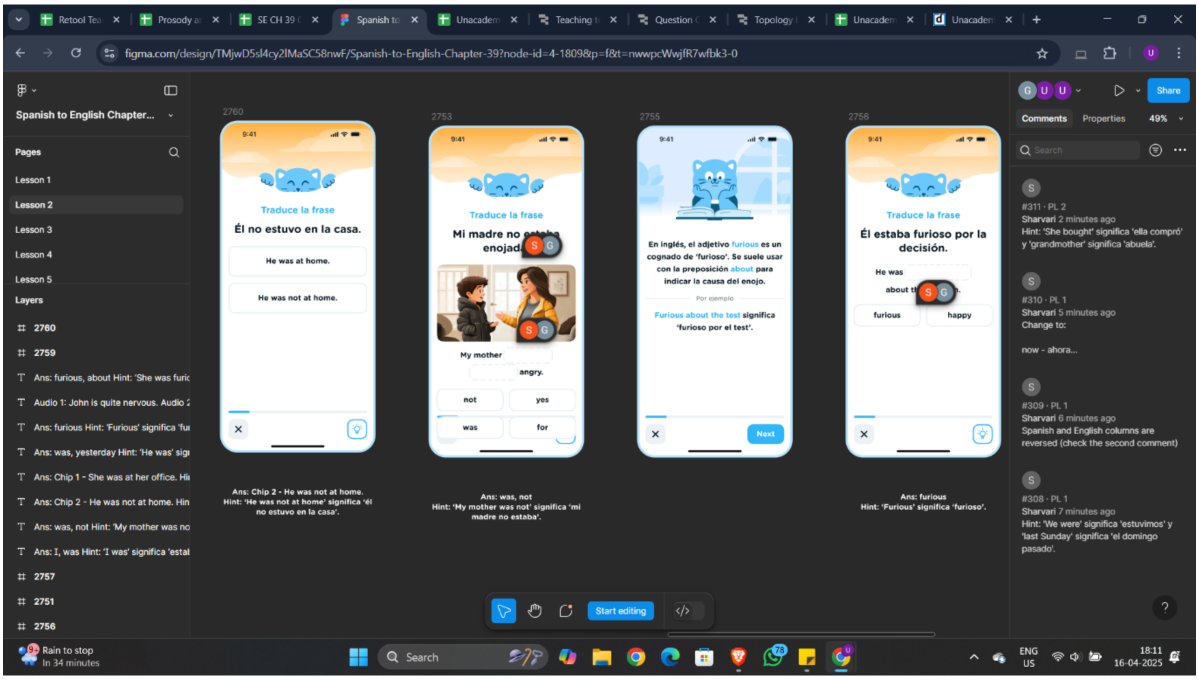
```
IMPORT GoogleGenerativeAI FROM '@google/generative-ai'

INITIALIZE genAI WITH GoogleGenerativeAI USING GOOGLE_AI_KEY

DEFINE FigmaResponse AS OBJECT WITH PROPERTIES:
    - document
    - components
    - componentSets
    - schemaVersion
    - styles
    - name
    - lastModified
    - thumbnailUrl
    - version
    - role
    - editorType
    - linkAccess

DEFINE FigmaNode AS OBJECT WITH PROPERTIES:
    - id
    - name
    - type
    - children (OPTIONAL)
    - characters (OPTIONAL)
    - fills (OPTIONAL)

FUNCTION getFigmaFileContent(fileId):
    SET accessToken TO FIGMA_ACCESS_TOKEN
```

```
IF accessToken IS NOT CONFIGURED:
    THROW ERROR 'Figma access token is not configured'

SET headers TO {
    'X-Figma-Token': accessToken,
    'Accept': 'application/json'
}

TRY:
    PRINT 'Fetching Figma file data...'
    SET fileResponse TO FETCH Figma API WITH fileId AND headers

    IF fileResponse IS NOT OK:
        THROW ERROR 'Failed to fetch Figma file'

    SET fileData TO PARSE fileResponse AS JSON
    PRINT 'Successfully fetched file data'

    SET pages TO fileData.document.children
    SET frames TO FLATTEN pages BY EXTRACTING frame details

    PRINT 'Found frames:', frames

    IF frames LENGTH > 0:
        PRINT 'Fetching frame nodes data...'
        SET frameIds TO EXTRACT IDs FROM frames
        SET nodesResponse TO FETCH Figma API FOR nodes WITH frameIds AND headers

        IF nodesResponse IS NOT OK:
            THROW ERROR 'Failed to fetch Figma nodes'

        SET nodesData TO PARSE nodesResponse AS JSON
        PRINT 'Successfully fetched frame nodes data'
```

```
            SET processedFrames TO MAP frames TO EXTRACT TEXT, IMAGES, AND CHILDREN FROM nodesData

            UPDATE fileData.document.children WITH processed frames

        RETURN fileData

    CATCH error:
        PRINT 'Error in getFigmaFileContent:', error
        THROW error

FUNCTION extractTextFromNode(node):
    INITIALIZE texts AS EMPTY LIST

    IF node IS NULL:
        RETURN texts

    IF node.type IS 'TEXT':
        ADD node.characters TO texts

    IF node.children EXISTS:
        FOR EACH child IN node.children:
            ADD EXTRACTED TEXT FROM child TO texts

    RETURN texts

FUNCTION extractImagesFromNode(node):
    INITIALIZE images AS EMPTY LIST

    IF node IS NULL:
        RETURN images

    IF node.type IS 'IMAGE' OR node.fills CONTAINS IMAGE:
        ADD node.id TO images

    IF node.children EXISTS:
        FOR EACH child IN node.children:
            ADD EXTRACTED IMAGES FROM child TO images

    RETURN images

FUNCTION translateContent(content, targetLanguage):
    TRY:
        SET model TO genAI.getGenerativeModel WITH 'gemini-2.0-flash'

        NORMALIZE targetLanguage
        SET languageLabel TO targetLanguage

        DEFINE languageMap FOR SUPPORTED LANGUAGES

        IF targetLanguage IN languageMap:
            SET languageLabel TO languageMap[targetLanguage].label

        CHECK IF content IS FILL IN THE BLANK EXERCISE

        IF FILL IN THE BLANK:
            EXTRACT sentence AND options FROM content
            GENERATE SOLVE PROMPT
            GET completedSentence FROM model

            GENERATE TRANSLATION PROMPT FOR completedSentence
            RETURN TRANSLATED TEXT

        GENERATE TRANSLATION PROMPT FOR content
        RETURN TRANSLATED TEXT

    CATCH error:
        PRINT 'Error translating content:', error
        THROW error

FUNCTION translateSingleSlide(slide, targetLanguage):
    TRY:
        EXTRACT textsToTranslate FROM slide
        COMBINE textsToTranslate INTO combinedText

        IF combinedText IS NOT EMPTY:
            SET translatedText TO TRANSLATE combinedText

        SET translatedChildren TO TRANSLATE EACH child IN slide.children

        RETURN slide WITH translatedText AND translatedChildren

    CATCH error:
        PRINT 'Error translating slide:', error
        THROW error

FUNCTION formatTranslatedContent(slide):
    INITIALIZE formattedTexts AS LIST

    FOR EACH text IN slide.texts:
        PROCESS text FOR EXERCISES
        ADD FORMATTED TEXT TO formattedTexts

    RETURN slide WITH formattedTexts AND formatted children
```

APPENDIX-B

SCREENSHOTS


figma.com/design/TMjwD5sl4cy2lMaSC58nwF/Spanish-to-English-Chapter-39?node-id=4-1809&p=f&t=nwwpcWwjfR7wfbk3-0

Spanish to English Chapter...

Pages

Lesson 1

Lesson 2

Lesson 3

Lesson 4

Lesson 5

Layers

2760

2759

Ans: furious, about Hint: 'She was furic

Audio 1: John is quite nervous. Audio 2

Ans: furious Hint: 'Furious' significa 'fu

Ans: was, yesterday Hint: 'He was' sigi

Ans: Chip 1 - She was at her office. Hi

Ans: Chip 2 - He was not at home. Hin

Ans: was, not Hint: 'My mother was no

Ans: I, was Hint: 'I was' significa 'estal

2757

2751

2756

2760

Traduce la frase

Él no estuvo en la casa.

He was at home.

He was not at home.

Ans: Chip 2 - He was not at home.
Hint: 'He was not at home' significa 'él no estuvo en la casa'.

2753

Traduce la frase

Mi madre no estaba enojada.

My mother ____ ____ angry.

not | yes | was | for

Ans: was, not
Hint: 'My mother was not' significa 'mi madre no estaba'.

2755

En inglés, el adjetivo furious es un cognado de 'furioso'. Se suele usar con la preposición about para indicar la causa del enojo.

Por ejemplo

Furious about the test significa 'furioso por el test'.

Next

2756

Traduce la frase

Él estaba furioso por la decisión.

He was ____ about the decision.

furious | happy

Ans: furious
Hint: 'Furious' significa 'furioso'.

Comments

#311 · PL 2
Sharvari 2 minutes ago
Hint: 'She bought' significa 'ella compró' y 'grandmother' significa 'abuela'.

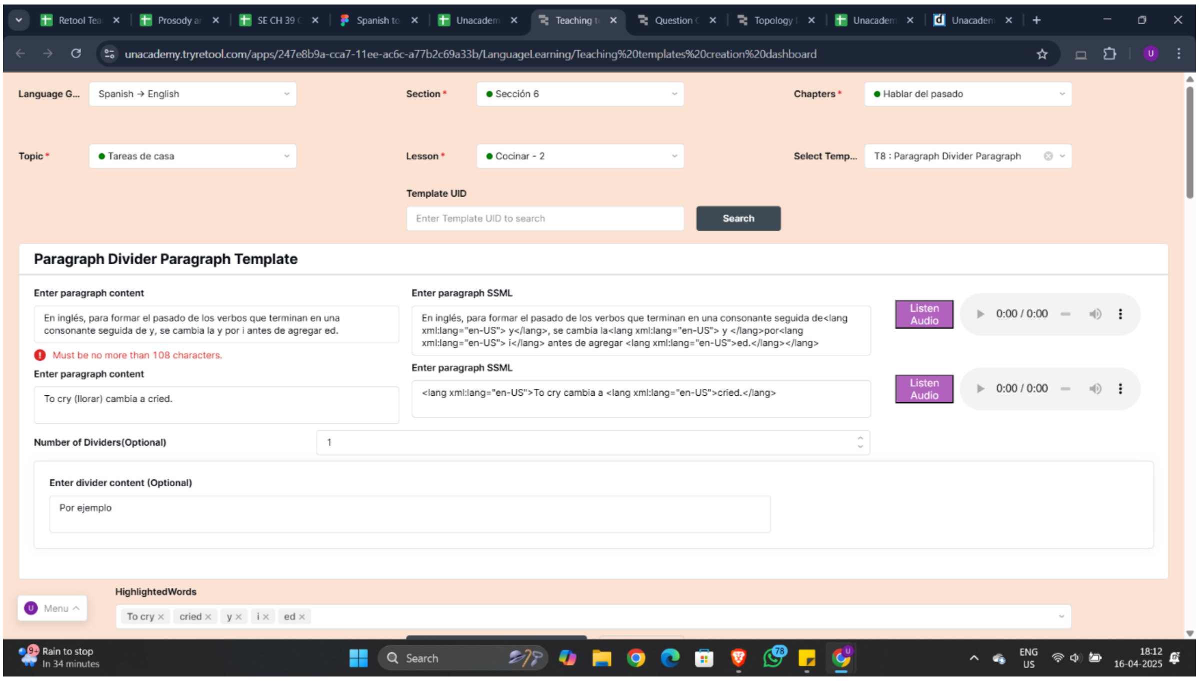
#310 · PL 1
Sharvari 5 minutes ago
Change to:

now - ahora...

#309 · PL 1
Sharvari 6 minutes ago
Spanish and English columns are reversed (check the second comment)

#308 · PL 1
Sharvari 7 minutes ago
Hint: 'We were' significa 'estuvimos' y 'last Sunday' significa 'el domingo pasado'.

Figure 1.6 Creation of Figma Slides


unacademy.tyretool.com/apps/247e8b9a-cca7-11ee-ac6c-a77b2c69a33b/LanguageLearning/Teaching%20templates%20creation%20dashboard

Language G...: Spanish → English

Section *: Sección 6

Chapters *: Hablar del pasado

Topic *: Tareas de casa

Lesson *: Cocinar - 2

Select Temp...: T8 : Paragraph Divider Paragraph

Template UID: Enter Template UID to search

Search

Paragraph Divider Paragraph Template

Enter paragraph content

En inglés, para formar el pasado de los verbos que terminan en una consonante seguida de y, se cambia la y por i antes de agregar ed.

Must be no more than 108 characters.

Enter paragraph SSML

```
En inglés, para formar el pasado de los verbos que terminan en una consonante seguida de<lang xml:lang="en-US"> y</lang>, se cambia la<lang xml:lang="en-US"> y </lang>por<lang xml:lang="en-US"> i</lang> antes de agregar <lang xml:lang="en-US">ed.</lang></lang>
```

Enter paragraph content

To cry (llorar) cambia a cried.

Enter paragraph SSML

```
<lang xml:lang="en-US">To cry cambia a <lang xml:lang="en-US">cried.</lang>
```

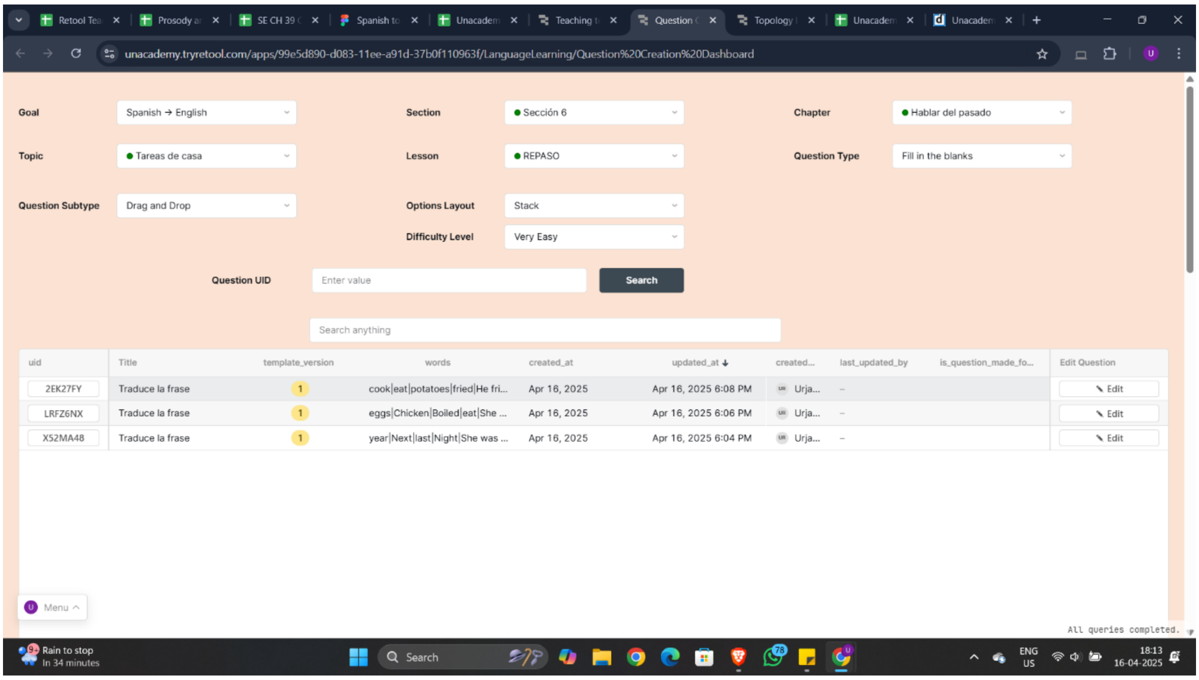
Number of Dividers(Optional): 1

Enter divider content (Optional)

Por ejemplo

HighlightedWords: To cry × cried × y × i × ed ×

Figure 1.7 Content Slides



unacademy.tryretool.com/apps/99e5d890-d083-11ee-a91d-37b0f110963f/LanguageLearning/Question%20Creation%20Dashboard

Goal: Spanish → English

Section: ● Sección 6

Chapter: ● Hablar del pasado

Topic: ● Tareas de casa

Lesson: ● REPASO

Question Type: Fill in the blanks

Question Subtype: Drag and Drop

Options Layout: Stack

Difficulty Level: Very Easy

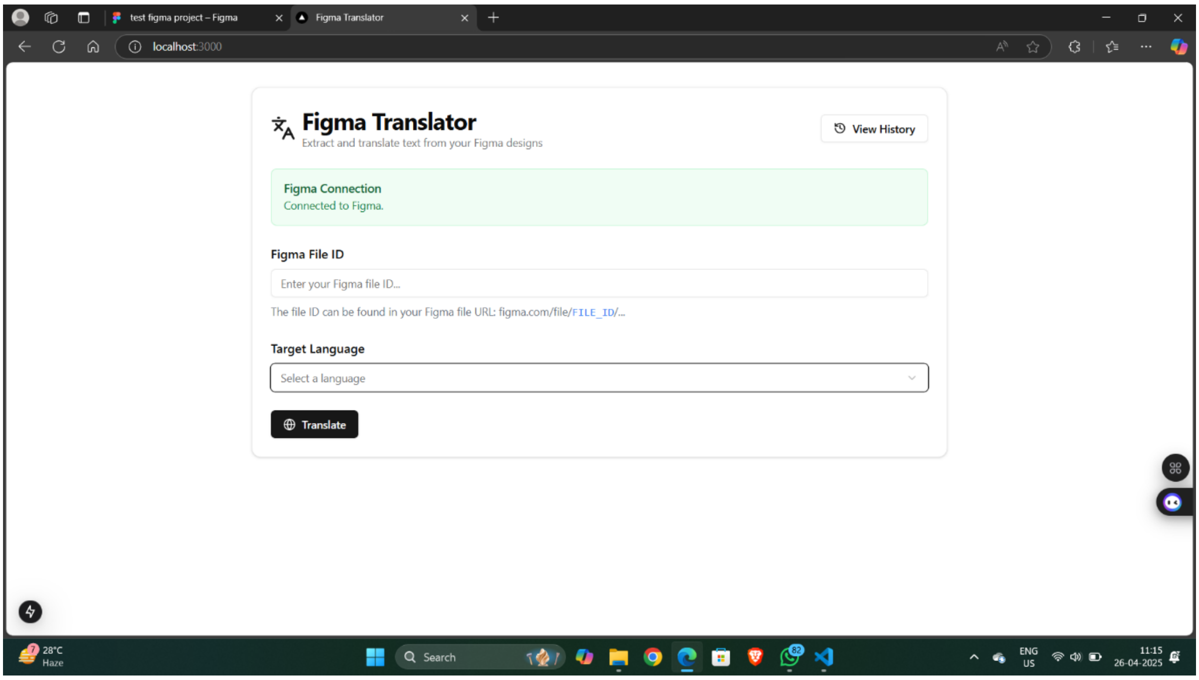
Question UID: Enter value

Search anything

uid	Title	template_version	words	created_at	updated_at	created...	last_updated_by	is_question_made_fo...	Edit Question
2EK27FY	Traduce la frase	1	cook|eat|potatoes|fried|He fri...	Apr 16, 2025	Apr 16, 2025 6:08 PM	Urja...	–		Edit
LRFZ6NX	Traduce la frase	1	eggs|Chicken|Boiled|eat|She ...	Apr 16, 2025	Apr 16, 2025 6:06 PM	Urja...	–		Edit
X52MA48	Traduce la frase	1	year|Next|last|Night|She was ...	Apr 16, 2025	Apr 16, 2025 6:04 PM	Urja...	–		Edit

All queries completed.

Figure 1.8 Database Updating



localhost:3000

Figma Translator

Extract and translate text from your Figma designs

View History

Figma Connection
Connected to Figma.

Figma File ID

Enter your Figma file ID...

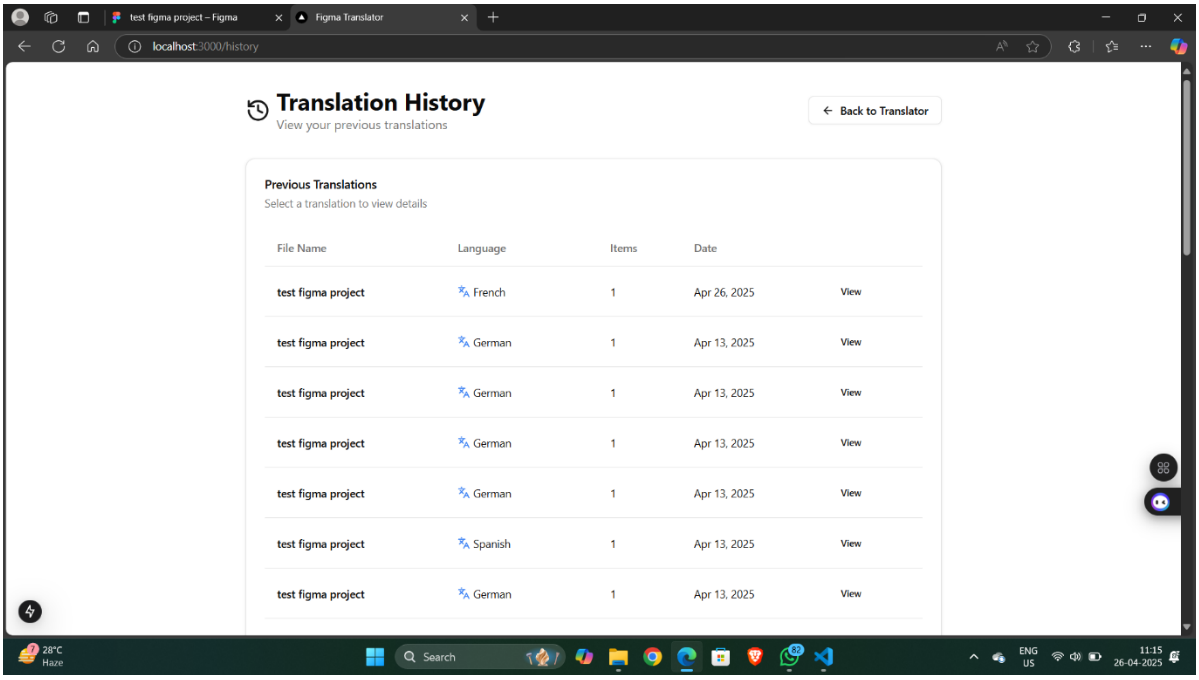
The file ID can be found in your Figma file URL: figma.com/file/FILE_ID/...

Target Language

Select a language

Translate

Figure 1.9 Figma Slide Translator



Translation History

View your previous translations

Previous Translations

Select a translation to view details

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test figma project	French	1	Apr 26, 2025	View
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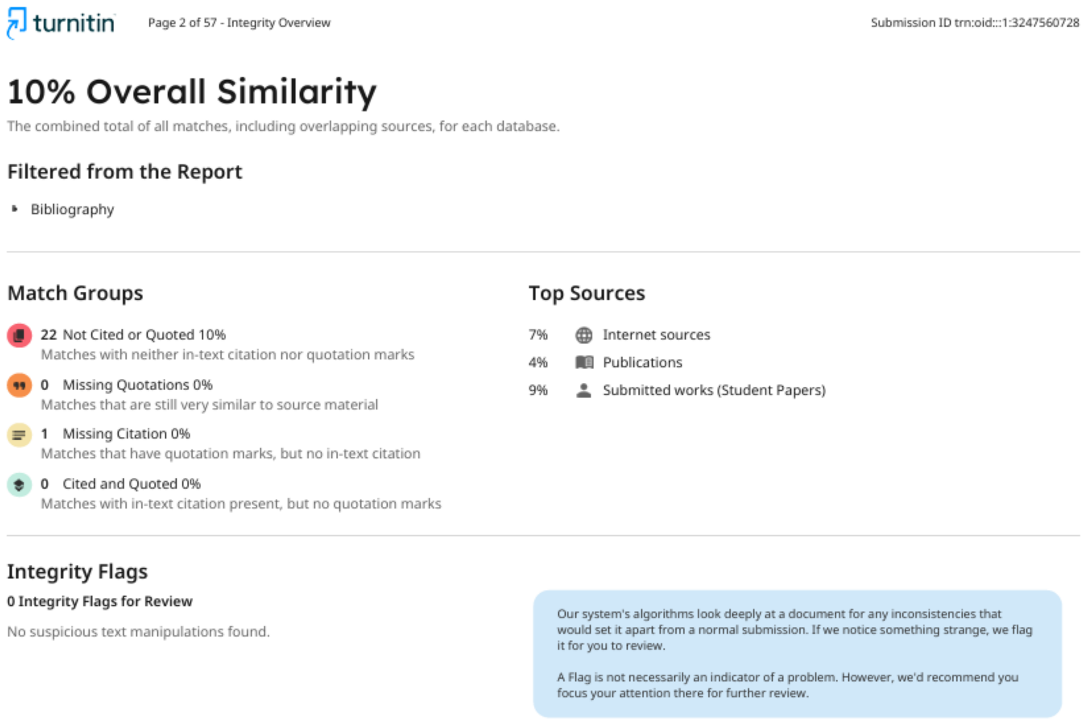
test figma project	German	1	Apr 13, 2025	View
test figma project	German	1	Apr 13, 2025	View
test figma project	Spanish	1	Apr 13, 2025	View
test figma project	German	1	Apr 13, 2025	View

Figure 2.0 Translation History

APPENDIX-C

ENCLOSURES

1. Similarity Index / Plagiarism Check report clearly showing the Percentage (%). No need for a page-wise explanation.



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10% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

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- Bibliography

Match Groups

22 Not Cited or Quoted 10%
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Top Sources

7%	Internet sources
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Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

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A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

2. Details of mapping the project with the Sustainable Development Goals (SDGs).

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Figure 2.1 Software Development Goals

The internship aligns with the following Sustainable Development Goals:

SDG 4: Quality Education

Multilingual content delivery for inclusive learning.

SDG 9: Industry, Innovation, and Infrastructure

API integration and automation in EdTech systems.

Development of smart, scalable educational technology solutions.

SDG 10: Reduced Inequalities

Ensuring equal access through multilingual support for diverse learners.

SDG 17: Partnerships for the Goals

Leveraging global tech tools and fostering cross-team collaboration to achieve project goals.