



PROJECT SCOPE

Multi-Language Translation System for Exam Point of View

1. Project Overview

The existing system includes:

-  Mobile Application (Student App)
 - View papers
 - Chapters
 - Questions & answers
 - Course-based access
-  Admin Web Application
 - Content management
 - Course management
 - User management

New Requirement

Implement a **multi-language translation framework** that allows:

- Users to switch language in mobile app
- App localization (Questions, papers, chapters)
- Admin-driven translation management
- Multi-level translation validation
- Scalable architecture for 2 lakh+ questions
- Supported languages: Hindi, English, Telugu, Kannada, Tamil

2. Functional Requirements

2.1 Mobile App – Language Switching

Features:

1. Language Selector (Profile / home page)
2. On switching language:
 - a. Papers, chapters, questions load in selected language
3. If selected language not verified:
 - a. Fallback to default language (English)
4. Store selected language:
 - a. Device storage
5. Default language auto-load on login after that load from session

2.2 Content to Be Translated

- Papers
- Chapters
- Questions
- Answers
- Explanations

3. Translation Workflow

Phase 1: Initial AI Translation

1. Extract all base English content
2. Use ChatGPT API to:
 - a. Translate into target languages
 - b. Maintain formatting (HTML, LaTeX if applicable)
3. Store as "Draft" translations

Phase 2: Human Verification

- Create language-specific translator accounts
- Each translator:
 - Has access to specific language(s)
 - Sees base English on left
 - Sees editable translation box on right
 - Can mark translation as:
 - Draft
 - Submitted
 - Verified
 - Rejected

Only "Verified" translations will appear in frontend.

4. Admin Web Application – New Modules

4.1 Language Management Module

Admin can:

- Add new language
- Enable / disable language
- Set language code (e.g. hi, mr, ta)
- Set default language
- Control frontend visibility

4.2 Translator User Management

- Create translator users
- Assign:
 - Language access
 - Content scope (course-based optional)

- Role-based permissions:
 - Translator
 - Reviewer
 - Language Admin

4.3 Translation Dashboard

Filters:

- Language
- Course
- Chapter
- Paper
- Status (Draft / Verified / Missing)

Metrics:

- Total questions
- Translated
- Verified
- Pending
- Completion %

4.4 Translation Interface (User Friendly)

Two-column layout:

Base English	Target Language
Question text	Editable textbox
Answer	Editable textbox
Explanation	Editable textbox

Features:

- Rich text editor
- Save draft

- Auto-save
- Compare version history
- Highlight missing translations
- Bulk approve option

Estimated Hours:

Mobile App Changes: 40 Hrs

Web App and server Changes: 245 Hrs

Total: 285 Hrs

Supported Languages: Hindi, English, Telugu, Kannada, Tamil