



SelmApp Phase 4 Completion Report

Listening and Speaking Modules Implementation

✓ Phase 4 - 100% Complete

Report Date: October 16, 2025

Version: 2.0.0 - Production Ready



Executive Summary

Phase 4 has been successfully completed, delivering comprehensive listening and speaking modules that transform SelmApp into a complete language learning ecosystem. The implementation leverages AI-generated content and advanced text-to-speech technology to provide immersive listening experiences and interactive speaking practice across all CEFR levels.



Phase 4 Deliverables Status

Component	Status	Completion
Listening Modules	✓ Complete	100%
Speaking Modules	✓ Complete	100%
TTS Integration	✓ Complete	100%



Key Achievements

- ✓ **AI-Generated Audio Content** with Gemini TTS for immersive listening
- ✓ **Adaptive Difficulty** based on user performance and preferences
- ✓ **Cross-platform Audio** (Android, iOS, Web)



Listening Modules Implementation



Core Features

AI-Generated Audio Content

- ✓ **Dynamic Audio Generation** using AI
- ✓ **Story-Based Content** with narrative audio experiences
- ✓ **News and Article Reading** with professional voice narration
- ✓ **Vocabulary Pronunciation** with clear audio examples

Interactive Listening Experience

- ✓ **Playback Controls** with speed adjustment and pause/resume
- ✓ **Comprehension Questions** with feedback
- ✓ **Transcript Display**



Speaking Modules Implementation



Core Features

Interactive Speaking Practice

- ✓ **Pronunciation Training** with feedback
- ✓ **Fluency Development** with paced speaking exercises
- ✓ **Confidence Building** through progressive difficulty levels

Speaking Exercise Types

- ✓ **Word Pronunciation** with individual sound practice
- ✓ **Sentence Reading** with rhythm and intonation focus
- ✓ **Dialogue Practice** with role-playing scenarios
- ✓ **Presentation Practice** with structured speaking tasks



Recording and Feedback System

Audio Recording Features

- ✓ **High-Quality Recording**
- ✓ **Recording Playback** for self-assessment and improvement
- ✓ **Session Management** with save, replay, and progress tracking

AI-Powered Feedback

- ✓ **Grammar Detection** in spoken responses



AI Integration for Audio Learning

Gemini TTS Integration

Text-to-Speech Capabilities

- ✓ **High-Quality Voices** with natural-sounding speech synthesis
- ✓ **Real-time Generation** for dynamic content creation

Content Generation Features

- ✓ **Scenario-Based Stories** with engaging narratives
- ✓ **Topic-Specific Content** aligned with user interests
- ✓ **Difficulty Adaptation** based on user CEFR level

Audio Content Ecosystem

Comprehensive Audio Library

- ✓ **Vocabulary Pronunciation** for all CEFR word lists
- ✓ **Grammar Examples** with contextual audio demonstrations
- ✓ **Reading Passage Narration** for comprehension practice
- ✓ **Interactive Dialogues** with multiple character voices
- ✓ **Assessment Audio** for listening comprehension tests

Smart Audio Features

- ✓ **Offline Caching** for uninterrupted learning
- ✓ **Bandwidth Optimization** with adaptive audio quality
- ✓ **Background Playback** for multitasking learning

User Experience Enhancements

Listening Interface

Intuitive Audio Controls

- ✓ **Play/Pause/Stop** with one-tap accessibility
- ✓ **Progress Scrubbing** for easy navigation
- ✓ **Volume Control** with system integration

Visual Learning Aids

- ✓ **Transcript** audio playback
- ✓ **Progress Indicators** for lesson completion tracking

Speaking Interface

Recording Experience

- ✓ **One-Tap Recording** with instant start/stop functionality

- ✓ **Visual Feedback** with recording indicators
- ✓ **Recording Timer** with automatic session management
- ✓ **Session History** for progress review and comparison

Feedback and Assessment

- ✓ **Immediate Results** with scoring
- ✓ **Progress Visualization** showing skill development over time



Conclusion

Phase 4 has been completed successfully, establishing SelmApp as a comprehensive audio-visual language learning platform. The implementation delivers:

- ✓ **Immersive Listening Experience** with AI-generated audio content
- ✓ **Advanced Speaking Practice** with feedback and confidence building
- ✓ **Gemini TTS Integration** providing high-quality, natural-sounding audio across all platforms
- ✓ **Personalized Audio Learning** adapting to individual user needs and preferences

Project Manager: SelmApp Development Team

Status: ✓ **Phase 4 - Complete and Production Ready**

Contact Information

For technical inquiries or deployment assistance, please contact the development team or refer to the comprehensive documentation in the project repository.