



ENGLISH. PRONUNCIATION. IMPROVEMENT. COACH

AI 토익 스피킹 모의 테스트

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01

프로젝트 개요 - AI 토익 스피킹 모의 테스트



ENGLISH. PRONUNCIATION. IMPROVEMENT. COACH

- TOEIC Speaking을 실제 시험처럼 연습할 수 있는 웹 서비스
- AI를 이용해 사용자의 발음을 평가하고, 피드백을 제공

01

프로젝트 개요 - 개발 동기

토익 스피킹 응시료(2025년 기준) : 84,000원

TOEIC® Speaking 응시료 인상 안내

(7월 2일 토요일 TOEIC Speaking 정기시험부터 적용)

TOEIC® Speaking, Writing 응시료 인상

TOEIC Speaking, Writing 정기시험 응시료가 2022년 7월 2일(토) 정기시험부터 현행 77,000원에서 84,000원으로 인상됩니다. (부가세 10% 포함 금액)
2012년 이후 10년간 동일하게 적용되어 온 TOEIC Speaking, Writing 응시료를 그 동안의 물가 상승과 지속적인 시험 관련 제반 비용의 증가로 인해 부득이 인상하게 되었습니다. 수험자 여러분의 많은 양해 부탁 드립니다.

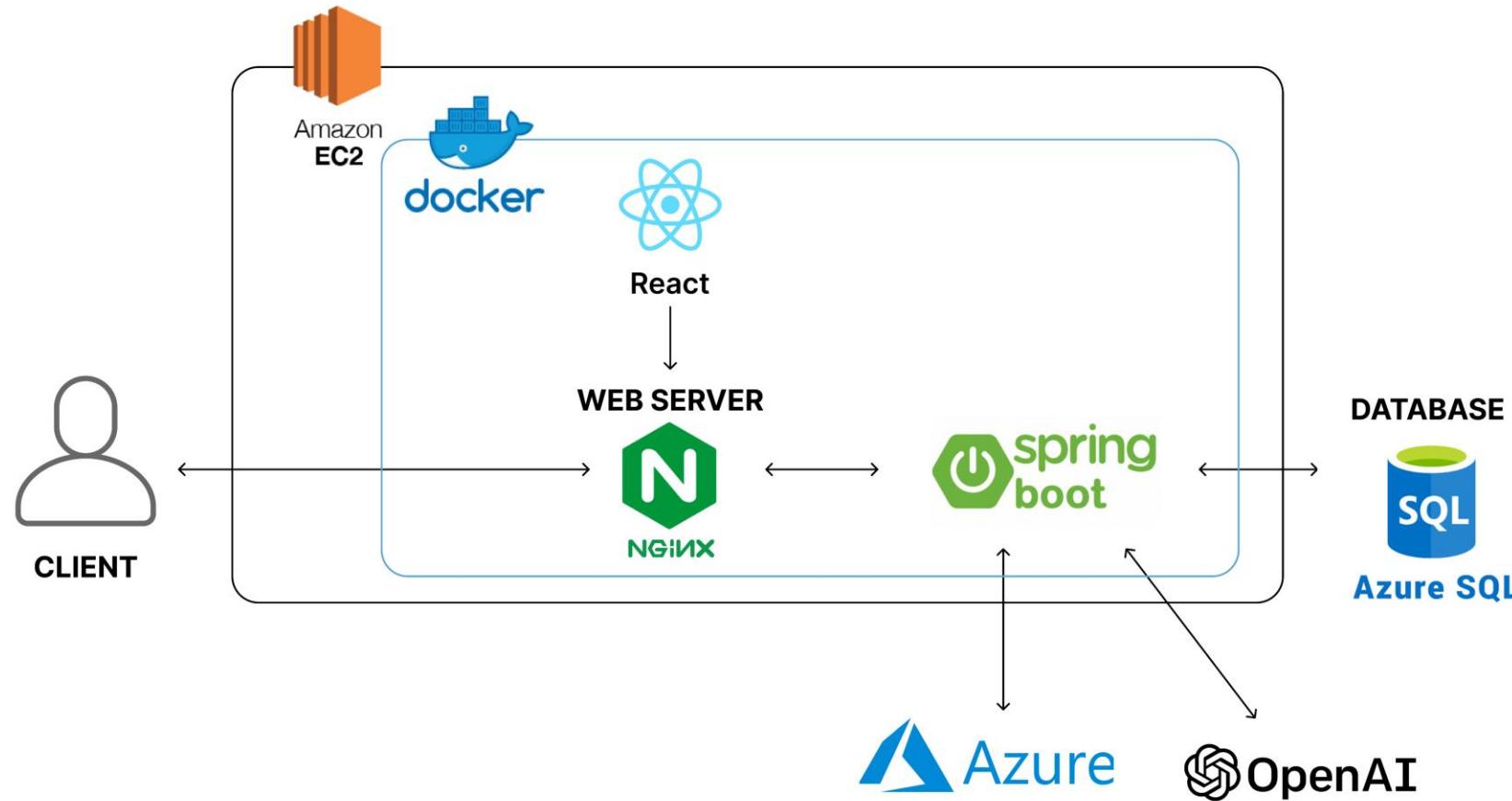


학원비용(10일): 162,000~225,000

	과정	캠퍼스	강의시간	전용스터디공간	스터디 <small>?</small>	iBT 시험	응시료 지원	수강료
○	10일 (입문)	강남역캠퍼스	월~금[전반](10회), 10:00~11:30	제공	수업후 스터디필수	오프라인 2025-06-13 16:00	미지원	250,000원 225,000원 (10%)
○	10일 (입문)	강남역캠퍼스	월~금[전반](10회), 10:00~11:30	제공	수업후 스터디필수	해당없음	미지원	220,000원 198,000원 (10%)
○	10일 (입문)	강남역캠퍼스	월~금[전반](10회), 10:00~11:30	미제공	스터디권장	오프라인 2025-06-13 16:00	미지원	210,000원 189,000원 (10%)
○	10일 (입문)	강남역캠퍼스	월~금[전반](10회), 10:00~11:30	미제공	스터디권장	해당없음	미지원	180,000원 162,000원 (10%)

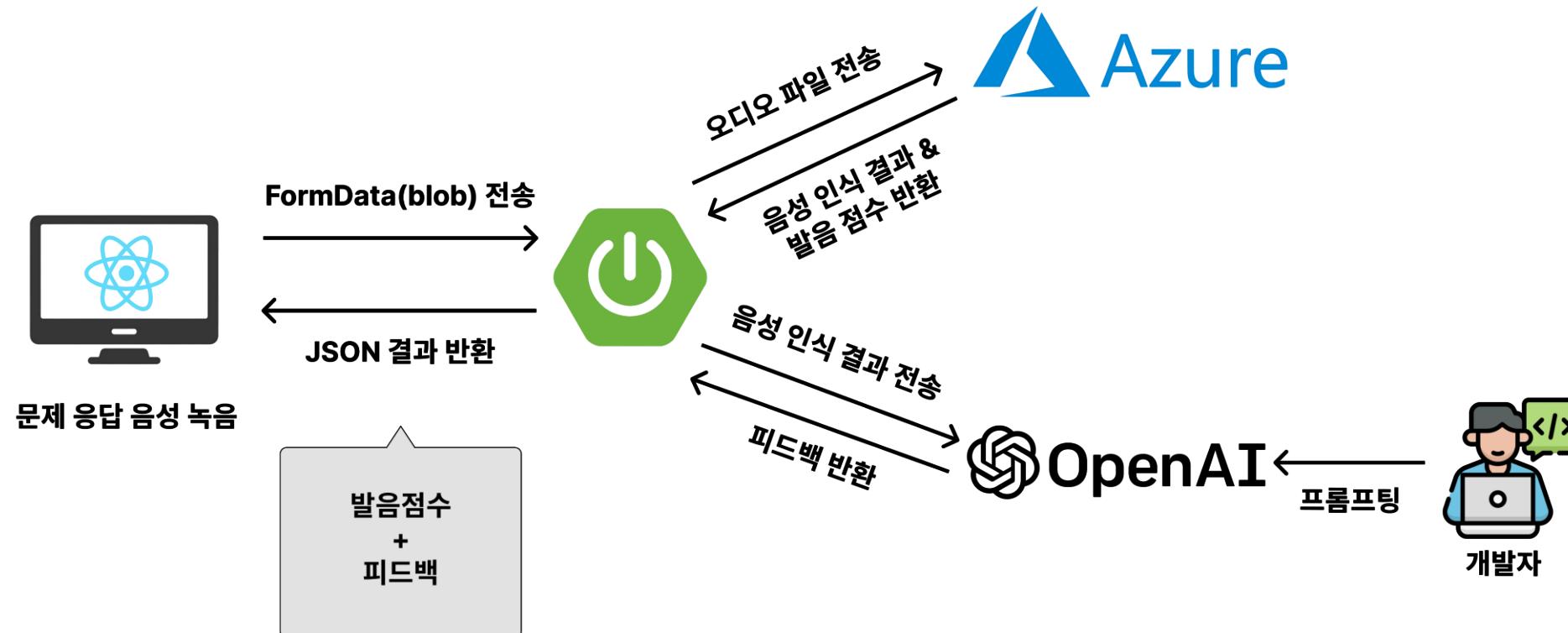
03

핵심 기술 - 시스템 아키텍처

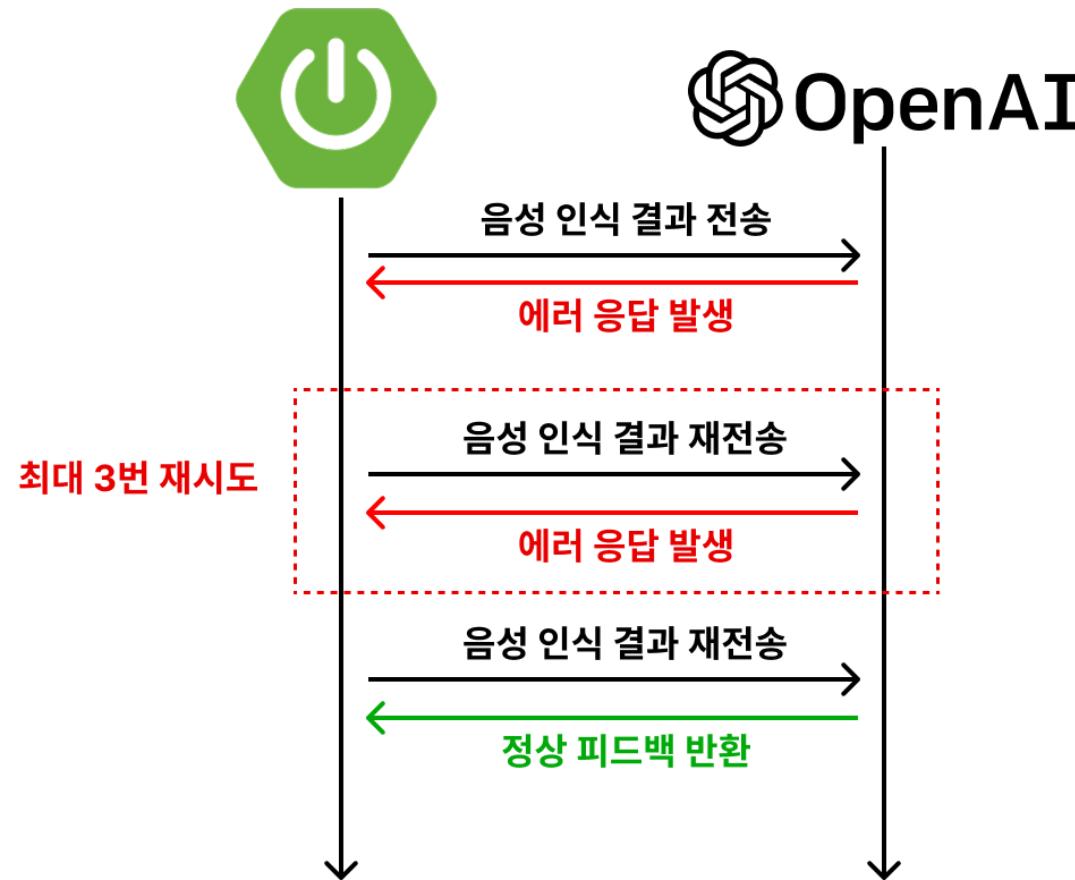


03

핵심 기술 - 주요 흐름

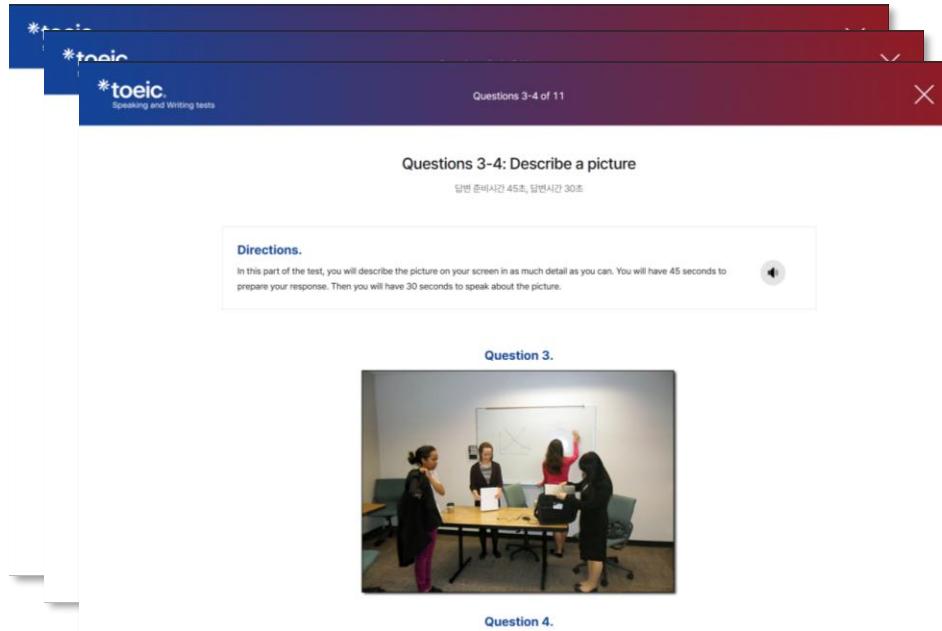


Error Case



03

핵심 기술 - 문제 생성



Sample Question

WITH  OpenAI

03

핵심 기술 - 모의고사 평가 로직



발음 점수

- 정확도 점수
- 유창성 점수
- 운율 점수

100%

잘못 발음한 단어 개수
만큼 감점

파트1 점수
(0~100 scale)



컨텐츠 점수

- 어휘 점수
- 문법 점수
- 점수

60%

기준 발화 길이보다
작거나 크면 감점

+

최종 모의고사 점수
(0~200 scale)

파트2~5 점수
(0~100 scale)

수십차례의 반복 테스트를 통한 점수 산출 방식 검증

The image displays a 5x4 grid of 20 screenshots from a digital assessment platform, likely EPIE, illustrating the results of repeated tests. Each screenshot shows a different question type and preparation time.

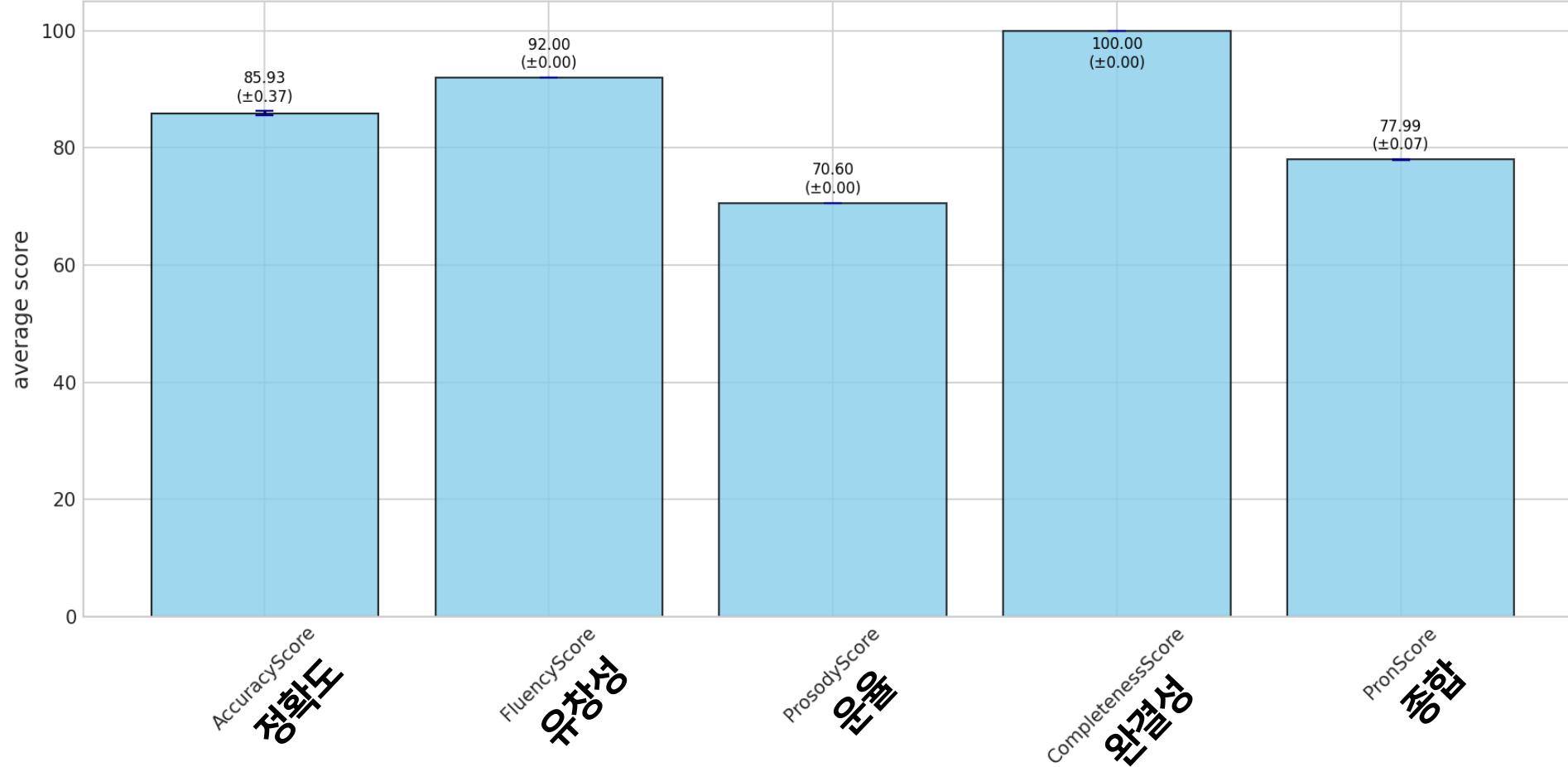
- Row 1:**
 - Question 2 of 1: "This is City News at Noon. Our top story today, the mayor has announced a new plan to improve public transportation. The proposal includes more buses, better schedules, and expanded subway service. Full details will be shared at the press conference this afternoon." Preparation Time: 00:01
 - Question 1 of 1: "Welcome to the Green Fitness Center. Please be aware that the swimming pool will be closed for maintenance this Thursday and Friday. All other facilities will remain open during normal hours. Thank you for your cooperation." Preparation Time: 00:01
 - Question 2 of 1: "This is City News at Noon. Our top story today, the mayor has announced a new plan to improve public transportation. The proposal includes more buses, better schedules, and expanded subway service. Full details will be shared at the press conference this afternoon." Preparation Time: 00:01
 - Question 2 of 1: "Are you ready to upgrade your ride? Come to Speed Motors this weekend for our special summer sale. All used vehicles are fully inspected and come with a one-year warranty. Don't miss out on these incredible deals." Preparation Time: 00:01
 - Question 2 of 4: "Offer valid: June 1st - June 30th. The offer applies to all vehicles in stock. Price excludes taxes, license fees, and insurance. Payment plan available. Call now for details." Preparation Time: 00:01
- Row 2:**
 - Question 1 of 5: "Do you agree or disagree with the following statement? High school students should be required to wear school uniforms. Give reasons or examples to support your opinion." Preparation Time: 00:01
 - Question 1 of 2: "A photograph of a grand building with many columns and people walking in front of it." Preparation Time: 00:01
 - Question 1 of 4: "Systems Requirements: Storage: 100 GB RAM: 8 GB Processor: Intel i5 CPU: 2.4 GHz OS: Windows 10. Question 6: How many (2GB) drives were bought, and what is the unit price?" Preparation Time: 00:01
 - Question 1 of 1: "You're watching Travel Time. In this segment, we'll take you through the mountain trails of northern Italy. From scenic views to local cuisine, this hidden gem has something for everyone. Don't go away; we'll be right back after the break." Preparation Time: 00:01
 - Question 1 of 1: "Drawing something sweet? Stop by Cookies Garden and try our freshly baked chocolate chip cookies. We use only natural ingredients and no preservatives. This week, get a free drink with any purchase of six cookies or more." Preparation Time: 00:01
- Row 3:**
 - Question 1 of 2: "A photograph of a person sitting on a sofa in a living room." Preparation Time: 00:01
 - Question 1 of 1: "Technology magazine is conducting a phone interview about Internet usage." Preparation Time: 00:01
 - Question 1 of 4: "Systems Requirements: Storage: 100 GB RAM: 8 GB Processor: Intel i5 CPU: 2.4 GHz OS: Windows 10. Question 6: On November 12, where is the manufacturing facility located, and what time does it start?" Preparation Time: 00:01
 - Question 2 of 2: "A photograph of two people working at a computer in an office setting." Preparation Time: 00:01
 - Question 1 of 2: "A photograph of a person giving a presentation to a group of people in a conference room." Preparation Time: 00:01
- Row 4:**
 - Question 1 of 1: "Welcome to the City Art Museum. We are pleased to present our new exhibit featuring modern Korean painters. The exhibition will be open through the end of July and includes over 50 original works. Guided tours are available every hour on the hour." Preparation Time: 00:12
 - Question 1 of 5: "Do you agree or disagree with the following statement? High school students should be required to wear school uniforms. Give reasons or examples to support your opinion." Preparation Time: 00:01
 - Question 1 of 4: "Systems Requirements: Storage: 100 GB RAM: 8 GB Processor: Intel i5 CPU: 2.4 GHz OS: Windows 10. Question 6: Who is going the Cybersecurity lecture, and at what time?" Preparation Time: 00:01
 - Question 2 of 2: "A photograph of two people in a grocery store aisle." Preparation Time: 00:01
 - Question 1 of 1: "Drawing something sweet? Stop by Cookies Garden and try our freshly baked chocolate chip cookies. We use only natural ingredients and no preservatives. This week, get a free drink with any purchase of six cookies or more." Preparation Time: 00:01

03

핵심 기술 - 신뢰도



Pronunciation Assessment

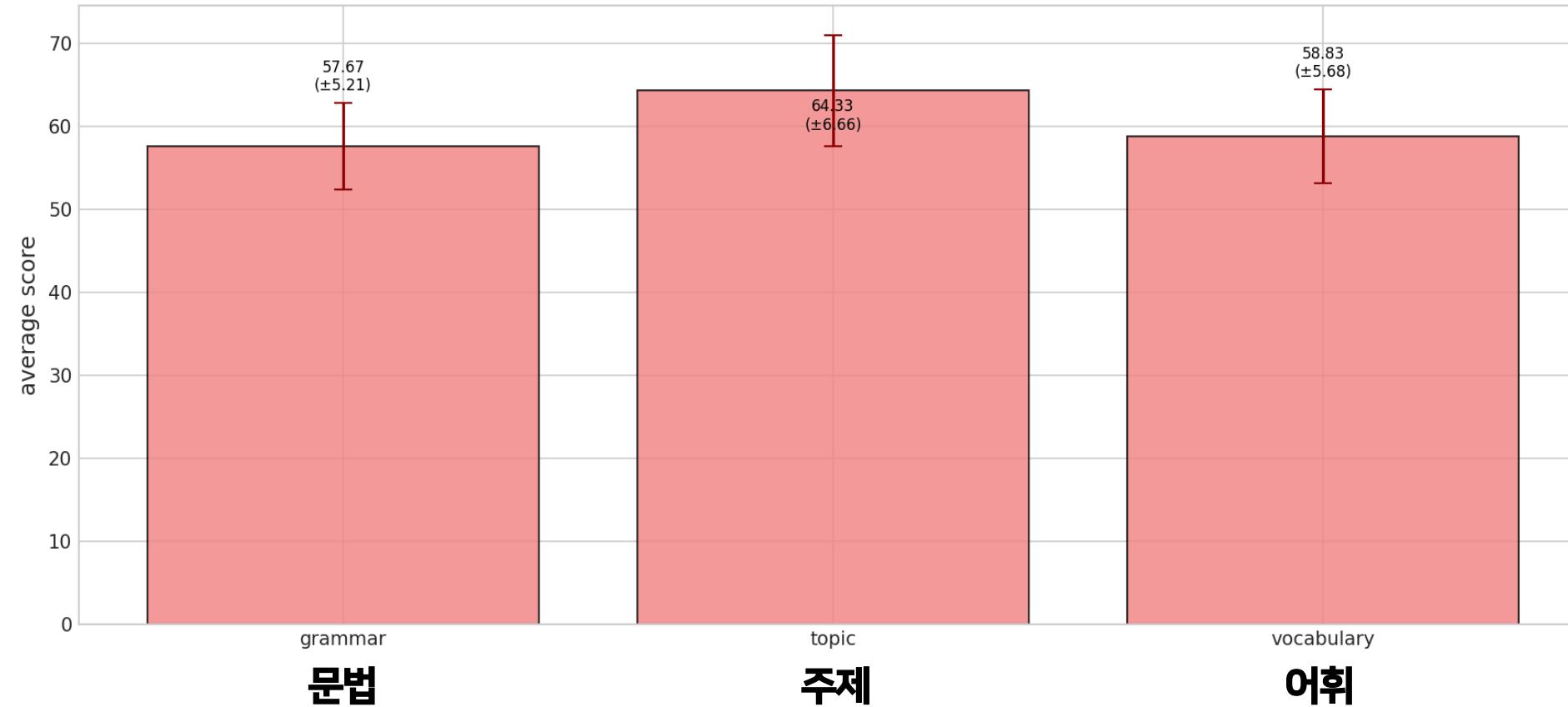


03

핵심 기술 - 신뢰도



GPT Evaluation



시연

① 음성 평가 비용

- 총 녹음 시간: 약 6분 ÷ 0.1시간
- 단가: \$1.00 / 시간
 $= 0.1 \times \$1.00 = \0.10

② GPT 평가 비용

- 각 문항 GPT 평가에 사용되는 토큰 수
 - Part1: 800 tokens
 - Part2: 1,200 tokens
 - Part3: 1,500 tokens
 - Part4: 1,800 tokens
 - Part5: 500 tokens
- **총 약 5,800 tokens**
- 단가: \$0.02 / 1,000 tokens
 $= 5,800 / 1,000 \times \$0.02 = \0.116

③ GPT Vision 비용

- 이미지 기반 문항
 - Part2 (2문항)
 - Part4 (3문항)
- 추정 단가: \$0.01 / 이미지 1장
 $= 5 \times \$0.01 = \0.05

04

기대효과 - 개발 동기

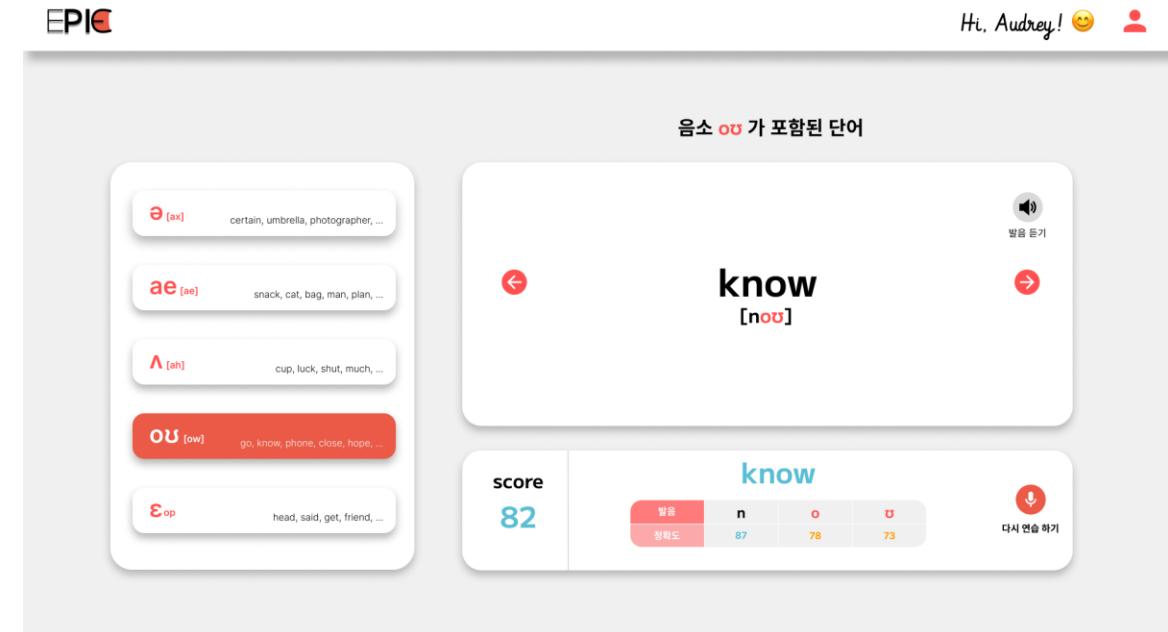
모의고사 1회 당 비용 = [Azure 비용] + [OpenAI 비용] = 원화 기준 약 **364.79원**(₩1,350/USD)

항목	세부 항목	비용 (USD)
 Azure	음성 평가	\$0.10
 OpenAI	GPT 평가 (텍스트)	\$0.116
	GPT Vision 분석 (이미지)	\$0.05
합계		\$0.266

향후 계획 및 발전 가능성 - 맞춤형 단어장



DB 설계



시안

향후 계획 및 발전 가능성

1. 자체 음성 인식 모델 도입

1. Azure Speech Studio 의존 탈피
2. 자체 학습된 모델로 정확도 향상 및 커스터마이징 가능

2. 채점 알고리즘 고도화

1. 실제 사용자 응답 데이터를 축적 및 분석
2. 평가 기준 및 점수 산정 로직 개선

3. OPIc 지원

1. TOEIC Speaking뿐만 아니라 OPIc 대비도 가능하도록 서비스 확장

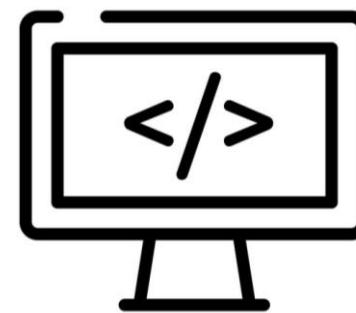
Thank You



Front end

현승곤

강태훈



Back end

이동규

박지호