# **ASR Final Project**

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#### Final project!

- Objective: Improve ASR Performance
  - Input Audio:
    - Multi-channel audio data (e.g., 4-channel)
    - Each audio contains one of the following **noise conditions**:
      - 1) Café noise + reverberation
      - 2) Gaussian noise + reverberation
      - 3) Various sound events (e.g., guitar, bass, dog barking) + reverberation
    - Each version consists of 100 samples for both development and test sets.
    - The development dataset will be released publicly.

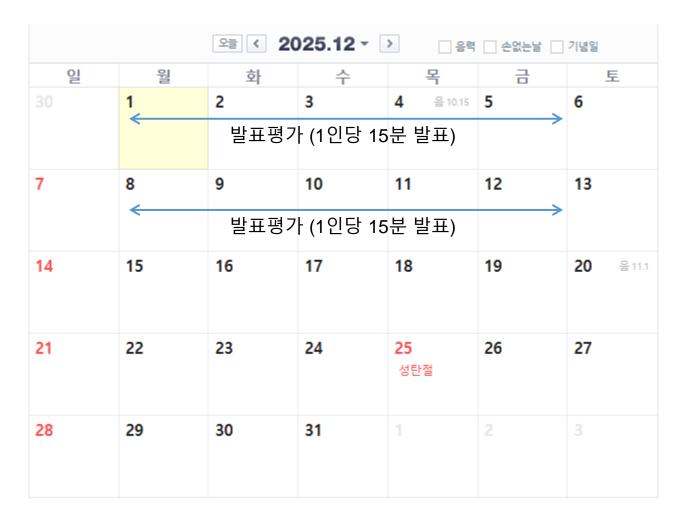
#### • Task:

- Compute the Word Error Rate (WER) using any ASR model of your choice.
- You may apply speech enhancement, noise reduction, or multi-channel audio processing methods as preprocessing to reduce noise.
- Different preprocessing methods may be used for each audio version ((1), (2), (3)), but the same ASR model must be used across all versions.

### Final project! - 평가

- Evaluation Criteria (40%)
  - 성능 20%:
    - ASR performance (WER) on the test set
    - Improvement in WER after applying preprocessing compared to using the ASR model alone
  - 발표 20%:
    - Originality and effectiveness of the preprocessing method
    - 학생들의 평가 40% + 교수의 평가 60%

## Final project!



#### 성취기반 평가

- 평가
  - 중간고사 (40%)
  - ・ 프로젝트 (40%) 중간고사 이후 공지
  - 과제 (10%)
  - 출석 (5%)
  - 보너스 점수 (5%) 수업참여(질문, 대답)+0.5, 학우를 도와주면+0.5
- 성취기반평가
  - 중간고사: 40점
    - 점수의 분포에 따라 C+~A+까지 구분 (등급 점수 A+: 36, A: 32, B+: 28, B: 24, C+: 20)
    - 자신의 점수: 등급 점수(e.g., A+: 36) +  $\alpha$  ( $\alpha$ 에 대해서는 수업시간에 설명)
  - 프로젝트: 40점
  - 과제: 10점 / 출석: 5점
  - 보너스 점수: 5점
  - A+ (85점 이상), A0 (75점 이상), B+ (65점 이상), B0 (50점 이상), C+ (40점 이상), C- (30점 이상), D+ (20점 이상), F (20점 미만)