LAB NOTES - METRICS

- SI - SDR
    - Measures the distortion between the enhanced and clean signals
    - Ignores difference in volume
    - Higher score = better (closer to clean signal)

1. **NB-PESQ (Narrow-Band Perceptual Evaluation of Speech Quality)**: This is a perceptual metric designed to assess narrow-band speech quality, as perceived by human listeners. It gives a score based on how close the enhanced or processed speech is to the original, unprocessed speech. PESQ is widely used for evaluating the performance of speech enhancement models, especially in noisy environments.
2. **SDR (Signal-to-Distortion Ratio)**: This metric measures how well the enhanced signal represents the original clean signal in terms of distortion. Higher SDR values indicate that the enhanced signal closely resembles the original with minimal distortion, making SDR a popular metric for assessing speech separation and enhancement.
3. **STOI (Short-Time Objective Intelligibility)**: STOI measures speech intelligibility, meaning how well the speech is understood by listeners after processing. It's particularly useful for evaluating models designed to enhance or separate speech in noisy conditions. Higher STOI scores suggest that the enhanced speech is more intelligible.
4. **WB-PESQ (Wide-Band Perceptual Evaluation of Speech Quality)**: This is the wide-band version of PESQ, extending the metric to assess wider bandwidths in audio. Like NB-PESQ, WB-PESQ scores reflect how close the processed speech is to the original, focusing on quality as perceived by listeners.