# Different Data Types

1. Visualizing an audio signal in the time domain usually reveals very little information on its spectral content. Which graphical representation displays the amplitude changes for each frequency as a function of time?

   - Short-Time Fourier Transform.
   - Feature normalization
   - librosa
   - Spectrogram.

2. What would be a striking caveat or shortcoming of interpreting a video just as a series of images?

   - Considering that all subsequent frames are correlated.
   - Unnecessarily increasing the dimensionality of the dataset.
   - Losing the semantic context coming from the sequence of events.
   - Hindering classifier accuracy.

   *Videos are time series as well and thus the ordering of events matter a great deal.*

3. In the analysis of the weather time series data set you saw that the samples were acquired at a rate of 6 samples per hour. You also know that weather changes typically occur on a much slower time scale. What is a valid sampling strategy to make predictions into the future for this specific case?

   - Upsampling by interpolation.
   - Omitting samples.
   - Windowing and omitting samples.
   - Use one sample at a time to make predictions

   *Taking a finite window of data plus downsampling is the way to go for slow time varying signals.*