The following are a few Reference Material Links that will help you get more idea about the topics that are going to be discussed in Session 4.

Image:

- Eigen Face
https://en.wikipedia.org/wiki/Eigenface
http://www.scholarpedia.org/article/Eigenfaces
https://www.youtube.com/watch?v=MRMbZJ1IP6c
https://www.youtube.com/watch?v=q-KAa4Dd-Ts

Text:

- BoW
https://en.wikipedia.org/wiki/Bag-of-words_model
https://machinelearningmastery.com/gentle-introduction-bag-words-model/
https://www.youtube.com/watch?v=OGK9SHt8SWg

- Word2Vec
https://en.wikipedia.org/wiki/Word2vec

Speech:

- MFCC
https://en.wikipedia.org/wiki/Mel-frequency_cepstrum
http://practicalcryptography.com/miscellaneous/machine-learning/guide-mel-frequency-cepstral-coefficients-mfccs/
http://recognize-speech.com/feature-extraction/mfcc

- DNN
https://en.wikipedia.org/wiki/Deep_learning
https://deeplearning4j.org/neuralnet-overview
http://mi.eng.cam.ac.uk/~kmk/presentations/TutorialIC_Sep2015_part1_Knill.pdf