a simple example of how Leave One Subject Out Cross Validation (LOSO-CV) works:

1. Split the dataset into training and testing sets, using all but one observation as part of the training set.
2. Build the model using only data from the training set.
3. Use the model to predict the response value of the one observation left out of the model and calculate the mean squared error (MSE).
4. Repeat the process for each observation in the dataset, leaving out a different observation from the training set each time.
5. Calculate the test MSE to be the average of all of the test MSEs.

a simple example of how \*\*k-fold cross-validation\*\* works:

1. Split the dataset into k equally sized subsets.

2. For each subset, use it as the test set and use the remaining k-1 subsets as the training set.

3. Build the model using only data from the training set.

4. Use the model to predict the response value of the test set and calculate the mean squared error (MSE).

5. Repeat the process for each subset in the dataset.

6. Calculate the test MSE to be the average of all of the test MSEs.

LOSO-CV is particularly useful when there is high variability between individual subjects and recording sessions ¹. It is more effective than traditional k-fold cross-validation techniques in assessing the performance of algorithms in a real-life setting on an unseen subject ¹