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Spring Semester

Pattern Recognition

## Exercise 2d - March 29, 2021 First Team Task (Permutated MNIST)

## Deadline: April 19, 2021 (end of day)

In this exercise, you should apply the MLP (task 2b) and the CNN (task 2c) on the permutated MNIST dataset, which is provided on ILIAS.

## Permutated MNIST

Use the provided training set (permutated MNIST) to train your MLP (from task 2b) and your CNN (from task 2c). Apply the both trained models to classify the test set (permutated MNIST). Compare the results with the results from the normal MNIST (especially the accuracy curves). Is there a difference from before? If yes, why? Try to explain what you observe with your own words and the reason of this happening.

## **Expected Output**

- Access to your github so that we can inspect your code.
- Small report in PDF / README format on the GitHub containing:
  - Accuracy on the permutated MNIST compared with the results on the normal MNIST.
  - Analysis of the results in your own words.