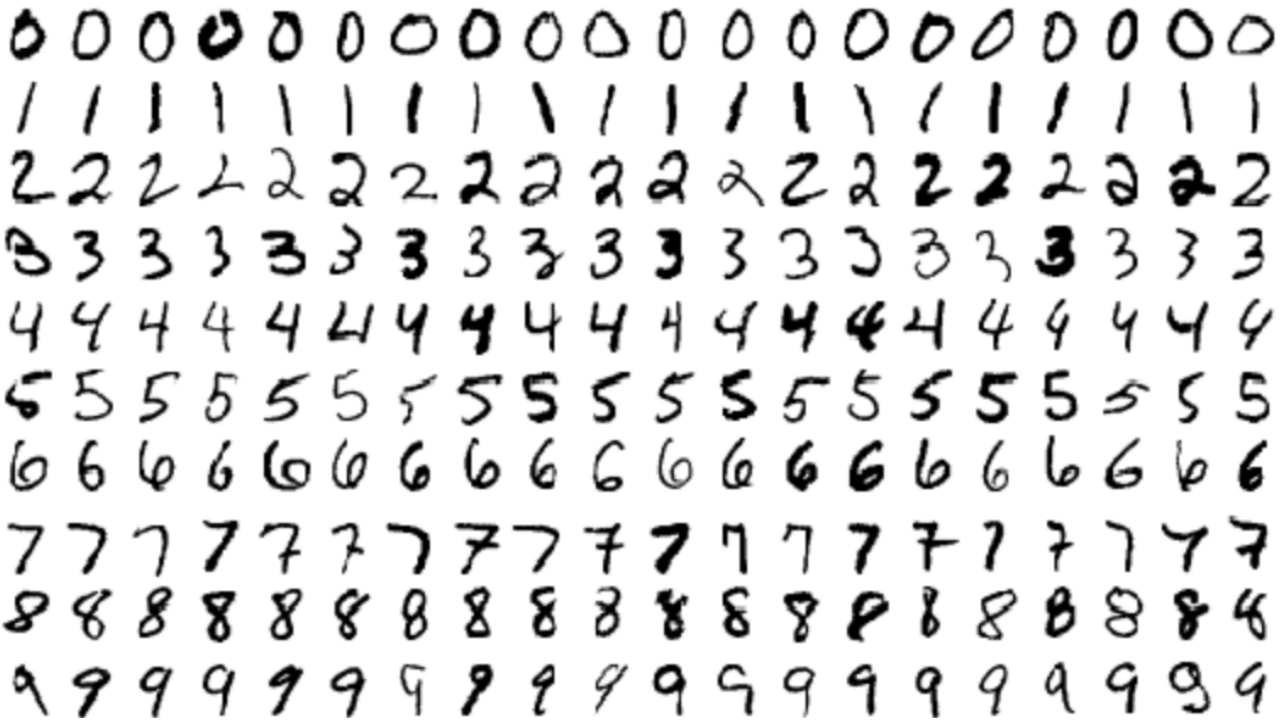
# Single Digit MNIST Challenge

In this challenge, your task is to create a classifier on one of the most common and simplest datasets for computer vision, MNIST:



As you can see above (and probably knew already), MNIST contains handwritten digits (0-9). Classifying these images is an easy task, and it's possible to get an accuracy close to 100%, if you are allowed to use the entire training dataset, but in our challenge, that's not the case.

Your task is to create a classifier, but you are only allowed to use ten annotated images from the training-set (one for each number).

The rest of the annotations in the training dataset should be thrown away. You are allowed to use the official MNIST test dataset to evaluate your algorithm.

# Instructions

1. Download the MNIST dataset
2. Throw away all annotations except one per class
3. Create a test dataset with at least 100 images per class.
4. Build your classifier
5. Make sure that we can run your code on linux

# What we look at

- How you solve the problem is more important than the accuracy of your algorithm.
- **Don't** write comments in your code. It should be clear what happens anyway.
- Focus on the structure of your code.
- Approach the challenge as if you are creating the algorithm for a customer.

# What's next?

Once you completed the challenge, we will take a look at your solution and try to run your code. If everything looks good, the next step is a 30 min session where you get to explain your work and answer our questions.