Part 1:
Mini-project

Mini-project overview

1   What is the task?

2   Time frame?

3   Goals?

The MNIST classification task

The MNIST classification task

Discussion

- What are the features here?
- What models can you train?
- What libraries should you use to train models?

The MNIST classification task

- Task is to train a model to accurately predict which number a handwritten number is.

- 3 days only!

- Done in pairs with similar coding abilities.

- Points for the model with the highest accuracy on **unseen** data. The exact rules require the model to be trained by the user - so using pretrained models like YOLOv10 are not permitted.

Goals

- Work with <mark>**real data**</mark>

- Train a genuinely useful model

- Experience with train, evaluation and testing data (more on this later)

Today
Pandas and Matplotlib

Import statements

In every notebook you will need to import additional packages

```python
import pandas as pd
import matplotlib.pyplot as plt
```

If you have never used them before, you will need to **install** them first

```
!pip install pandas matplotlib

%pip install pandas matplotlib
```

After installation you should **restart** the notebook