**Task 1: Introduction**

* Introduction to the basic image classification problem.
* What is TensorFlow?
* Introduction to the Rhyme interface.

**Task 2: The Dataset**

* Importing the MNIST dataset.
* A quick look at the structure of the dataset.
* A quick look at the MNIST image examples.

**Task 3: One Hot Encoding**

* What is one hot encoding?
* How to encode the labels from the dataset.

**Task 4: Neural Networks**

* Graphical representation of linear equations.
* What are neural networks?
* What are activation functions?

**Task 5: Pre-processing the Examples**

* Unrolling the input features.
* Data normalization with mean and standard deviation.

**Task 6: Creating the Model**

* Creating a sequential model with Keras.
* Model architecture - hidden layers and hidden units.
* Softmax and ReLU activation functions.
* Compiling the model by specifying an optimizer and a loss function.

**Task 7: Training the Model**

* Training the model to fit to training data.
* Evaluating the model on the test data.

**Task 8: Predictions**

* Predictions on the test set.
* Visualizing the predictions.

# **Basic Image Classification**

Now, we will build a neural network model to solve a basic image classification problem. We will accomplish this with the help of following tasks in the project:

* Understand the problem statement
* Understand the dataset
* Encode the labels
* Understand neural networks
* Preprocess image examples
* Create a neural network model
* Train the model to fit the dataset
* Evaluate the model
* Visualize the predictions