

# Introduction to TF for AI — Week 01

 [aakashgoel12.medium.com/introduction-to-tf-for-ai-week-01-ace74d9ae4fc](https://aakashgoel12.medium.com/introduction-to-tf-for-ai-week-01-ace74d9ae4fc)

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**Aakash Goel**

**Jan 26**

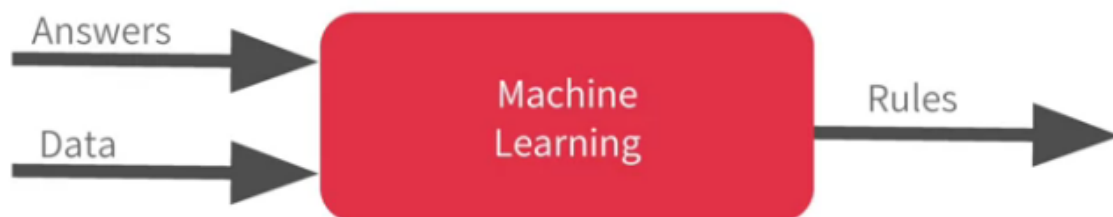
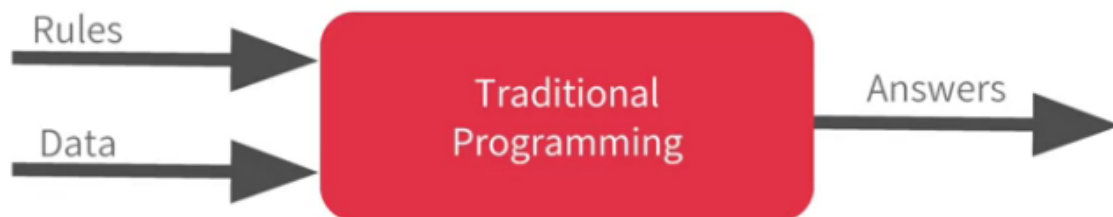


Image 01: Difference in Programming

**Notebook**

<https://colab.research.google.com/github/lmoroney/dlaicourse/blob/master/Course%201%20-%20Part%202%20-%20Lesson%202%20-%20Notebook.ipynb>

## QUIZ


1. The diagram for traditional programming had Rules and Data In, but what came out?

- ☐ Binary
- ☐ Machine Learning
- ☒ Answers
- ☐ Bugs

 **Correct**

2. The diagram for Machine Learning had Answers and Data In, but what came out?

- ☐ Models
- ☒ Rules
- ☐ Bugs
- ☐ Binary

 **Correct**


3. When I tell a computer what the data represents (i.e. this data is for walking, this data is for running), what is that process called? 1 / 1 point

- ☒ Labelling the Data
- ☐ Learning the Data
- ☐ Programming the Data
- ☐ Categorizing the Data

 **Correct**

4. What is a Dense? 1 / 1 point

- ☒ A layer of connected neurons
- ☐ A layer of disconnected neurons
- ☐ A single neuron
- ☐ Mass over Volume

 **Correct**

5. What does a Loss function do?

- ☐ Figures out if you win or lose
- ☐ Decides to stop training a neural network
- ☐ Generates a guess
- ☒ Measures how good the current 'guess' is

 **Correct**

6. What does the optimizer do?

- ☐ Figures out how to efficiently compile your code
- ☐ Measures how good the current guess is
- ☒ Generates a new and improved guess
- ☐ Decides to stop training a neural network

 **Correct**

7. What is Convergence?

- ☐ A programming API for AI
- ☐ A dramatic increase in loss
- ☒ The process of getting very close to the correct answer
- ☐ The bad guys in the next 'Star Wars' movie

✓ Correct

8. What does model.fit do?

- ☐ It makes a model fit available memory
- ☐ It determines if your activity is good for your body
- ☐ It optimizes an existing model
- ☒ It trains the neural network to fit one set of values to another

✓ Correct

## Colab Notebook Link

Seedbank Project

## AI Hub

### AI Hub: The one place for everything AI

[research.google.com](https://aihub.cloud.google.com)

<https://aihub.cloud.google.com/u/o/s?category=notebook>

## Google Colaboratory

### Edit description

[colab.research.google.com](https://colab.research.google.com)

```

: # GRADED FUNCTION: house_model
def house_model(y_new):
    xs = np.array([1.0, 2.0, 3.0, 4.0, 8.0, 10.0], dtype=float)
    ys = np.array([100.0, 150.0, 200.0, 250.0, 450.0, 550.0], dtype=float)
    model = tf.keras.Sequential([keras.layers.Dense(units=1, input_shape=[1])])
    model.compile(optimizer='sgd', loss='mean_squared_error')
    model.fit(xs, ys, epochs=1000)
    return model.predict(y_new)[0]

```

Image — House Price Prediction

## Visualize DL Models

## Tensorflow - Neural Network Playground

It's a technique for building a computer program that learns from data. It is based very loosely on how we think the...

[playground.tensorflow.org](https://playground.tensorflow.org)

Another Course → <https://www.deeplearning.ai/ai-for-everyone/>



- [TensorFlow](#)
- [Housing Prices](#)

## More from Aakash Goel

## More From Medium

## Housing Price Prediction on Steroids

[Federico Riveroll](#) in [Towards Data Science](#)



## Want To Get TensorFlow Certified?

[Patrick Kalkman](#) in [Level Up Coding](#)



## Exploratory Data Analysis of Iowa Housing Price Prediction Problem

[Revathi Suriyadeepan](#) in [Analytics Vidhya](#)



## Deep Learning on Supercomputers

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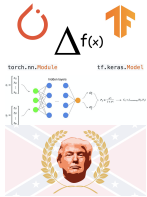
Jordi TORRES.AI in Towards Data Science



## A tale of two frameworks: PyTorch vs. TensorFlow

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Jacopo Mangiavacchi in Data Science at Microsoft



## Gaslighting Phrases You Aren't Paying Attention To

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E.B. Johnson, NLP-MP in LV Development

