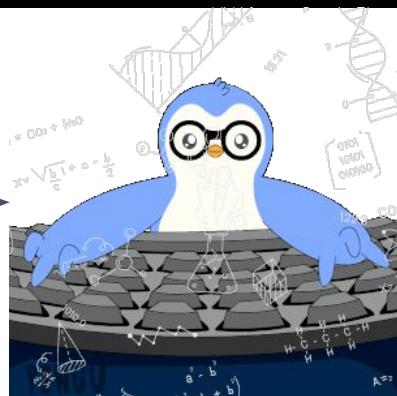


# TECHCRUSH ARTIFICIAL INTELLIGENCE BOOTCAMP

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# Programming



## Recap



### Linear Regression

An introduction to linear regression, covering linear models, loss, gradient descent, and hyperparameter tuning.

# Python

- Interpreted language
- Syntax & Semantic
  - White-Space and Indentation
- Comments
- Variables & Data Types
  - Variable Name
  - Case-Sensitivity
  - Single or Double quotes
  - Data-mismatch
  - Scope (Global & Local)
- Array-like
  - Strings
  - Lists
  - Tuples
  - sets
  - Dictionaries
- Operator
- Condition
- Loops
- Functions
- Importing and Installing libraries

[Visualize Python Execution](#)

[W3School - Python](#)

# Python - Notebook

## Notebook commands

- ! - shell commands
  - !pip install pandas
- % - Line magics
  - %pip install pandas
- %% - Cell magics
  - %%html
  - <h1>Hello TechCrush AI</h1>

## ● Installing Packages: Using PIP

- pip install numpy
- pip install pandas
- pip install -U scikit-learn
- pip install matplotlib

## ● Importing Packages

- import math
- import pandas as pd
- from matplotlib import pyplot as plt
- from sklearn.linear\_model import LinearRegression

## Python - Notebook

# Linear regression: Programming exercise

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