Notes for Future Course Presenters

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## Day 1 Intro to Python

### Learning Objective:

There are two main goals for this day.

1. To get the students thinking about “Digital” Transformation of their companies
2. To get them excited about Python

Twitter-Bot Detection Use Case. (The whole class participates)

Why did we choose Python?

Facebook Graph “Reverse Engineering”

### Exercise for day 1

* Student is given a piece of text
* Learns to manipulate the text using different python techniques…

# Day 2 More About Python

### Learning Objective:

Exercise for Day 2

* Visualization based exercises.
* The student learns to plot in many different ways.
* Manipulating the plot for aesthetics and to convey the insights

## Day 3 – Big Data

### Learning Objective:

* What is Time Series data?
* Why is it relevant in our Industry?
* Pandas – an important package for Time Series analysis

Exercise for Day 3:

Pandas based things for the students to try and learn.

A dataset is provided.

## Day 4 Big Data – Machine Learning Overview

### Learning Objective for Day 4:

* Motivating Machine Learning
* ML for Managers – just enough to know
* How does a computer “learn?”

Exercise for Day 4

* Hands on ML. Let’s build a Decision Tree

## Day 5: Intro to Cloud Computing

### Learning Objectives for the day:

* What is Cloud Computing?
* Why do we need it?
* What is O&G Digital Framework?
* What is Predix?

Exercise

## Day 6: Internet of Things

### Learning Objectives of the Day:

Exercise

## Day 7: Digital Twin & Simulation

### Learning Objective:

Exercise

## Day 8: Brilliant Factory

### Learning Objective:

Exercise

## Day 9: Case Studies & Industry Visit

### Learning Objective:

Exercise