Introduction

Agenda

- Lecture protocols
- Who am I?
- What to expect from this bootcamp?
- Python History and Importance in Data Science
- Walkthrough through different IDEs

Lecture protocol

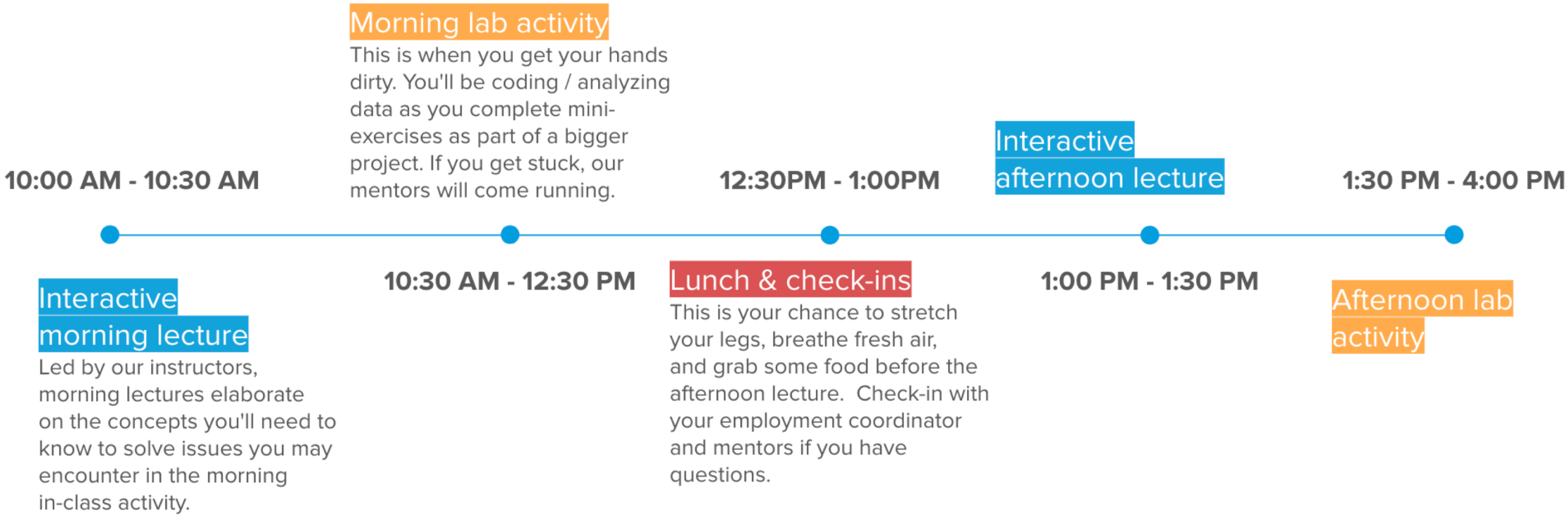
- Use the raise hand on Zoom to ask questions (or send me a message). I will reach and answer your question as soon as I can.
- Please keep microphones on mute otherwise.
- For additional questions, I will be taking breaks in between lectures and any pending questions or reexplanation of a concept can be done.
- Enjoy the lecture!

What to expect from this bootcamp?

- Very industrial oriented approaches that are connected to the industrial practices
- Research and try!
- Reach out for any extra information
- General paths include: data engineering, data science, machine learning engineering

A typical day in a learning lab

Monday's, Tuesday's, ~~Wednesday's~~*, Thursday's, and Friday's



***CATCH-UP & CHECK-IN DAY!** No class!

Week 1: Programming for Data Science

Day 1:

-Introduction

-Environment Set Up

-Introduction to Python Programming

Day 2:

Python Programming

Day 4:

APIs

Day 5:

Probability and Statistics

Week 2: Data Wrangling

Day 1:

SQL

Day 2:

Pandas

Day 4:

-JSON

-XML

Day 5:

Project & Demo Day

Week 3: Data Visualization & Machine Learning

Day 1:

Data Visualization

Day 2:

Data Preparation

Day 4:

Feature Engineering

Day 5:

Unsupervised Learning

Week 4: Machine Learning & Program Wrap Up

Day 1:

Dimensionality Reduction

Day 2:

-Sampling

-Model Evaluation

Day 4:

-Different Modelling Techniques

-Project Kick Off

Day 5:

Project & Demo Day

Feedback for Learning

```
assessment = {
  completion:      [],
   codeReviews:     [],
   projects:          [],
   quizAnswers:     [],
   assistances:       []
};
```

Python History and Importance in Data Science

- Python was first introduced by **Guido Van Rossum** in 1991 at the National Research Institute for Mathematics and Computer Science, Netherlands (https://www.journaldev.com/34415/history-of-python-programming-language)
  - In 1994, Python 1.0 was released with new features like lambda, map, filter, and reduce.
  - Python 2.0 added new features such as list comprehensions, garbage collection systems
  - On December 3, 2008, Python 3.0 (also called "Py3K") was released. It was designed to rectify the fundamental flaw of the language. (https://www.javatpoint.com/python-history)
- Why Python for data science?
  - Simple programming language to pick up, from a syntax point of view.
  - Python also has an active community with a vast selection of libraries and resources.
  - Production-ready code can be written

Questions?

Thank you!