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Spark Summit Europe 2017

databricks

Deep Learning, Keras, TensorFlow, + Spark

- Intro + Artificial Neural Networks
- TensorFlow Basics
- Convolutional Networks
- Recurrent Nets, LSTM
- Intro to Reinforcement Learning
- Building Deep Learning Models with Spark
- Using Spark for Inference (Prediction)
- Operations in the Real World

Instructor: Adam Breindel

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Email: adbreind@gmail.com

- ~20 years building systems for startups and large enterprises
- 10 years teaching front- and back-end technology
- Fun big data projects…
  - Streaming neural net + decision tree fraud scoring (debit cards)
  - Realtime & offline analytics for banking
  - Music synchronization and licensing for networked jukeboxes
- Industries
  - Finance / Insurance
  - Travel
  - Media / Entertainment

Today's Schedule

10:30 a.m. – 11 a.m.	Coffee Break
12 p.m. – 1 p.m.	Lunch
3 p.m. – 3:30 p.m.	Afternoon Break
5 p.m.	End of Class

Today's Class – Informal Survey

- Today is my first day trying machine learning
- I've done some tutorials, know the ideas, built a few toy models
- I've been working with machine learning for < 1 year in my job
- I'm a data scientist and I've been working with predictive analytics and machine learning for years

Files and Resources

Documents

- These slides: http://tinyurl.com/dublin-start

Databricks

- You should have a working Databricks account
  - If not, sign up for **free Community Edition** now at http://tinyurl.com/databricks-ce
  - Use a laptop with **Firefox** or **Chrome** (Internet Explorer / MS Edge not supported)

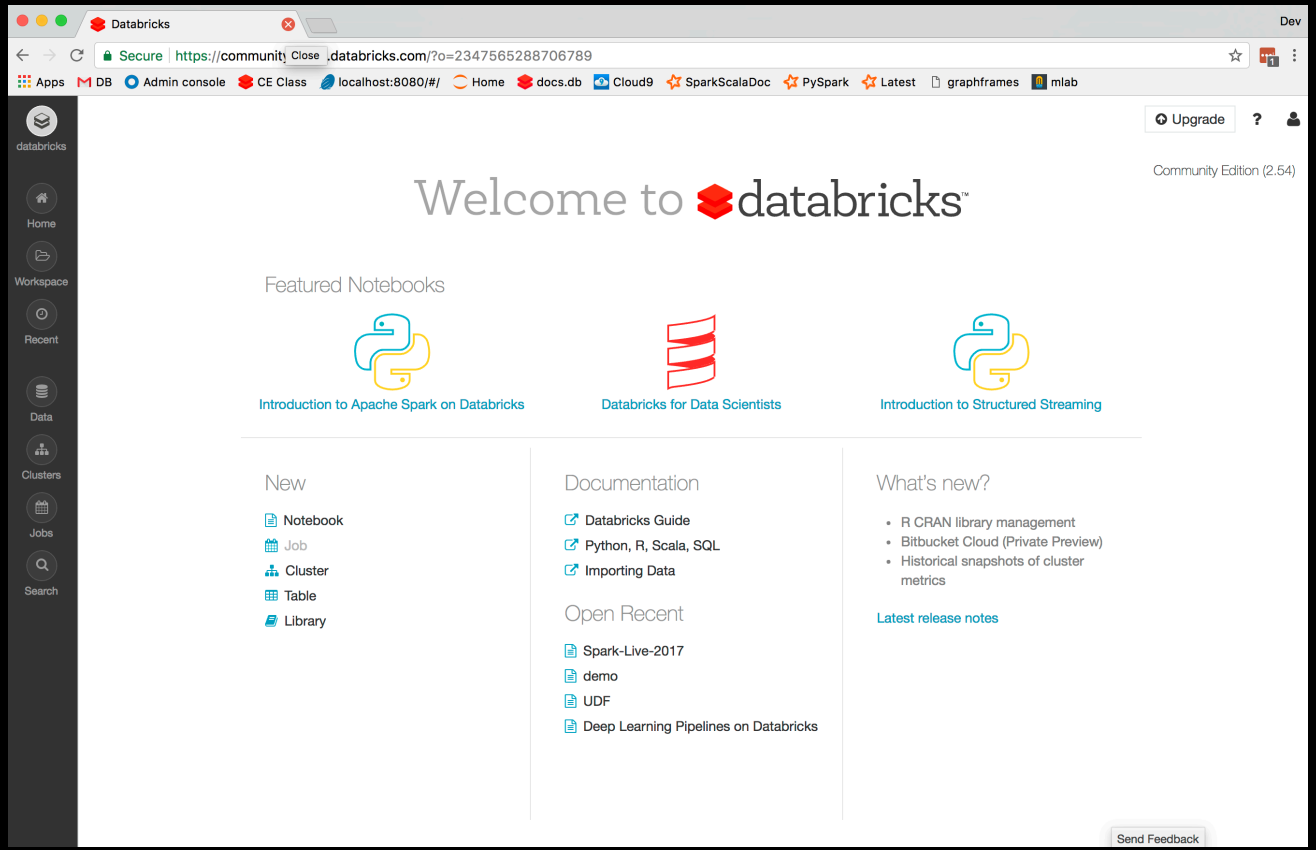
Getting Started

- Import

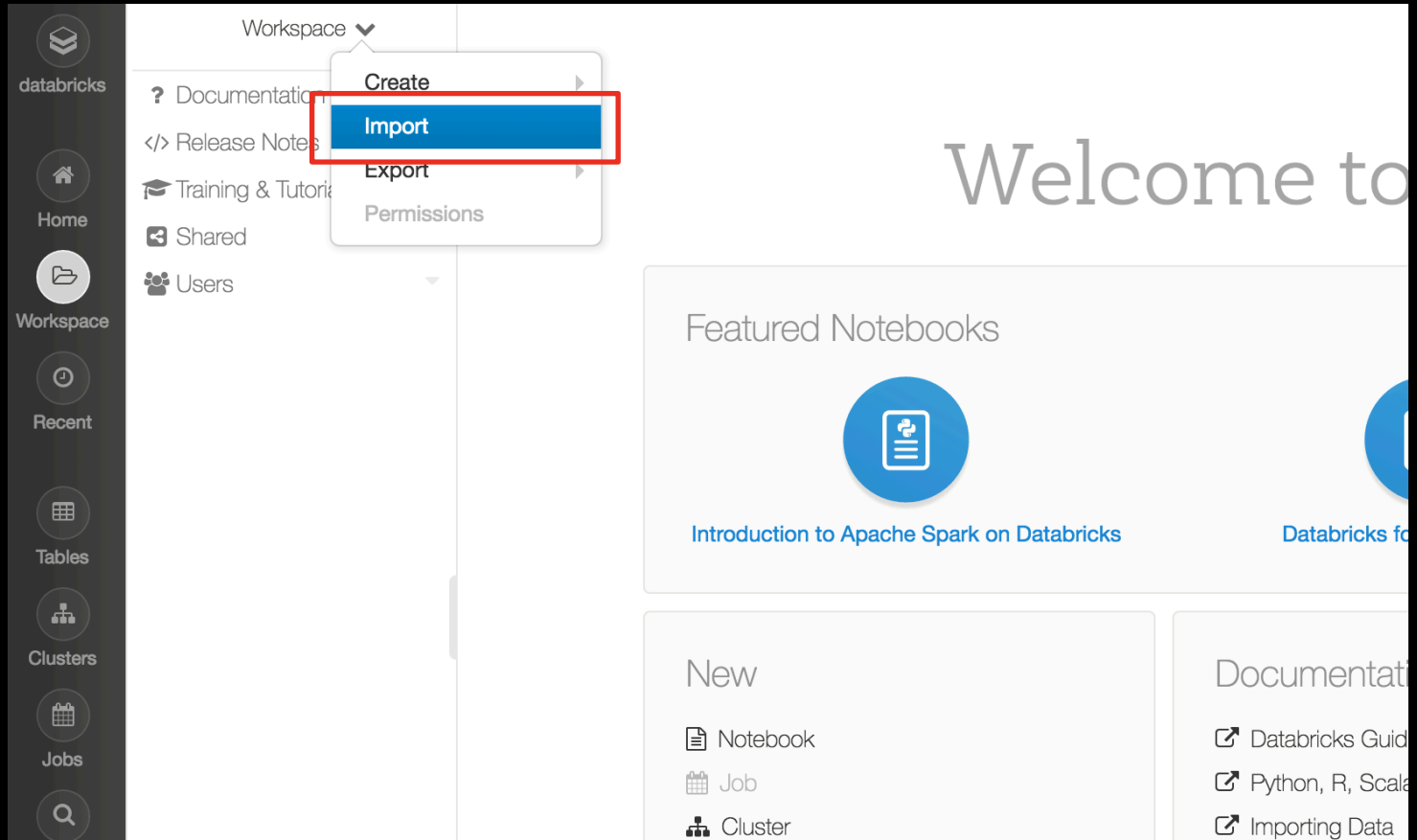
  http://files.training.databricks.com/events/summit-2017-10/deep-learning/Labs.dbc

  directly into your Databricks account per the instructions (and live demo) on the following slides.
- Create a cluster: choose `Databricks Runtime 3.2`

Log in to Databricks



Import Notebook for Today…



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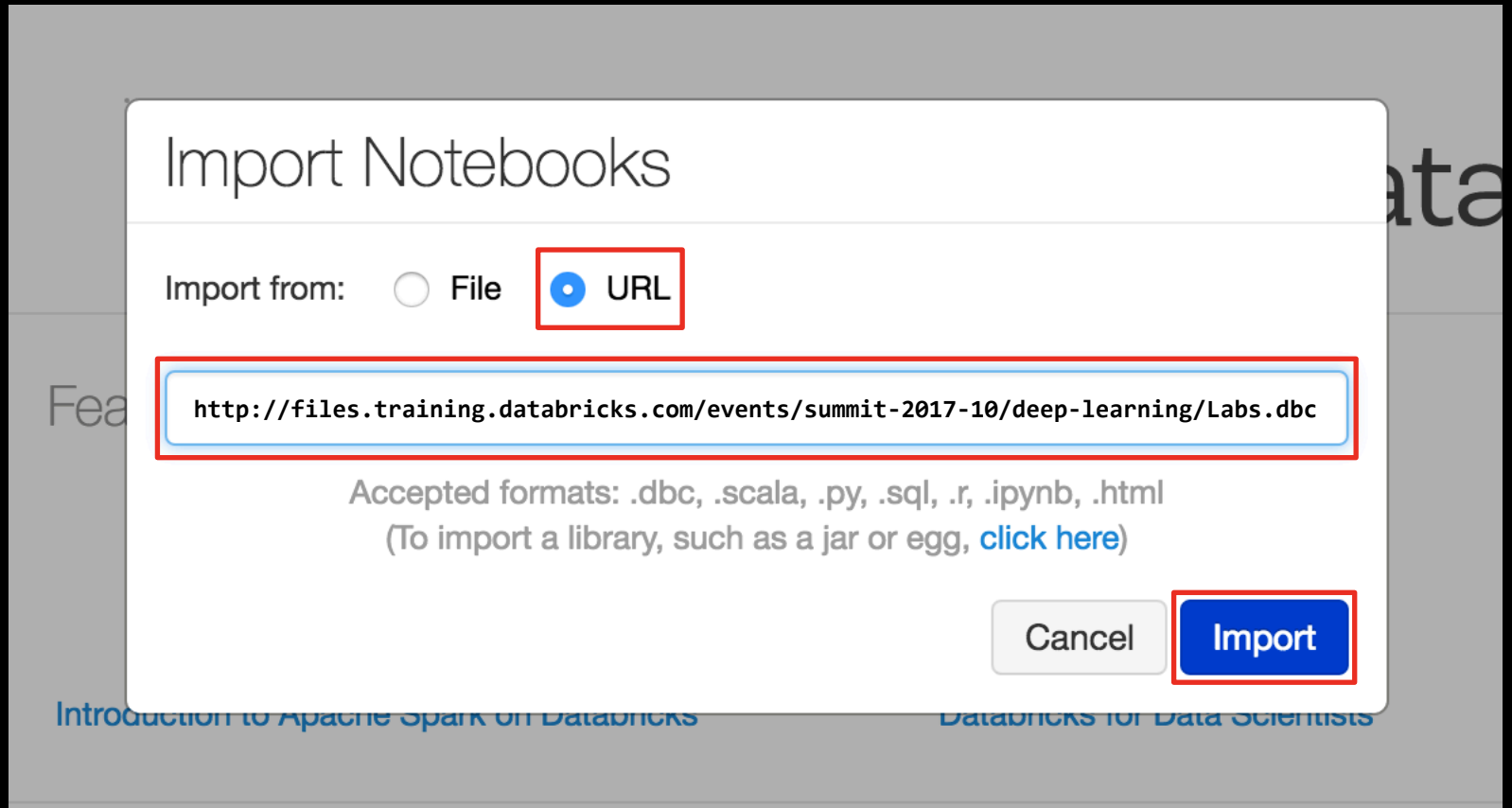
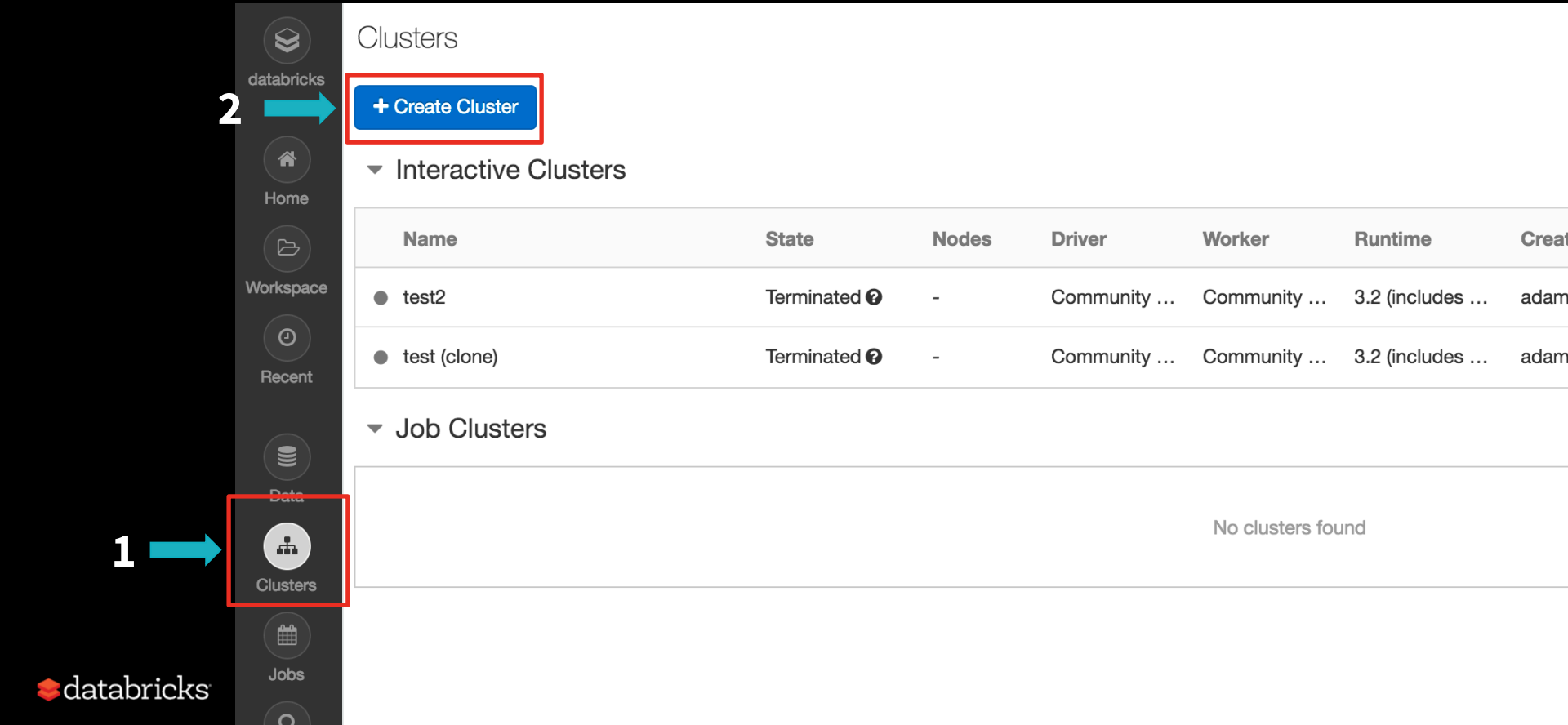


Create a Cluster



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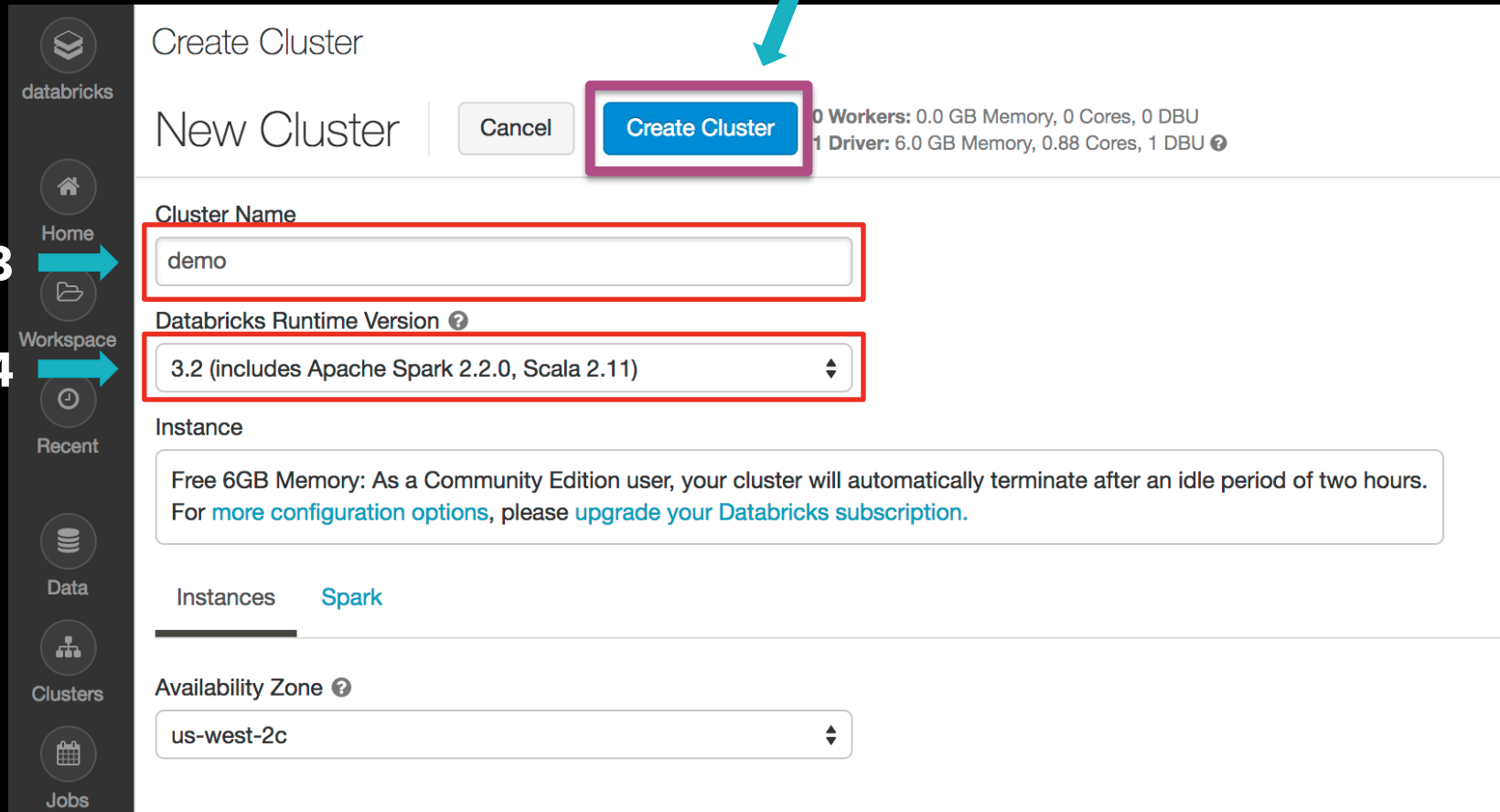
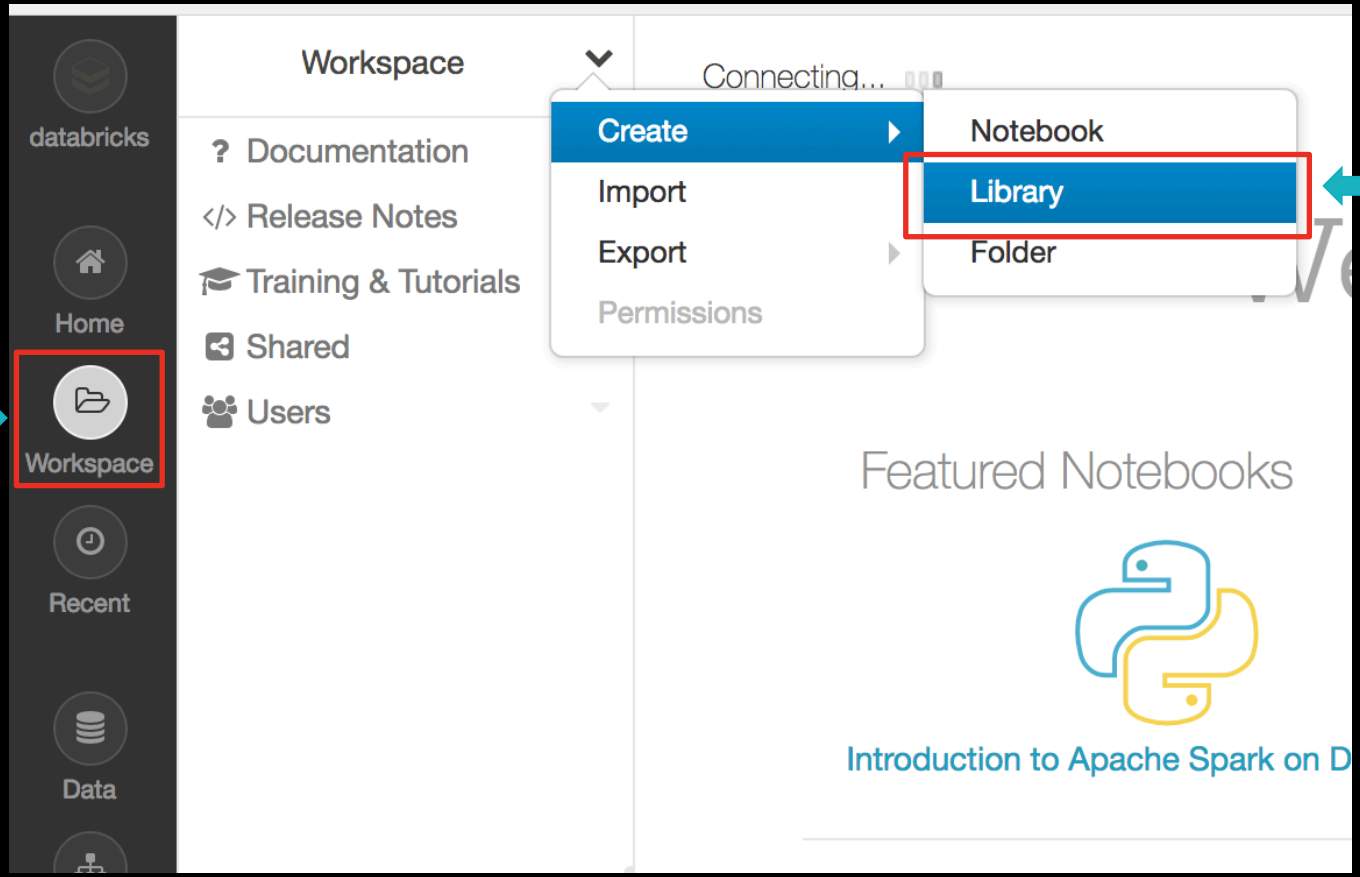


Install TensorFlow Library



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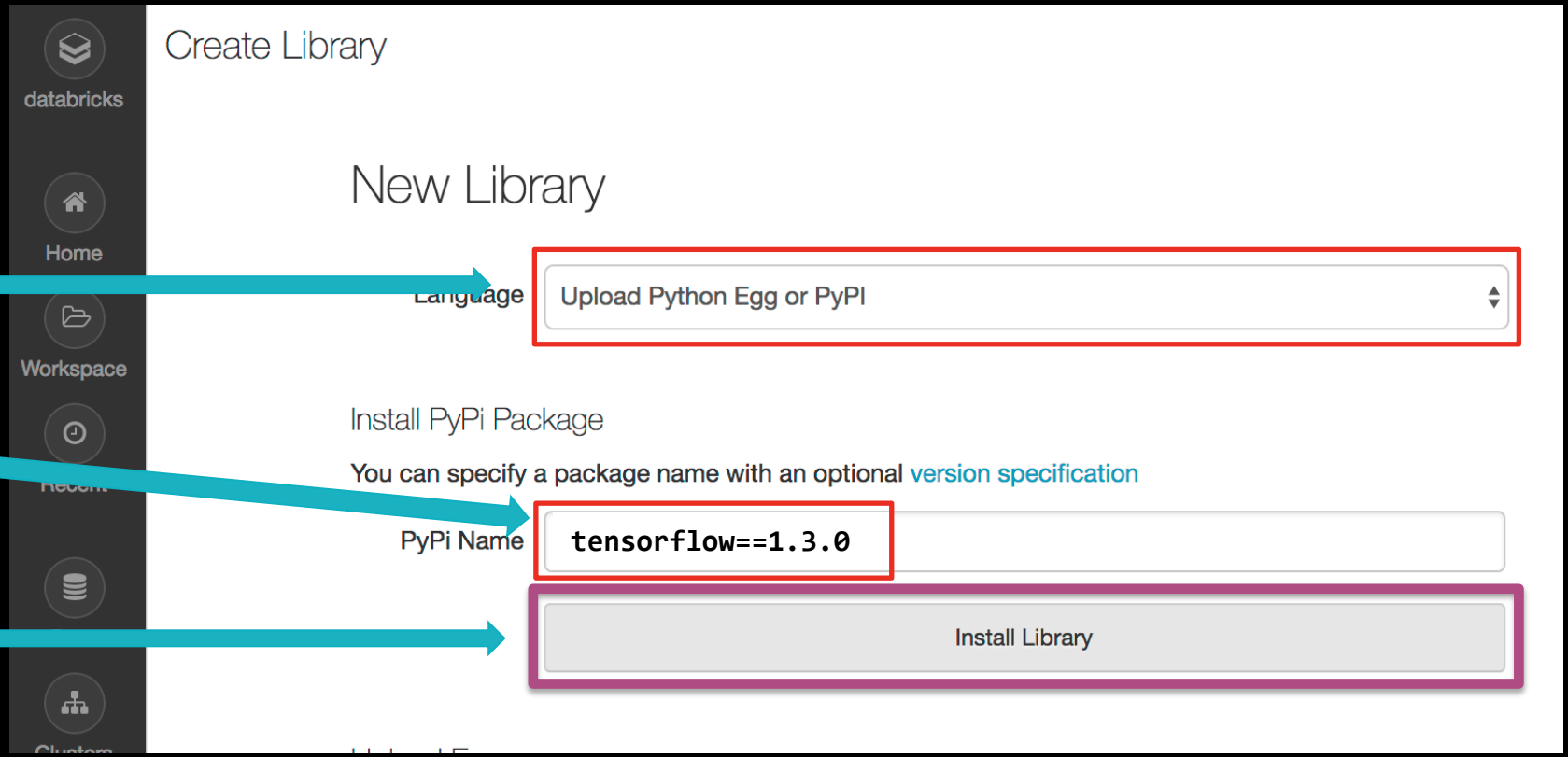
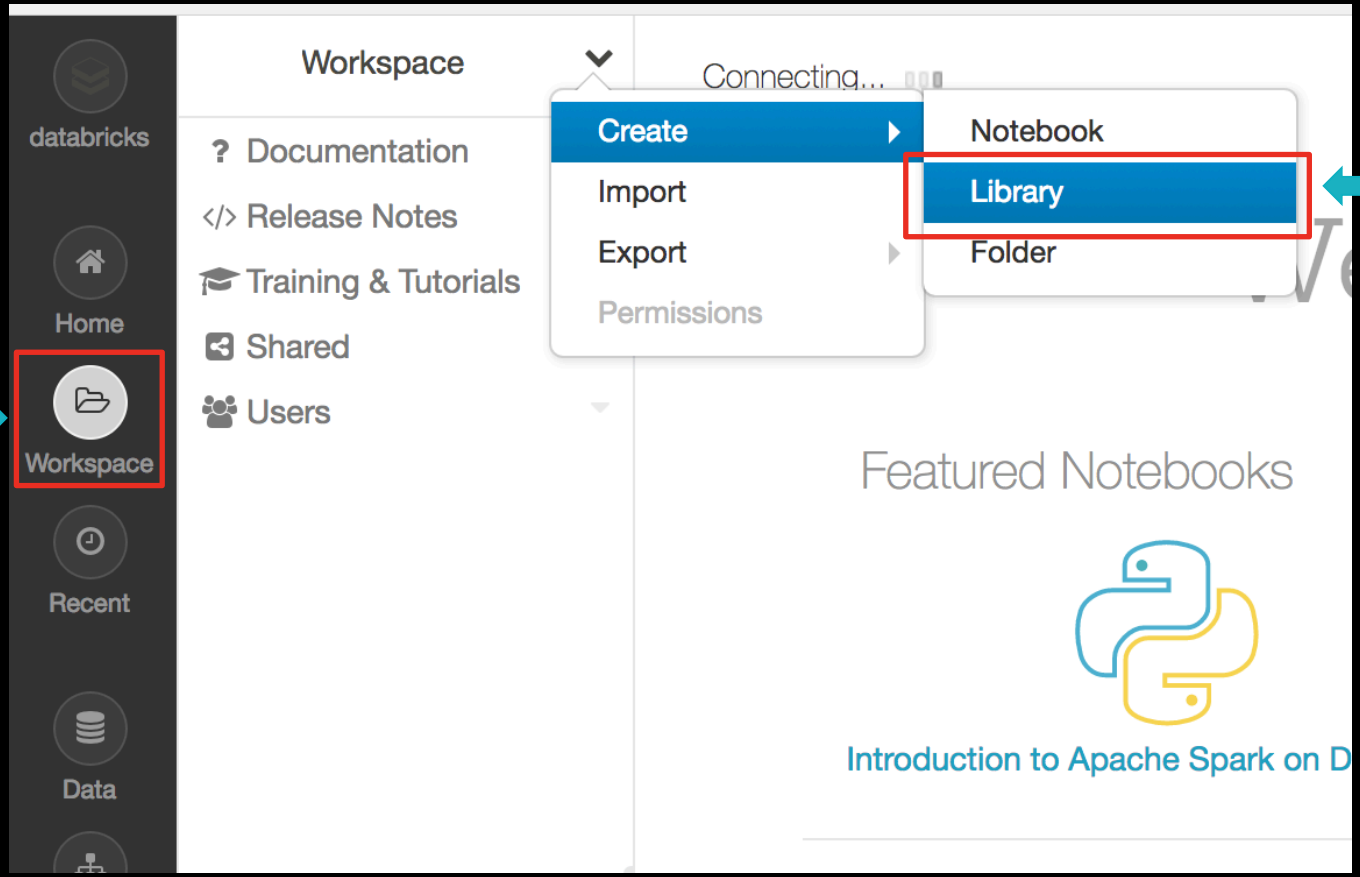


Install Keras Library



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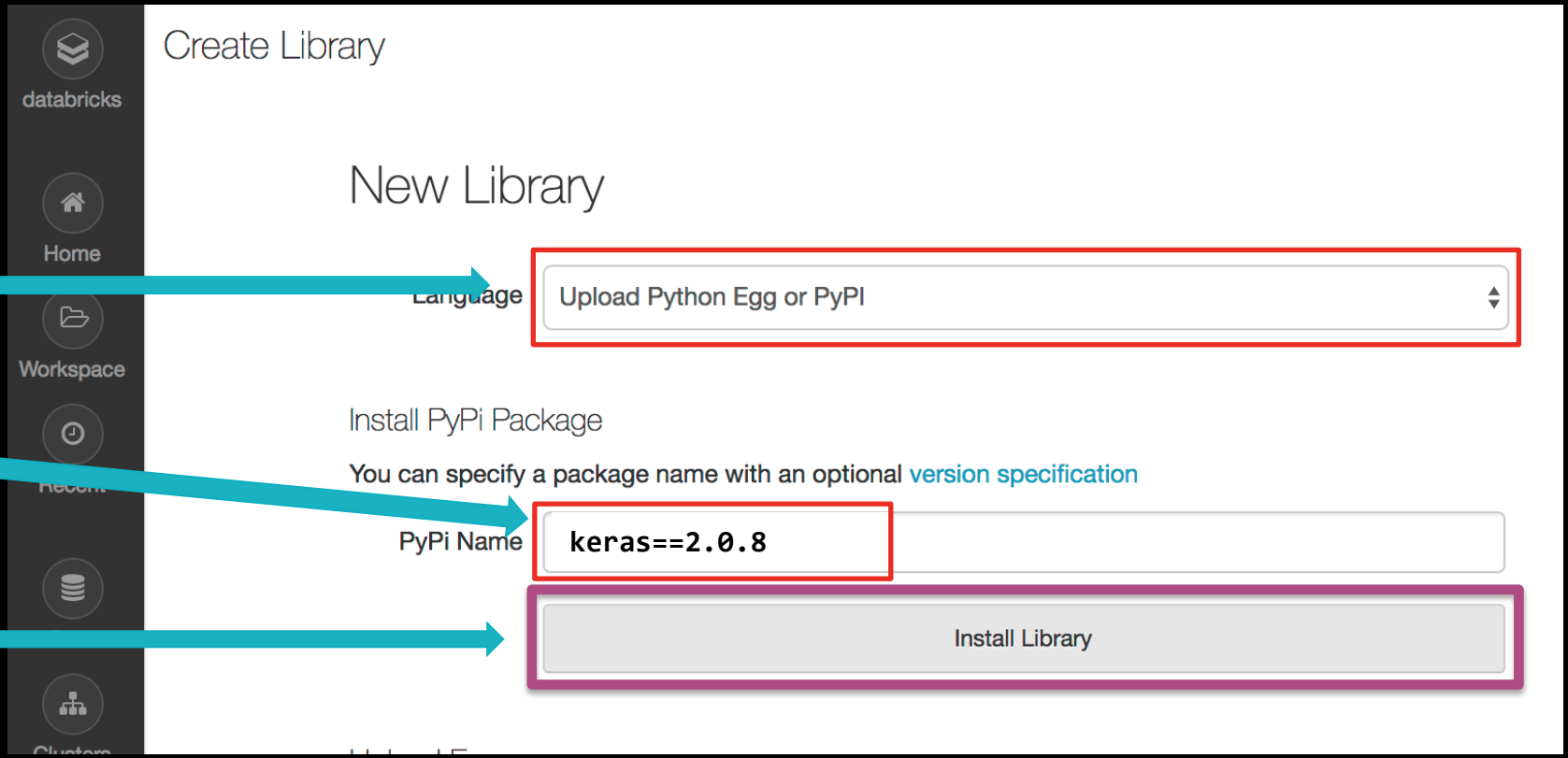

Let's Get Started!