



NATIONAL RESEARCH
UNIVERSITY

School of Data Analysis and Artificial
Intelligence Department of Computer Science

DATA SCIENCE FOR BUSINESS

Lecture 10. Making models work in business. Concluding remarks.

Moscow, June 17th, 2022.

RETAIL ANALYTICS

Technical topics

- EDA and data visualization
- Regression
- Classification
- Clustering/Dim reduction
- Time series
- Recommender systems
- Experiment design
- Agent based modeling



Use cases

- Sales forecast
- Customer churn management
- Customer segmentation
- Personalization
- A/B testing
- Simulation

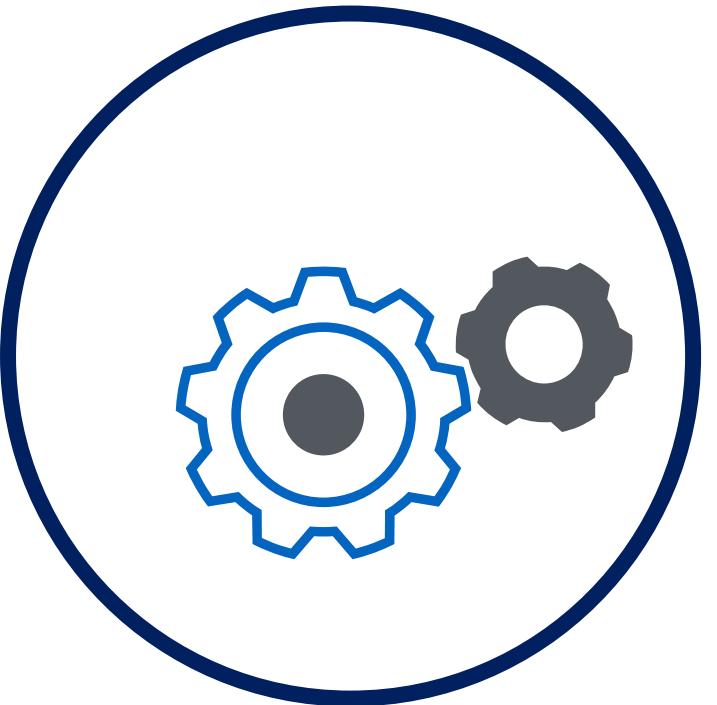
DATA SCIENTIST AND ALGORITHMS

Data science for decision making



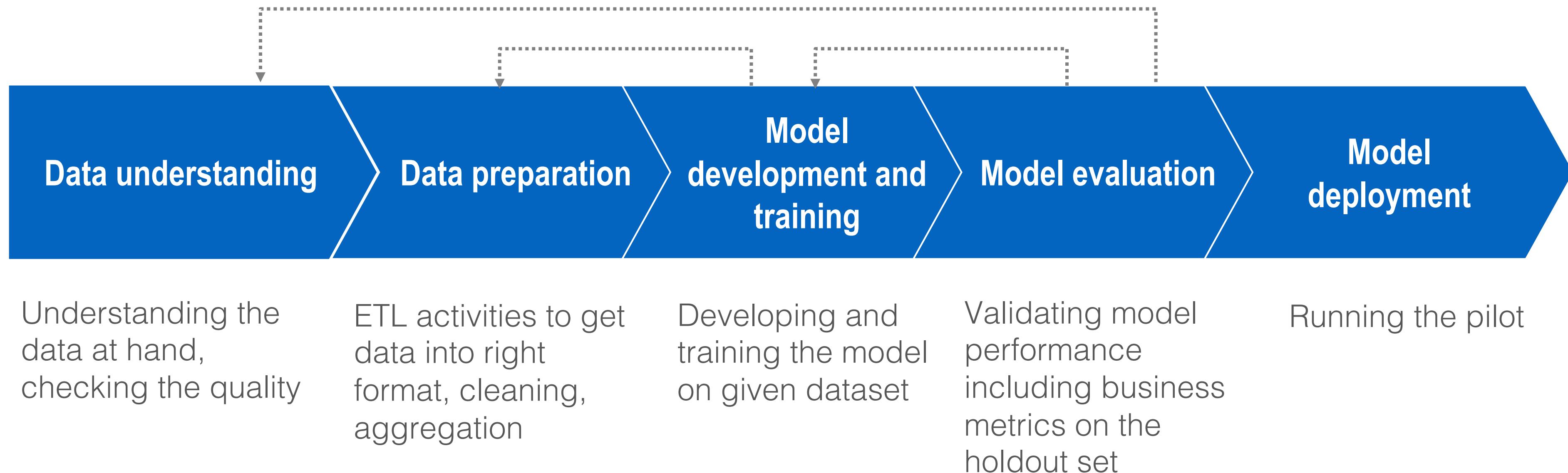
- End users: business decision makers like executives, product managers, designers, or clinicians.
- Goal - draw conclusions from data to make decisions
- DS role - design, define, and implement metrics, run and interpret experiments, create dashboards, draw conclusions

Data science for production



- End users: customers through interaction with algorithm enabled services
- Goal – develop prediction algorithm operating independently, building POC and MVP product.
- DS role – develop algorithms, train and test, deploy to the production system,

DATA SCIENCE MODELING PIPELINE



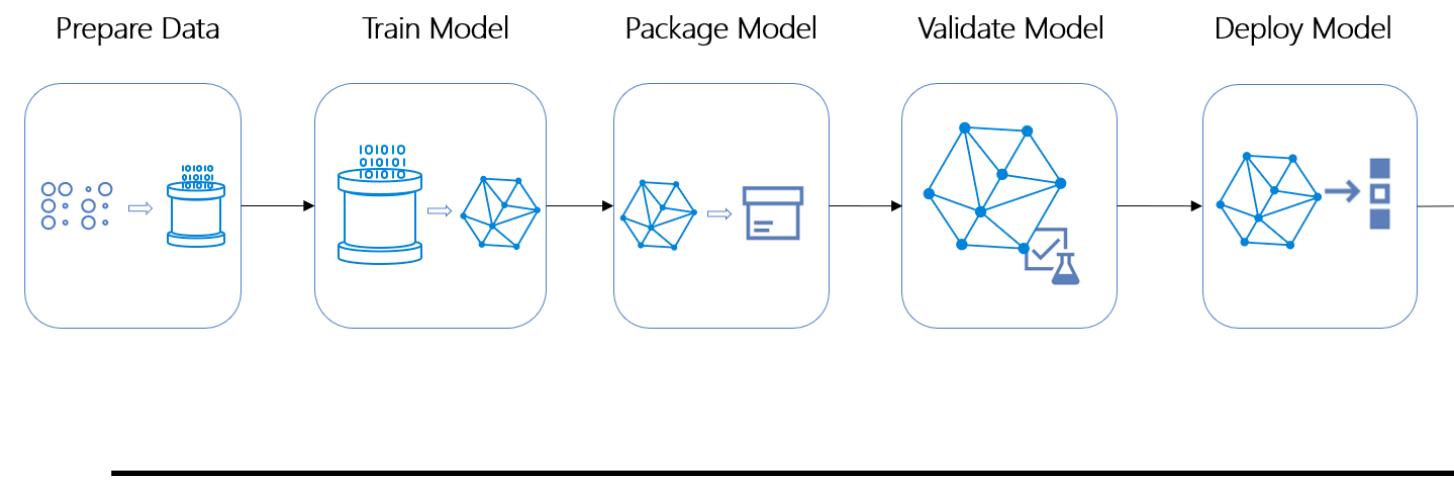


TOOLS OF THE TRADE

orange

rapidminer

alteryx

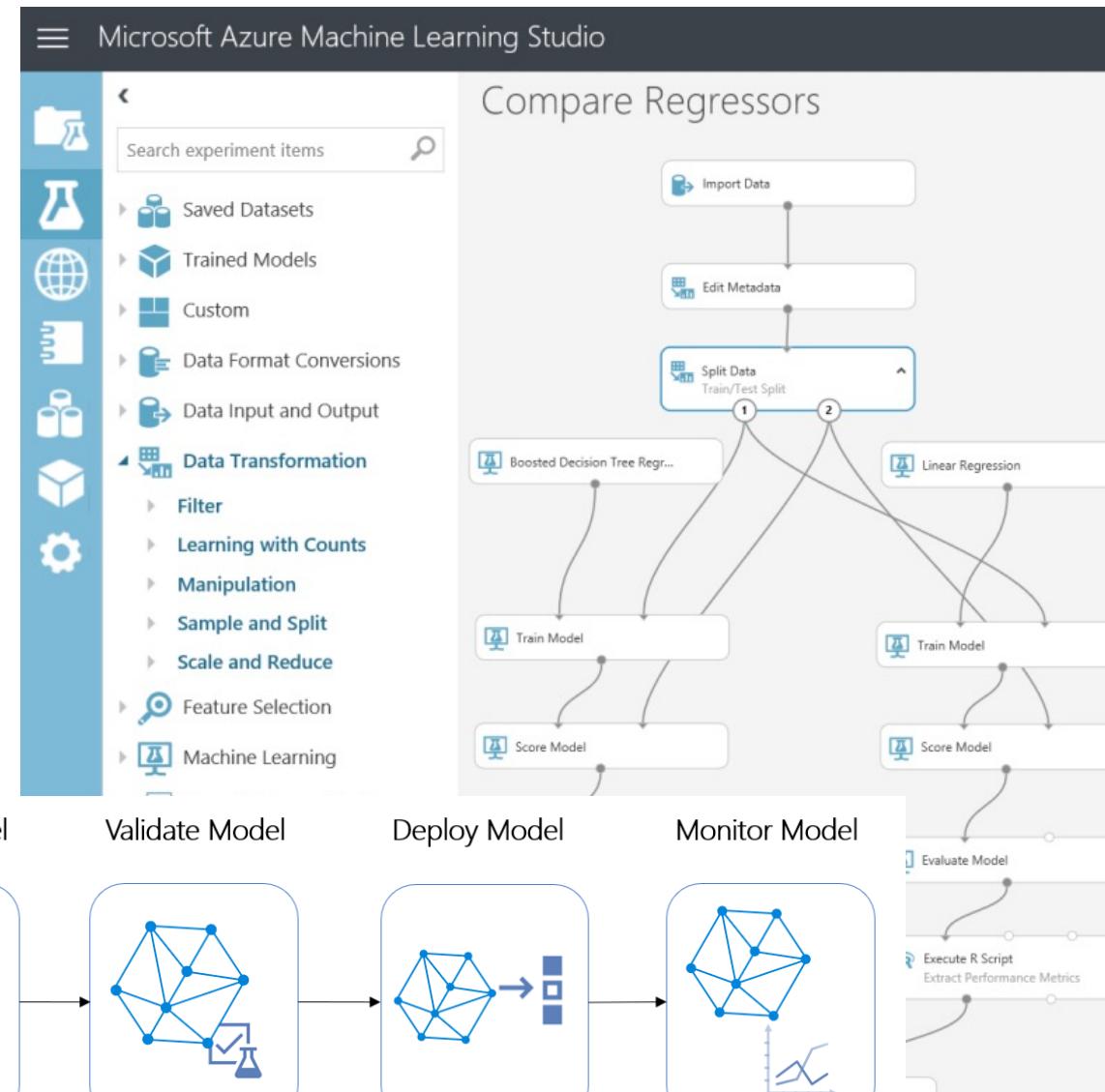


NetLogo

anylogic®



Azure Machine Learning



python

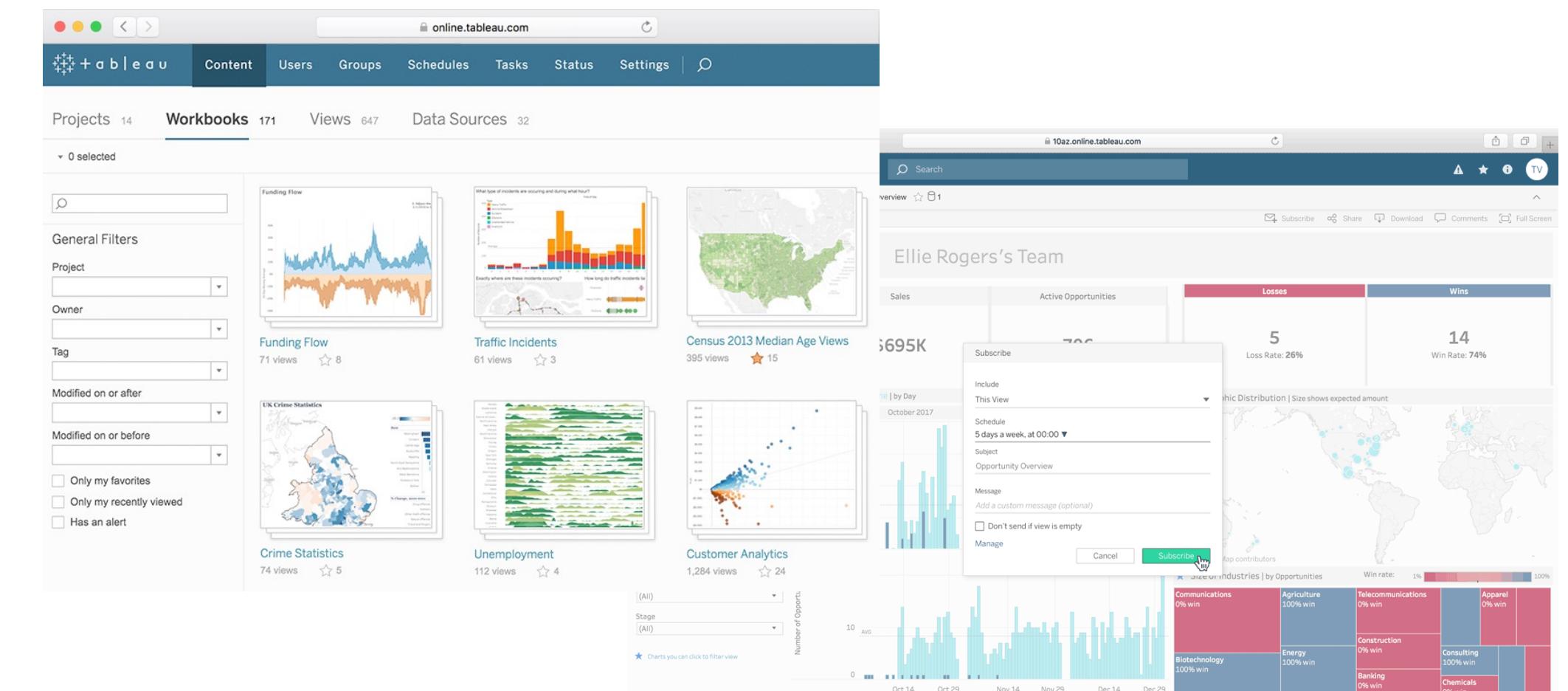
pandas

scikit learn

jupyter

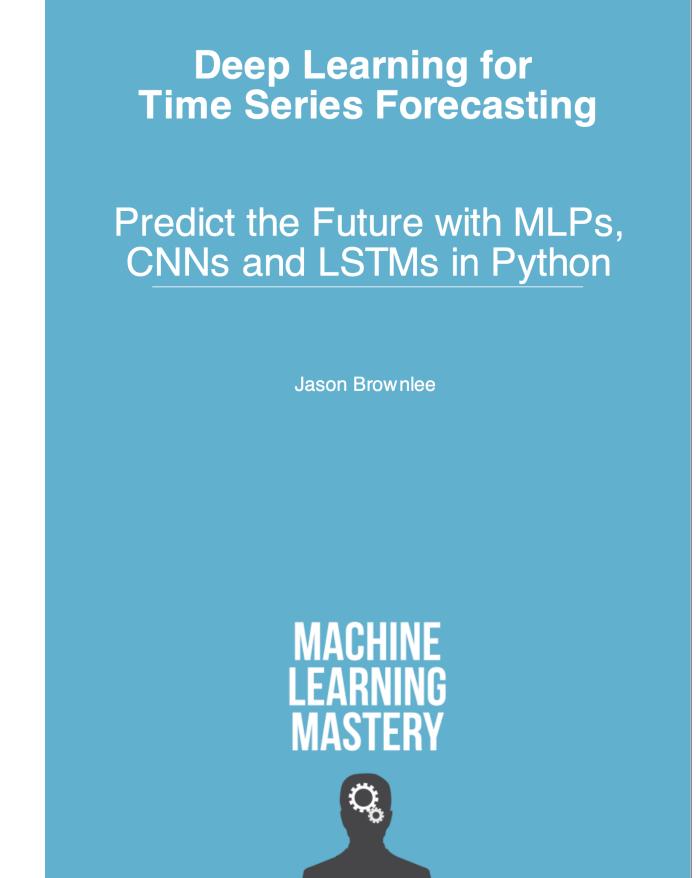
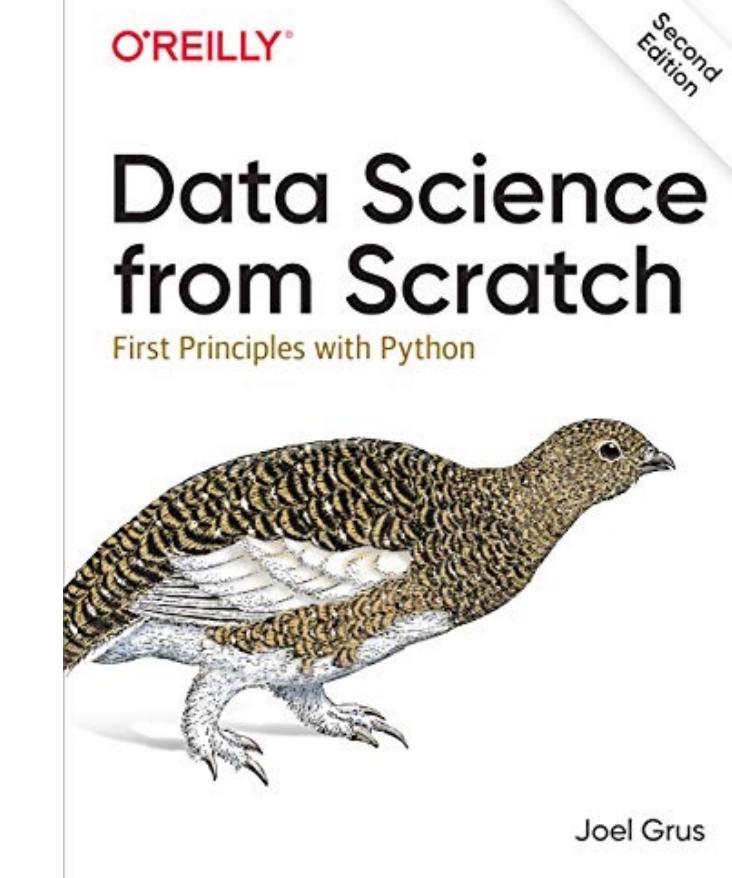
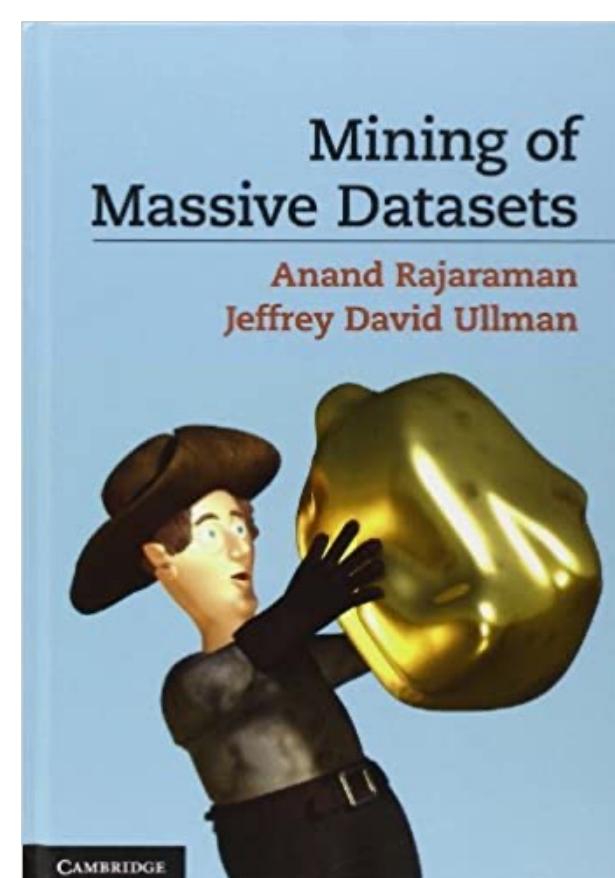
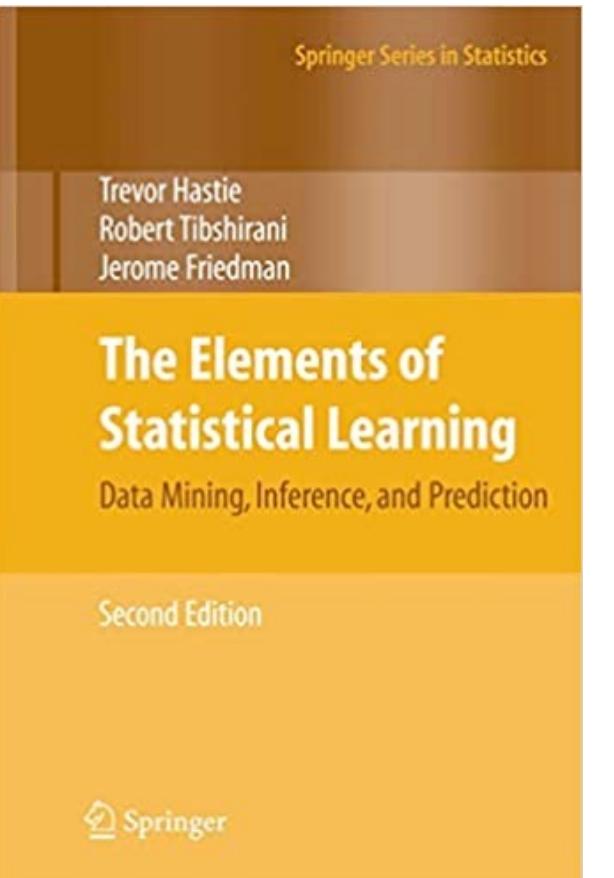
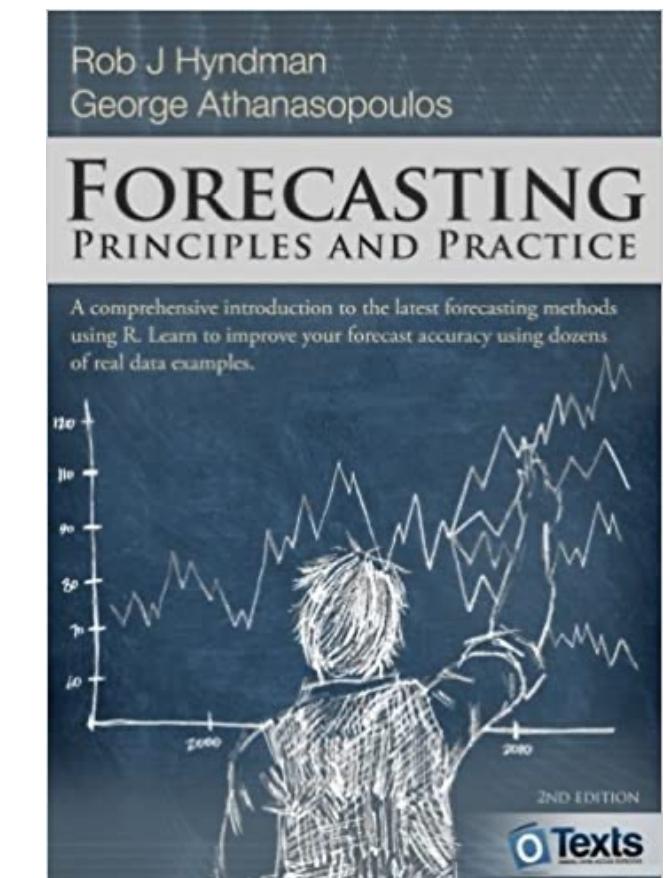
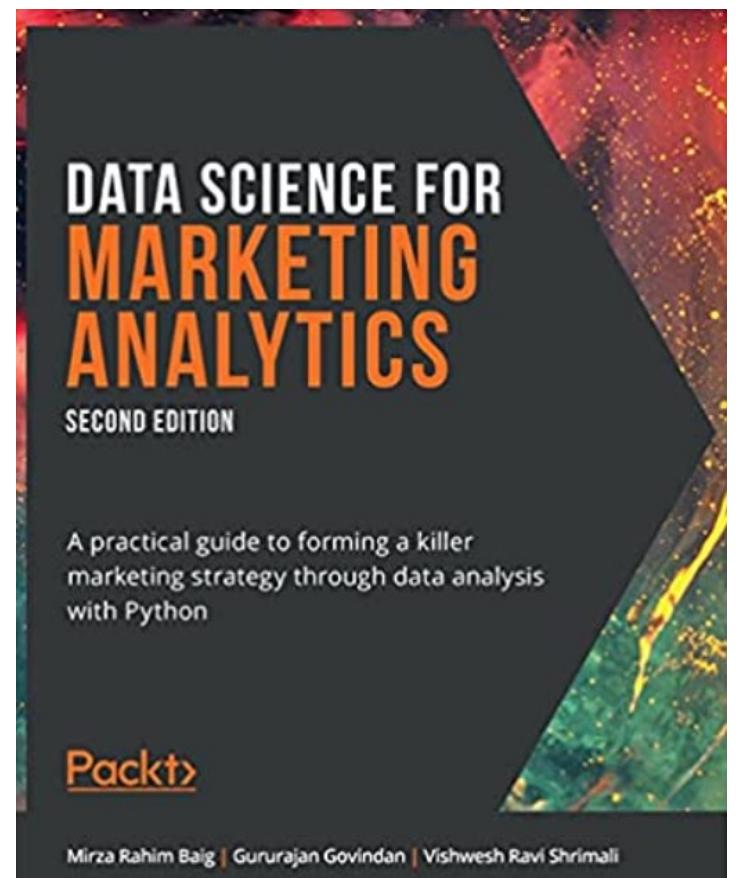
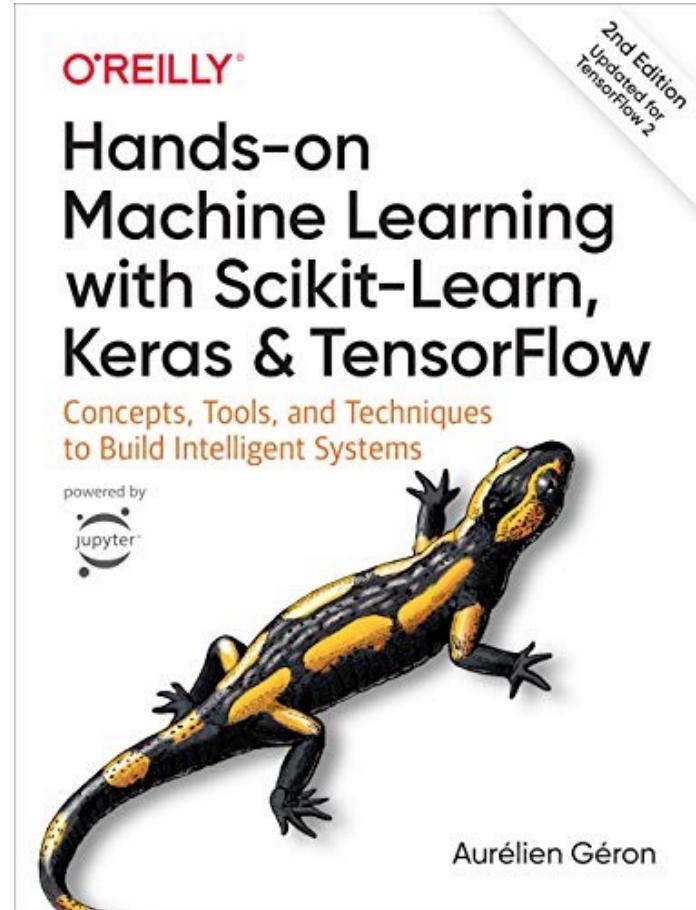
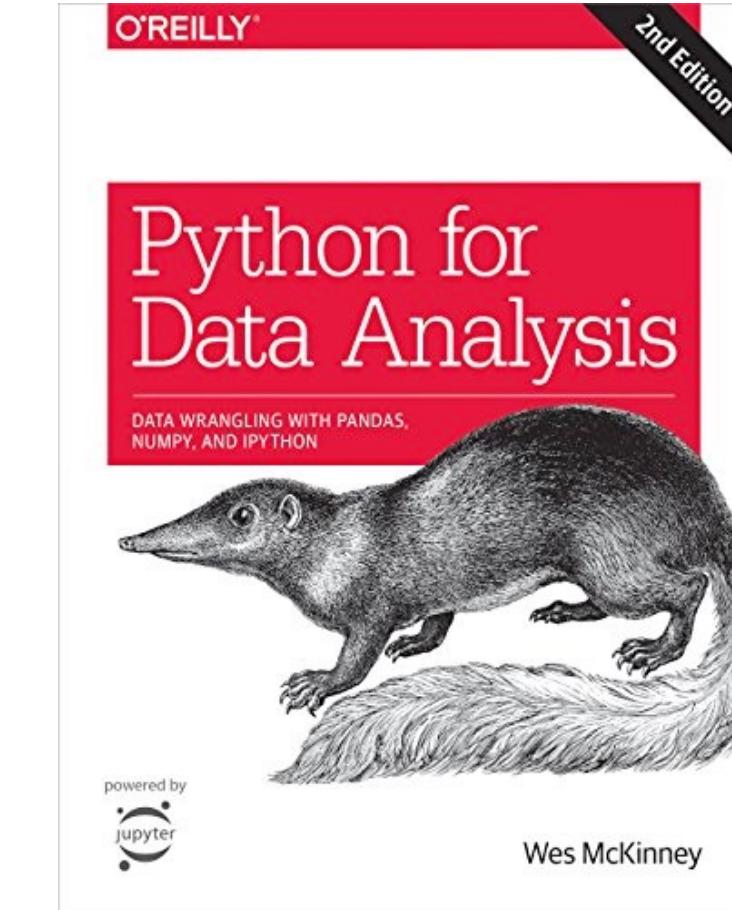
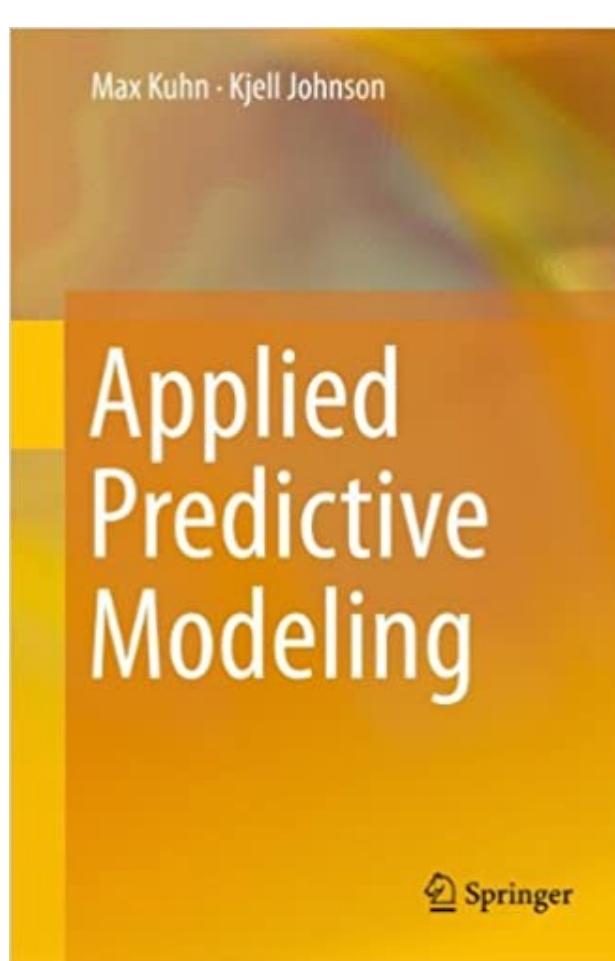
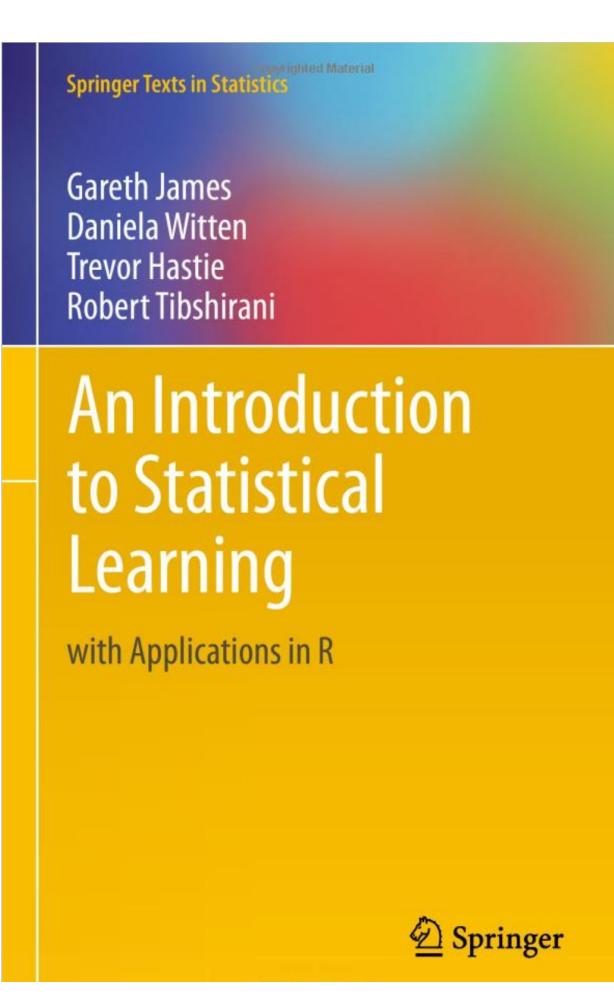
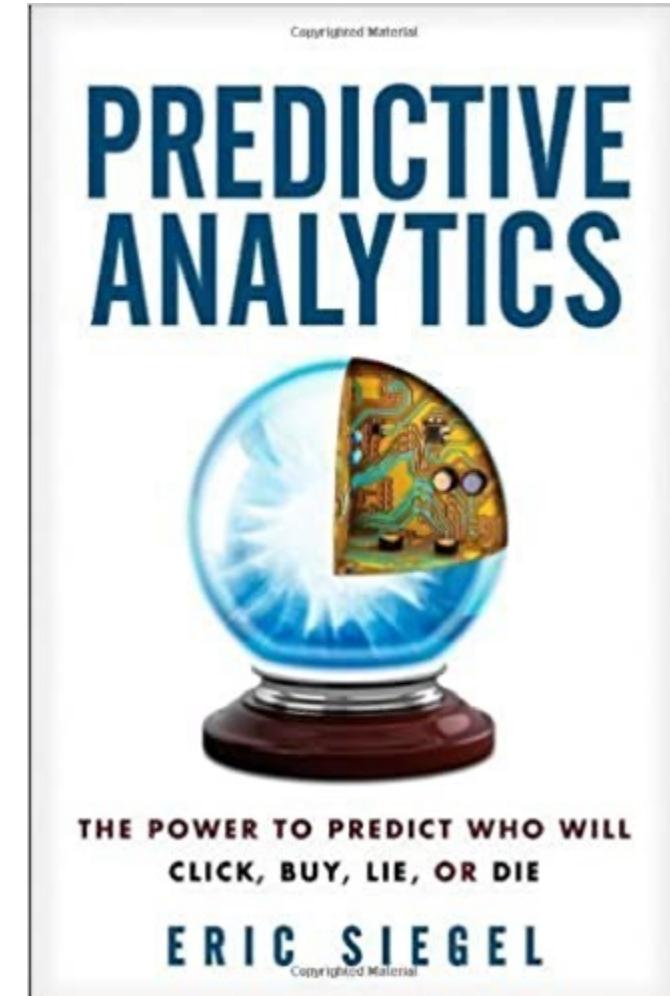
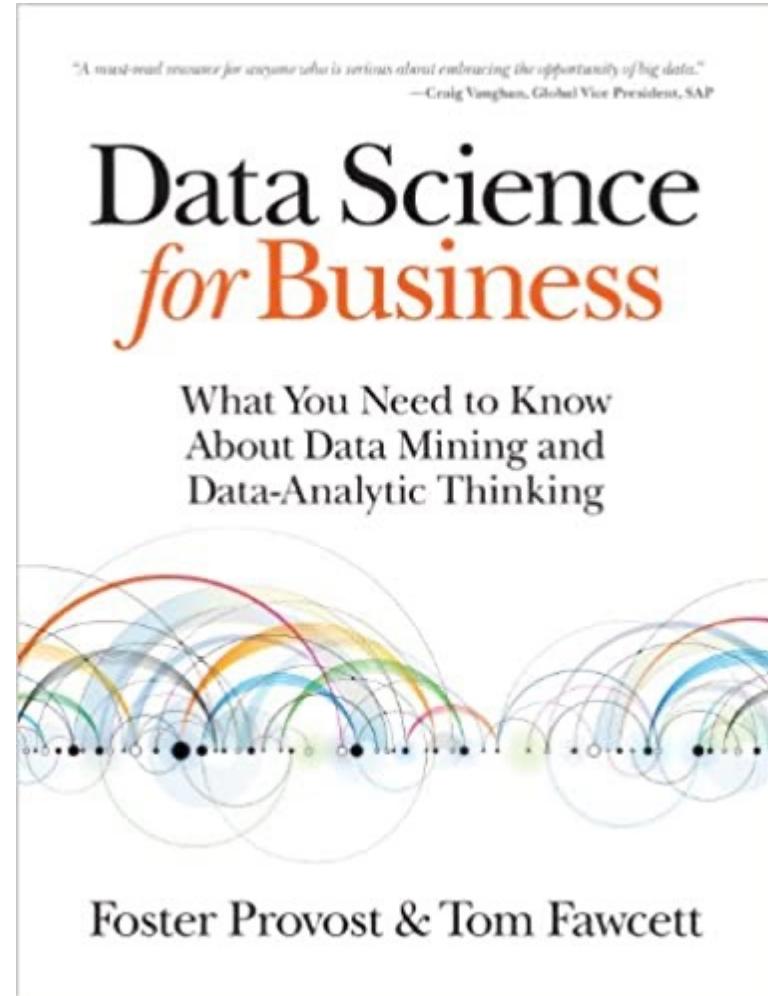
+ tableau®

Power BI





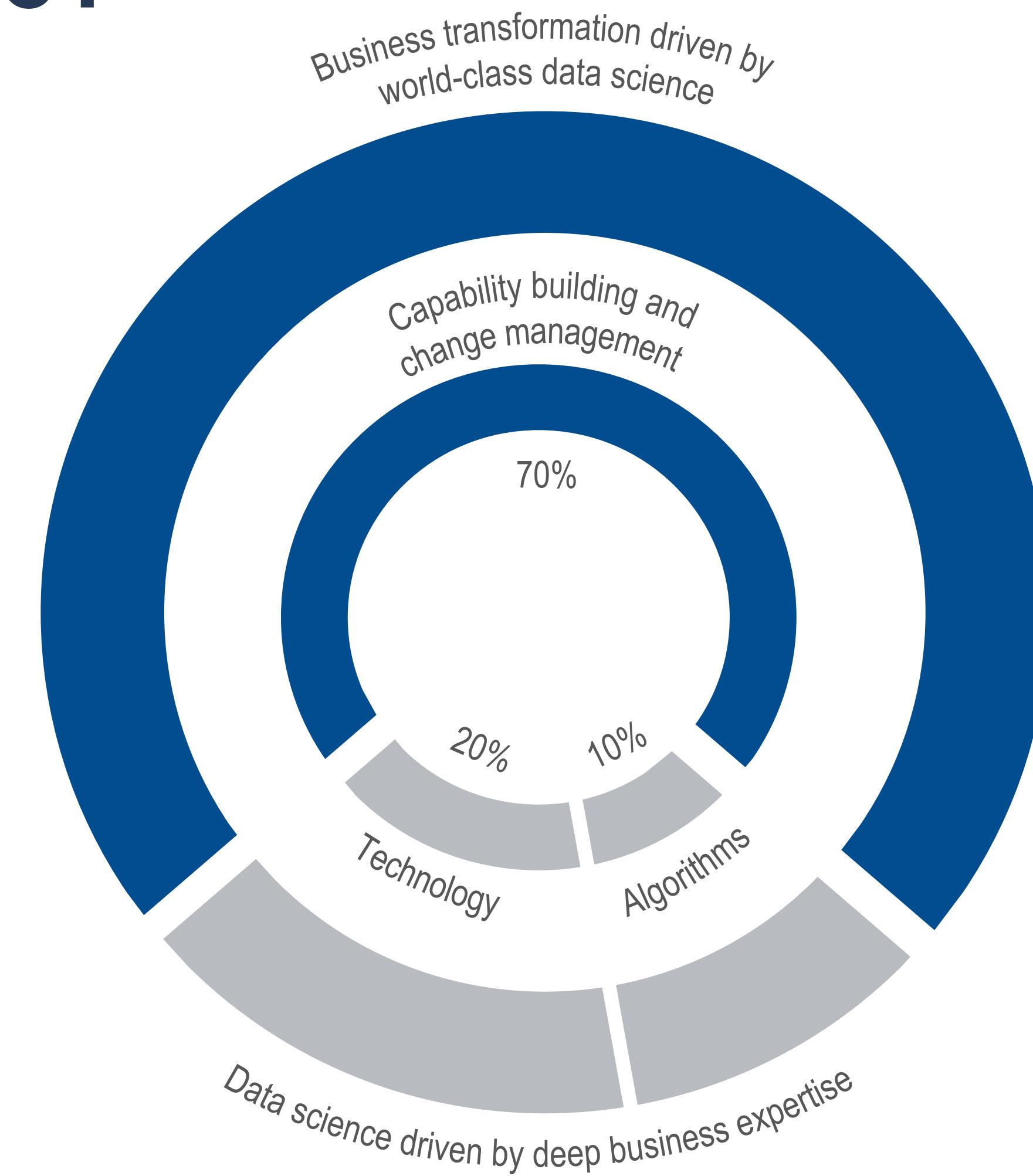
BOOKS TO LEARN MORE...



DELIVERING BUSINESS IMPACT

Overall effort:

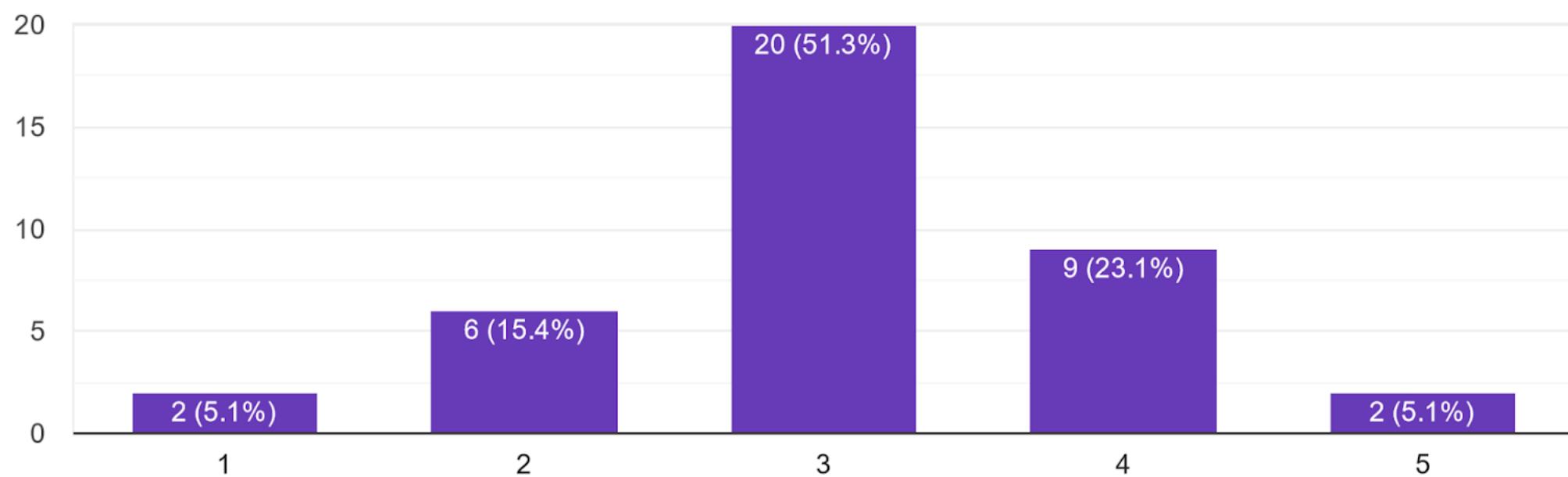
- 10% Algorithms
- 20% Technology
- 70% Change management



COURSE FEEDBACK

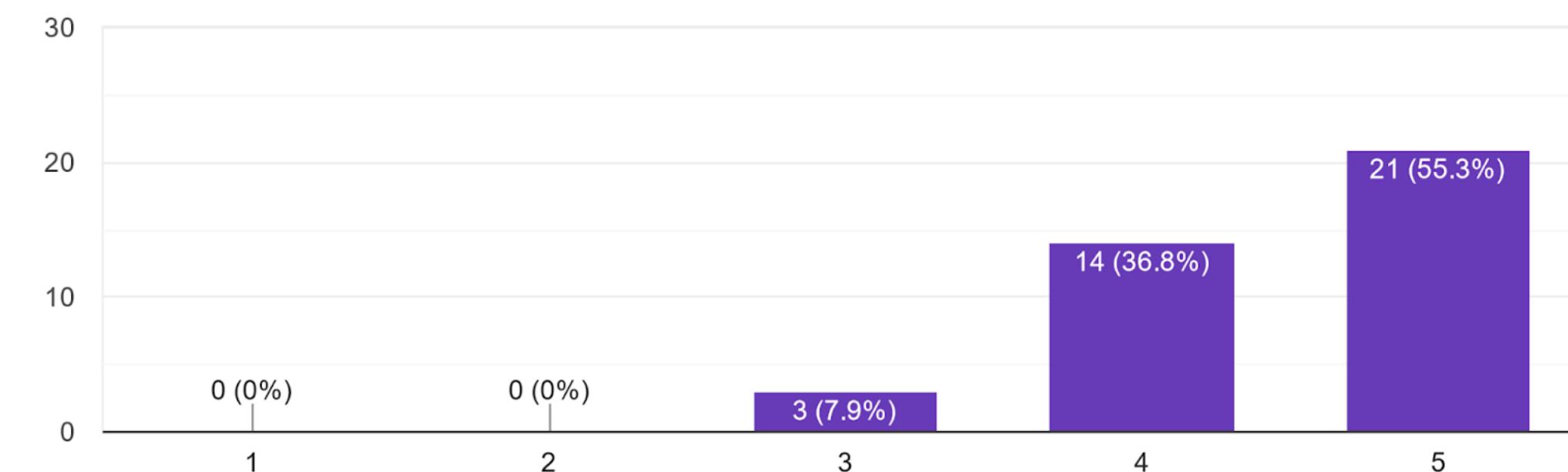
How hard is the lectures' material?

39 responses



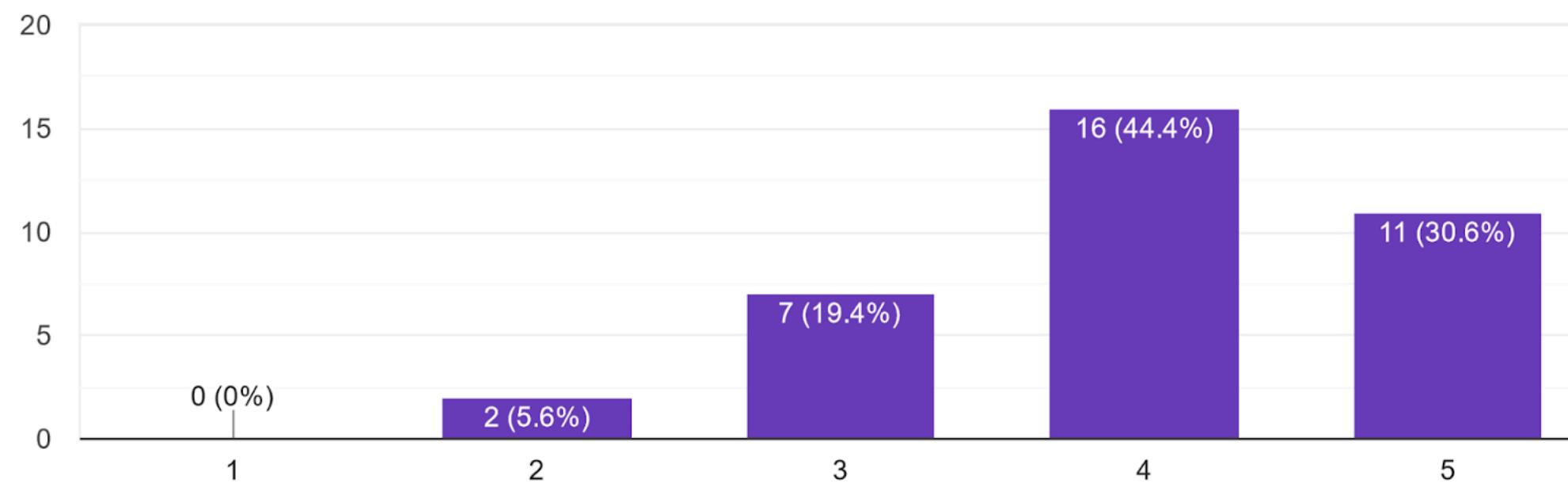
How interesting are the lectures?

38 responses



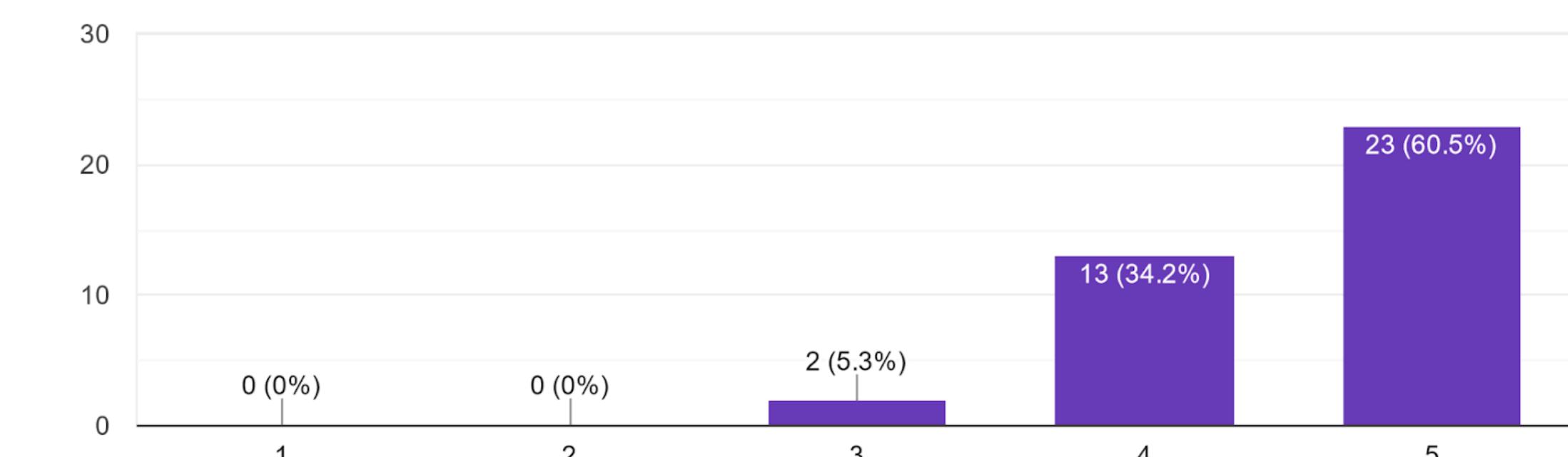
Do lectures and seminar materials coincide?

36 responses



How good are the explanations during the lectures?

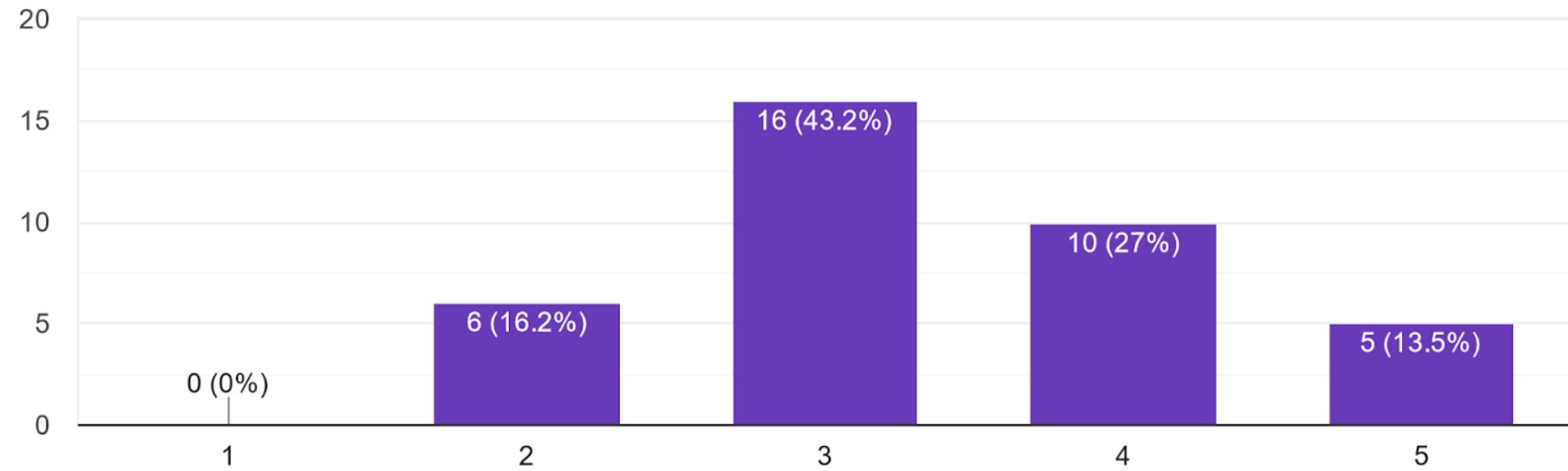
38 responses



COURSE FEEDBACK

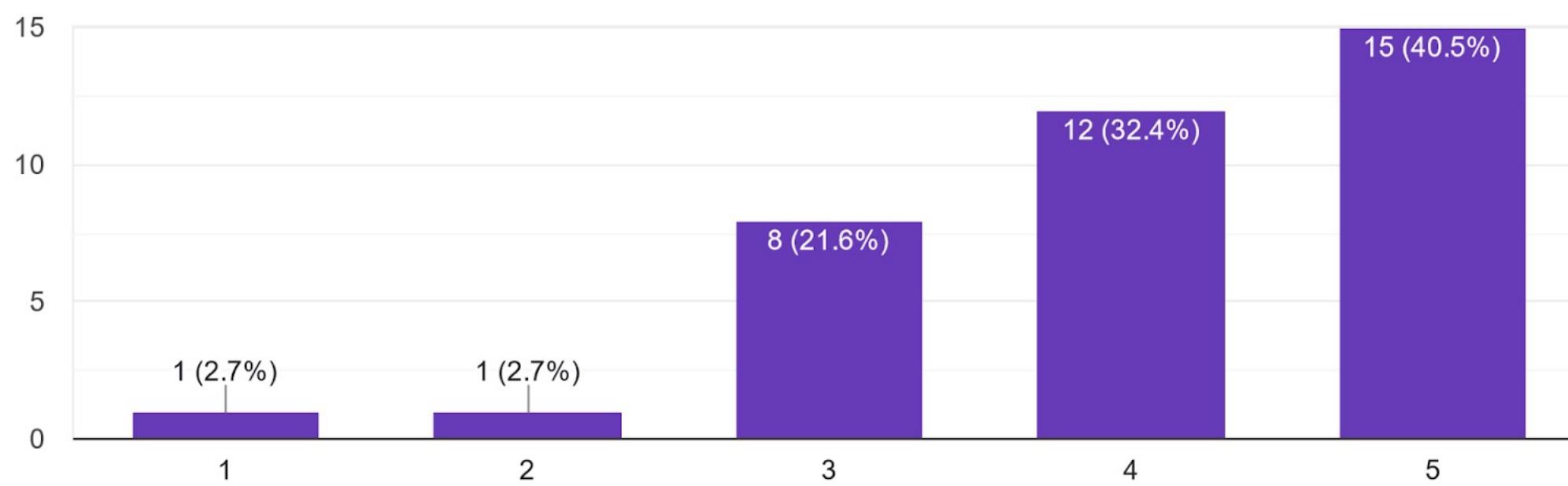
How hard is seminars' material?

37 responses



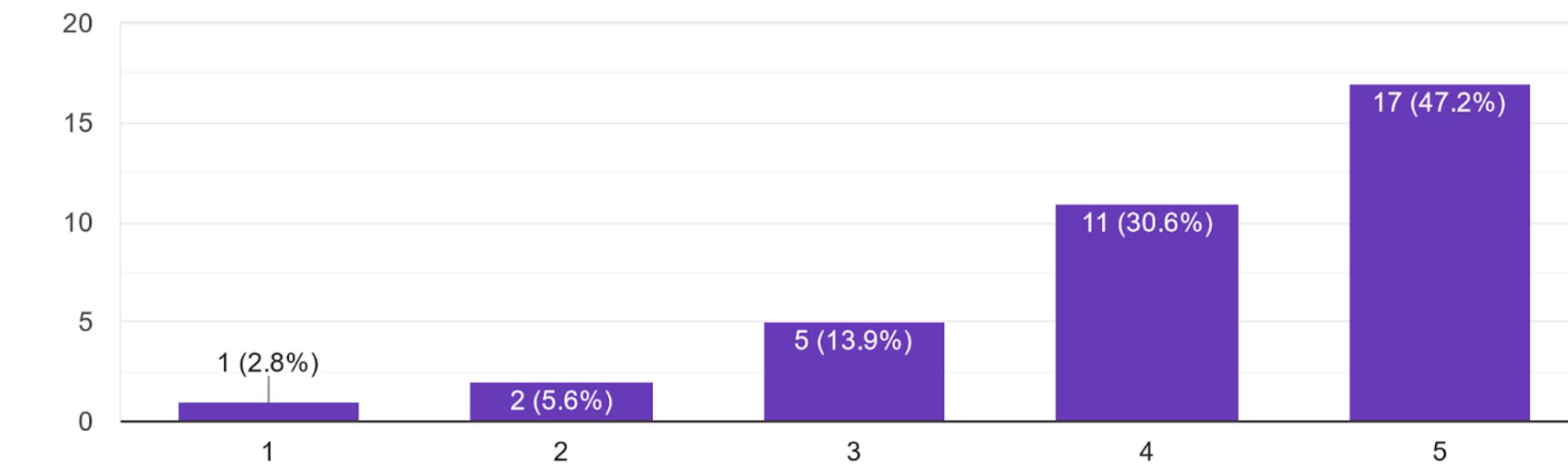
How good are the explanations during the seminars?

37 responses



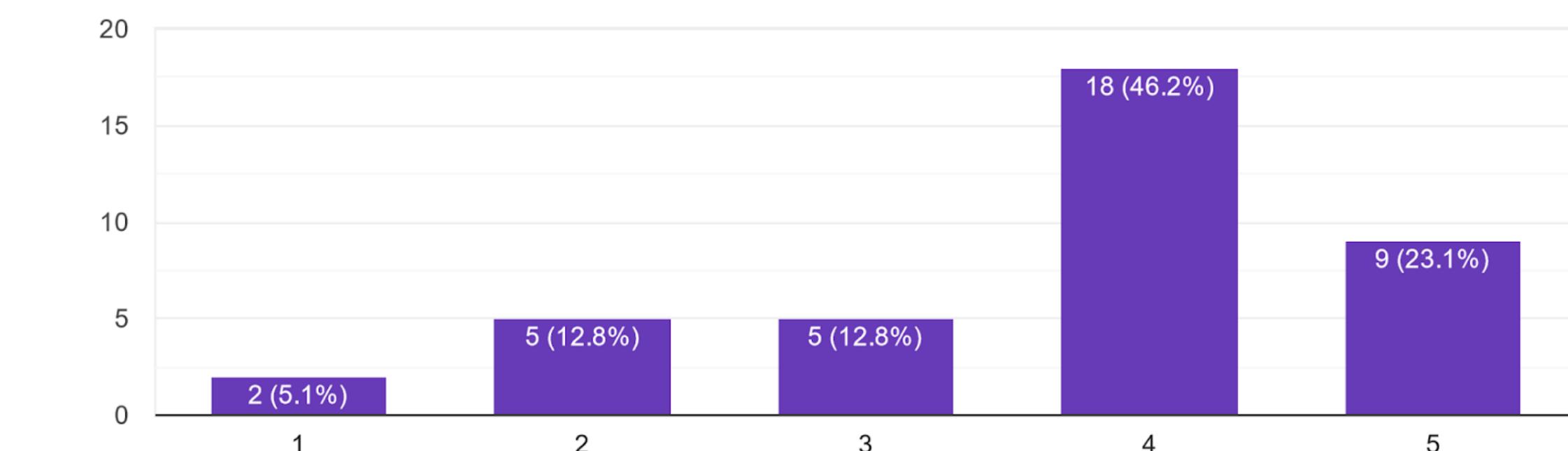
How interesting are the seminars?

36 responses



Are the home assignments instructions clear?

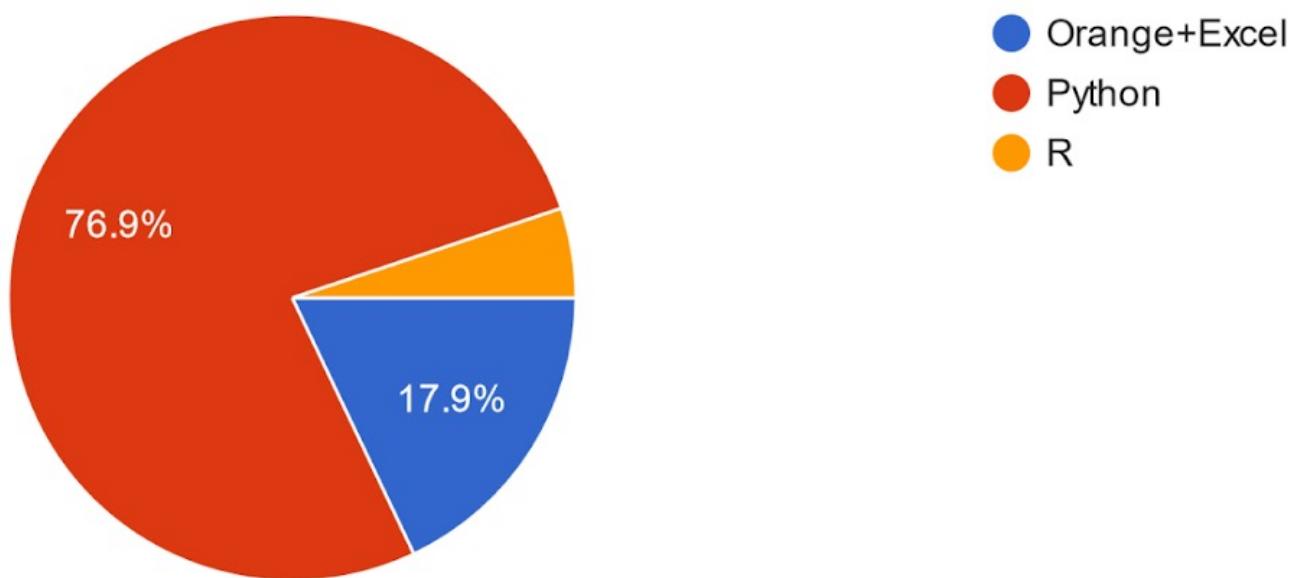
39 responses



COURSE FEEDBACK

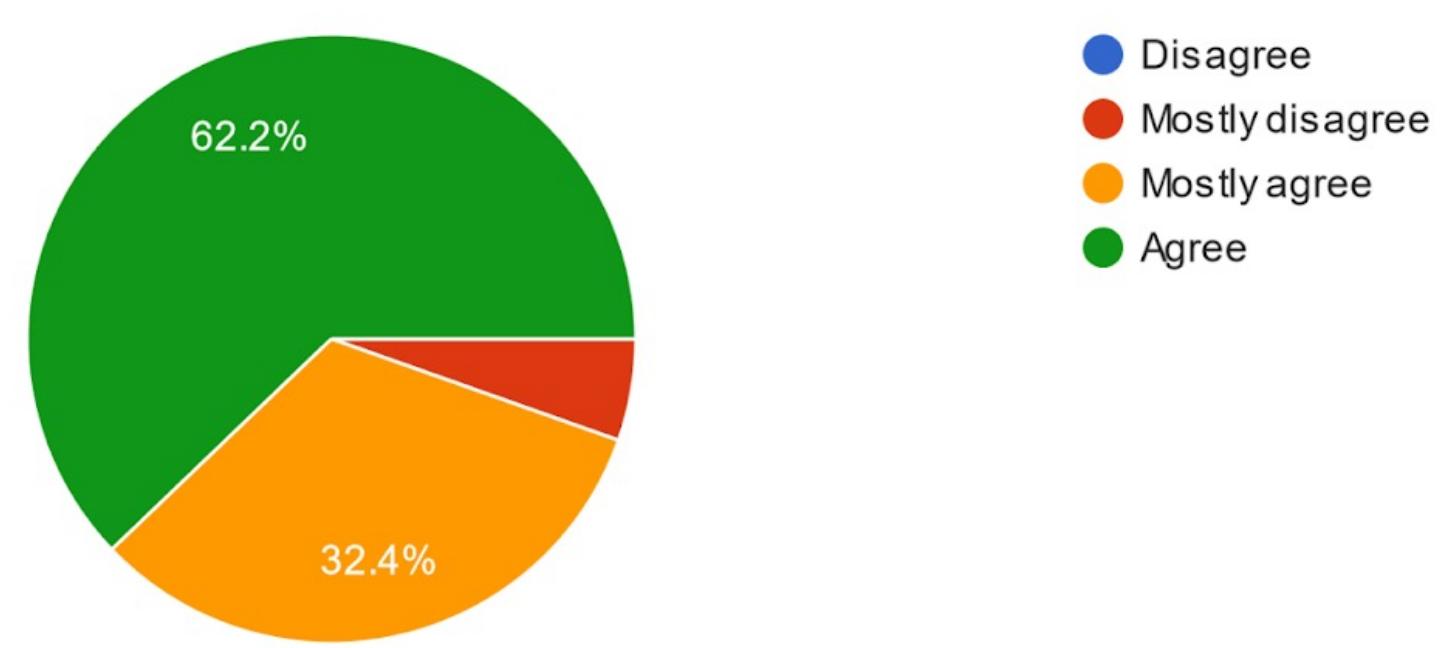
Where do you complete home assignments?

39 responses



If asked your questions were answered regularly and in time.

37 responses





**THANKS FOR ATTENDING THE COURSE AND
GOOD LUCK IN YOUR DATA SCIENCE CARRIERS!**

Q&A TIME





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