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Learning Style: On Demand

Technology: Microsoft

Difficulty: Intermediate

Course Duration: 18 Hours

Data Science Research Methods: R Edition

About this course:

Data researchers are frequently trained in the examination of information. But, the objective of data science is to deliver a decent understanding of certain issues or thoughts and create valuable models on this understanding. In view of the principle of "trash in, trash out," it is essential that the data researcher realizes how to assess the nature of the information that comes into data examination. This is particularly the situation when information is gathered explicitly for some analysis (e.g., an overview).

In this course, you will become familiar with the essentials of the exploration procedure—from developing a decent inquiry to designing great information assortment methodologies to putting outcomes in context. In spite of the fact that the data researcher may frequently have a key impact on information investigation, the whole research process must work durably for legitimate insights to be gathered.

Created as a language in view of measurable analysis and modeling, R has become a basic device for doing genuine Data Science. With this version of Data Science Research Methods, the entirety of the labs are finished with R, while the videos are tool-agnostic. In the event that you lean toward your Data Science to be finished with Python, it would be ideal if you see Data Science Research Methods: Python Edition.

Course Objective:

- Data science research design.
- Data analysis and inference.
- Survey Design and Measurement
- Planning for Analysis
- Power and Sample Size Planning
- Reliability and Validity
- Experimental data modeling and analysis.
- Bivariate and Multivariate Designs
- Between and Within Groups Experimental Designs
- Factorial Designs
- Knowledge Check

Audience:

Data Analyst

Programmers

Prerequisite:

- Fundamental information on math
- Some programming experience – R is liked.
- A willingness to learn through self-guided investigation.

Course Outline:

The Research Process

- The Research Process
- The Psychology of Providing Data
- Knowledge Check

Planning for Analysis

- Planning for Analysis
- Power and Sample Size Planning
- Research Practices
- Knowledge Check
- Lab

Research Claims

- Frequency Claims
- Association Claims
- Causal Claims
- Knowledge Check
- Lab

Measurement

- Survey Design and Measurement
- Reliability and Validity
- Knowledge Check
- Lab

Correlational and Experimental Design

- Bivariate and Multivariate Designs
- Between and Within Groups Experimental Designs
- Factorial Designs
- Knowledge Check
- Lab

Final Exam

- Exam
- Closing?