**Data Analytics**

**Foundations: Data, Data, Everywhere**

**Module - 1**

[**Data Analysis Process**](https://www.coursera.org/learn/foundations-data/supplement/nhC19/new-data-perspectives)

* Ask
* Prepare
* Process
* Analyse
* Share
* Act

[**Data Analyst Skills**](https://www.coursera.org/learn/foundations-data/supplement/kdknk/use-data-analytics-skills-in-a-business-scenario)

* Curiosity
* Understanding of Context
* Technical mindset
* Data design
* Data strategy

[**Aspects of analytical thinking**](https://www.coursera.org/learn/foundations-data/lecture/51VGu/all-about-thinking-analytically)

* Visualization
* Strategy
* Problem-orientation
* Correlation
* Big-picture and detail-oriented thinking

[**Glossary**](https://www.coursera.org/learn/foundations-data/supplement/JYuJo/glossary-terms-from-course-1-module-1)

**Module - 2**

[**Life cycle of data**](https://www.coursera.org/learn/foundations-data/supplement/DoiXy/variations-of-the-data-life-cycle)

* Plan
* Capture
* Manage
* Analyse
* Archive
* Destroy

[**Phase of Data Analysis**](https://www.coursera.org/learn/foundations-data/supplement/Yo3Cn/more-on-the-phases-of-data-analysis-and-this-program)

* Ask
* Prepare
* Process
* Analyse
* Share
* Act

**[Glossary](https://www.coursera.org/learn/foundations-data/supplement/GJkrb/glossary-terms-from-course-1-module-2)**

**Module - 3**

[**Tools**](https://www.coursera.org/learn/foundations-data/lecture/ScaU3/the-ins-and-outs-of-core-data-tools)

* Spreadsheet
* SQL
* Data Visualization

[**Glossary**](https://www.coursera.org/learn/foundations-data/supplement/kcgBr/glossary-terms-from-course-1-module-3)

**Module - 4**

[**Data analyst roles and job descriptions**](https://www.coursera.org/learn/foundations-data/supplement/VUMX2/data-analyst-roles-and-job-descriptions)

[**Glossary**](https://www.coursera.org/learn/foundations-data/supplement/U4pMm/glossary-terms-from-course-1-module-4)

**Ask Questions to Make Data-Driven Decisions**

**Module - 1**

[**Six common problem types**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/IggXC/six-common-problem-types)

* Making Prediction
* Categorizing things
* Spotting something unusual
* Identifying themes
* Discovering Connections
* Finding patterns

[**SMART Questions**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/nULlj/more-about-smart-questions)

* **S**pecific
* **M**easurable
* **A**ction-oriented
* **R**elevant
* **T**ime-bound

[**Glossary**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/Su02w/glossary-terms-from-course-2-module-1)

**Module - 2**

[**Big and small data**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/VAdzR/big-and-small-data)

[**Tools for visualizing data**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/J4LJt/tools-for-visualizing-data)

[**Design compelling dashboards**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/Jvsne/design-compelling-dashboards)

[**Glossary**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/hCBjU/glossary-terms-from-course-2-module-2)

**Module – 3**

[**Formulas in spreadsheets**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/ASfb7/quick-reference-formulas-in-spreadsheets)

[**Spreadsheet errors and fixes**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/1sjGm/more-about-spreadsheet-errors-and-fixes)

[**Functions in spreadsheets**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/EaHLl/quick-reference-functions-in-spreadsheets)

[**Glossary**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/aZ5ss/glossary-terms-from-course-2-module-3)

**Module – 4**

[**Multiple communication strategies to reach your audience**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/WmZKd/use-multiple-communication-strategies-to-reach-your-audience)

[**Limitations of data**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/gqKDr/limitations-of-data)

[**Lead great meetings**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/4H8Ic/lead-great-meetings)

[**Glossary**](https://www.coursera.org/learn/ask-questions-make-decisions/supplement/hpKBJ/glossary-terms-from-course-2-module-4)

**Prepare Data for Exploration**

**Module – 1**

[**Select the right data**](https://www.coursera.org/learn/data-preparation/supplement/7iFqv/select-the-right-data)

[**Data formats**](https://www.coursera.org/learn/data-preparation/supplement/mBSNa/data-formats-in-practice)

[**The effects of different structures**](https://www.coursera.org/learn/data-preparation/supplement/tkt9D/the-effects-of-different-structures)

[**Data modelling levels and techniques**](https://www.coursera.org/learn/data-preparation/supplement/vtp7L/data-modeling-levels-and-techniques)

[**Boolean logic**](https://www.coursera.org/learn/data-preparation/supplement/GgZMN/use-boolean-logic)

[**Glossary**](https://www.coursera.org/learn/data-preparation/supplement/A7Wol/glossary-terms-from-module-2)

**Module – 2**

**[Identify good data sources](https://www.coursera.org/learn/data-preparation/lecture/vEobk/identify-good-data-sources)**

* **R**eliable
* **O**riginal
* **C**omprehensive
* **C**urrent
* **C**ited

[**What is "bad" data?**](https://www.coursera.org/learn/data-preparation/lecture/lHirM/what-is-bad-data)

[**Glossary**](https://www.coursera.org/learn/data-preparation/supplement/HHhBb/glossary-terms)

**Module – 3**

[**Maximize databases in data analytics**](https://www.coursera.org/learn/data-preparation/supplement/uXqEX/maximize-databases-in-data-analytics)

[**Import data dynamically**](https://www.coursera.org/learn/data-preparation/supplement/2slzg/import-data-dynamically)

[**In-depth guide: SQL best practices**](https://www.coursera.org/learn/data-preparation/supplement/G5WAN/in-depth-guide-sql-best-practices)

[**Glossary**](https://www.coursera.org/learn/data-preparation/supplement/MOjTP/glossary-terms-from-module-4)

**Module – 4**

[**File organization guidelines**](https://www.coursera.org/learn/data-preparation/supplement/fLKJI/file-organization-guidelines)

[**Balance security and analytics**](https://www.coursera.org/learn/data-preparation/supplement/CmRzN/balance-security-and-analytics)

[**Glossary**](https://www.coursera.org/learn/data-preparation/supplement/BUNI2/glossary-terms-from-module-5)

**Process Data from Dirty to Clean**

**Module – 1**

[**More about data integrity and compliance**](https://www.coursera.org/learn/process-data/supplement/uWR9E/more-about-data-integrity-and-compliance)

[**Well-aligned objectives and data**](https://www.coursera.org/learn/process-data/supplement/Rhj9e/well-aligned-objectives-and-data)

[**When you find an issue with your data**](https://www.coursera.org/learn/process-data/supplement/NQPE4/when-you-find-an-issue-with-your-data)

[**Calculate sample size**](https://www.coursera.org/learn/process-data/supplement/blyd3/calculate-sample-size)

[**Sample size calculator**](https://www.coursera.org/learn/process-data/supplement/ZqcDw/sample-size-calculator)

[**All about margin of error**](https://www.coursera.org/learn/process-data/supplement/INdVZ/all-about-margin-of-error)

[**Glossary**](https://www.coursera.org/learn/process-data/supplement/CF2ej/glossary-terms-from-module-1)

**Module – 2**

[**What is dirty data?**](https://www.coursera.org/learn/process-data/supplement/b90nY/what-is-dirty-data)

[**Common data-cleaning pitfalls**](https://www.coursera.org/learn/process-data/supplement/m3iWu/common-data-cleaning-pitfalls)

[**Workflow automation**](https://www.coursera.org/learn/process-data/supplement/QRQsR/workflow-automation)

[**Develop your approach to cleaning data**](https://www.coursera.org/learn/process-data/supplement/rKHUX/develop-your-approach-to-cleaning-data)

[**Glossary**](https://www.coursera.org/learn/process-data/supplement/itzXI/glossary-terms-from-module-2)

**Module – 3**

[**How a junior data analyst uses SQL**](https://www.coursera.org/learn/process-data/supplement/GzgMb/how-a-junior-data-analyst-uses-sql)

**[Glossary](https://www.coursera.org/learn/process-data/supplement/1B9af/glossary-terms-from-module-3)**

**Module – 4**

[**Verification of data cleaning**](https://www.coursera.org/learn/process-data/supplement/Bc9rE/step-by-step-verification-of-data-cleaning)

[**Data-cleaning verification checklist**](https://www.coursera.org/learn/process-data/supplement/c9vis/data-cleaning-verification-checklist)

[**Embrace changelogs**](https://www.coursera.org/learn/process-data/supplement/FvuSF/embrace-changelogs)

[**Advanced functions for speedy data cleaning**](https://www.coursera.org/learn/process-data/supplement/PLnRS/advanced-functions-for-speedy-data-cleaning)

[**Glossary**](https://www.coursera.org/learn/process-data/supplement/JIVvr/glossary-terms-from-module-4)

**Module – 5**

[**The importance of diversity on a data analytics team**](https://www.coursera.org/learn/process-data/supplement/G6LQd/the-importance-of-diversity-on-a-data-analytics-team)

[**Add technical skills to your resume**](https://www.coursera.org/learn/process-data/supplement/8FBgn/add-technical-skills-to-your-resume)

[**Add professional skills to your resume**](https://www.coursera.org/learn/process-data/supplement/U8xZj/add-professional-skills-to-your-resume)

**Analyze Data to Answer Questions**

**Module – 1**

[**Sort and filter data to keep it organized**](https://www.coursera.org/learn/analyze-data/supplement/RSNx9/sort-and-filter-data-to-keep-it-organized)

[**Filter data with SQL**](https://www.coursera.org/learn/analyze-data/supplement/CizF2/step-by-step-filter-data-with-sql)

[**Sort datasets in spreadsheets**](https://www.coursera.org/learn/analyze-data/supplement/oafPC/step-by-step-sort-datasets-in-spreadsheets)

[**Use the SORT function in spreadsheets**](https://www.coursera.org/learn/analyze-data/supplement/fyqMb/step-by-step-use-the-sort-function-in-spreadsheets)

[**Sort and filter in Sheets and Excel**](https://www.coursera.org/learn/analyze-data/supplement/6xPhu/sort-and-filter-in-sheets-and-excel)

[**Sort data with SQL**](https://www.coursera.org/learn/analyze-data/supplement/wq3GZ/step-by-step-sort-data-with-sql)

**Module – 2**

[**Convert data in spreadsheets**](https://www.coursera.org/learn/analyze-data/supplement/H7GTe/convert-data-in-spreadsheets)

[**Transform data with SQL**](https://www.coursera.org/learn/analyze-data/supplement/HqeNj/transform-data-with-sql)

[**Import and combine data in spreadsheets and databases**](https://www.coursera.org/learn/analyze-data/supplement/QFoFj/import-and-combine-data-in-spreadsheets-and-databases)

[**Strings in spreadsheets**](https://www.coursera.org/learn/analyze-data/supplement/2Ulho/step-by-step-strings-in-spreadsheets)

[**Manipulate strings with SQL**](https://www.coursera.org/learn/analyze-data/supplement/oitMs/manipulate-strings-with-sql)

[**Advanced spreadsheet tips and tricks**](https://www.coursera.org/learn/analyze-data/supplement/6Vp5U/advanced-spreadsheet-tips-and-tricks)

[**Glossary**](https://www.coursera.org/learn/analyze-data/supplement/slcjy/glossary-terms-from-module-2)

**Module – 3**

[**VLOOKUP Core Concepts**](https://www.coursera.org/learn/analyze-data/supplement/SNmqP/vlookup-core-concepts)

[**Explore how JOINs work**](https://www.coursera.org/learn/analyze-data/supplement/PltQp/step-by-step-explore-how-joins-work)

[**The importance of aliases**](https://www.coursera.org/learn/analyze-data/supplement/qURXP/secret-identities-the-importance-of-aliases)

[**Use JOINs effectively**](https://www.coursera.org/learn/analyze-data/supplement/DBOi7/use-joins-effectively)

[**Queries within queries**](https://www.coursera.org/learn/analyze-data/supplement/SdGce/step-by-step-queries-within-queries)

[**Use subqueries to aggregate data**](https://www.coursera.org/learn/analyze-data/supplement/gtTrS/step-by-step-use-subqueries-to-aggregate-data)

[**SQL functions and subqueries: A functional friendship**](https://www.coursera.org/learn/analyze-data/supplement/SthVU/sql-functions-and-subqueries-a-functional-friendship)

[**Glossary**](https://www.coursera.org/learn/analyze-data/supplement/eXxLS/glossary-terms-from-module-3)

**Module – 4**

[**Functions with multiple conditions**](https://www.coursera.org/learn/analyze-data/supplement/s9khi/functions-with-multiple-conditions)

[**Elements of a pivot table**](https://www.coursera.org/learn/analyze-data/supplement/j6w9Z/elements-of-a-pivot-table)

[**Use pivot tables in analysis**](https://www.coursera.org/learn/analyze-data/supplement/qRo2l/use-pivot-tables-in-analysis)

[**Types of data validation**](https://www.coursera.org/learn/analyze-data/supplement/tQAED/types-of-data-validation)

[**Work with temporary tables**](https://www.coursera.org/learn/analyze-data/supplement/oGADZ/work-with-temporary-tables)

[**Glossary**](https://www.coursera.org/learn/analyze-data/supplement/0raUI/glossary-terms-from-module-4)

**Share Data Through the Art of Visualization**

**Module - 1**

[**Effective data visualizations**](https://www.coursera.org/learn/visualize-data/supplement/9xEjx/effective-data-visualizations)

[**Data grows on decision trees**](https://www.coursera.org/learn/visualize-data/supplement/XvN2U/data-grows-on-decision-trees)

[**Principles of design**](https://www.coursera.org/learn/visualize-data/supplement/Ijxn6/principles-of-design)

[**Data is beautiful**](https://www.coursera.org/learn/visualize-data/supplement/Z2Ox1/data-is-beautiful)

[**Pro tips for highlighting key information**](https://www.coursera.org/learn/visualize-data/supplement/ewNyk/pro-tips-for-highlighting-key-information)

[**Glossary**](https://www.coursera.org/learn/visualize-data/supplement/uajvO/glossary-terms-from-module-1)

**Module – 2**

[**Visualizations in spreadsheets and Tableau**](https://www.coursera.org/learn/visualize-data/supplement/bDdpK/visualizations-in-spreadsheets-and-tableau)

[**Glossary**](https://www.coursera.org/learn/visualize-data/supplement/hd0z5/glossary-terms-from-module-2)

**Data Analysis with R Programming**

**Module - 1**

[**Ways to learn about programming**](https://www.coursera.org/learn/data-analysis-r/supplement/y8zTf/ways-to-learn-about-programming)

[**From spreadsheets to SQL to R**](https://www.coursera.org/learn/data-analysis-r/supplement/jNOkl/from-spreadsheets-to-sql-to-r)

[**Glossary**](https://www.coursera.org/learn/data-analysis-r/supplement/EUfkW/glossary-terms-from-module-1)

**Module - 2**

[**Vectors and lists in R**](https://www.coursera.org/learn/data-analysis-r/supplement/7dRY6/vectors-and-lists-in-r)

[**Dates and times in R**](https://www.coursera.org/learn/data-analysis-r/supplement/g0l4l/dates-and-times-in-r)

[**Other common data structures**](https://www.coursera.org/learn/data-analysis-r/supplement/xEM9d/other-common-data-structures)

[**Logical operators and conditional statements**](https://www.coursera.org/learn/data-analysis-r/supplement/I39VT/logical-operators-and-conditional-statements)

[**Glossary**](https://www.coursera.org/learn/data-analysis-r/supplement/8yMUQ/glossary-terms-from-module-2)

**Module - 3**

[**More about tibbles**](https://www.coursera.org/learn/data-analysis-r/supplement/ir4du/more-about-tibbles)

[**Data-import basics**](https://www.coursera.org/learn/data-analysis-r/supplement/qfrIM/data-import-basics)

[**File-naming conventions**](https://www.coursera.org/learn/data-analysis-r/supplement/lehtV/file-naming-conventions)

[**More on R operators**](https://www.coursera.org/learn/data-analysis-r/supplement/n5cto/more-on-r-operators)

[**Wide to long with tidyr**](https://www.coursera.org/learn/data-analysis-r/supplement/d4BNI/wide-to-long-with-tidyr)

[**Work with biased data**](https://www.coursera.org/learn/data-analysis-r/supplement/n25ns/work-with-biased-data)

[**Glossary**](https://www.coursera.org/learn/data-analysis-r/supplement/MIGU2/glossary-terms-from-module-3)

**Module - 4**

[**Common problems when visualizing in R**](https://www.coursera.org/learn/data-analysis-r/supplement/cwdaL/common-problems-when-visualizing-in-r)

[**Aesthetic attributes**](https://www.coursera.org/learn/data-analysis-r/supplement/jvaYe/aesthetic-attributes)

[**Smoothing**](https://www.coursera.org/learn/data-analysis-r/supplement/06qO1/smoothing)