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Data Analytics Practice Questions PDF

This page offers Uncodemy's data analytics practice questions: twelve open tasks across Excel, SQL, Python, statistics and dashboards. Each task states the situation, gives a hint and explains how to check your own answer, so you can practise without an answer key in front of you.

Key takeaways

- Each task has a situation, a hint and a way to check your work.
- Tasks cover Excel, SQL, Python, statistics and dashboards.
- Work on a copy of any data and keep the original untouched.
- Checking your result in two ways is a habit employers value.
- Attempt every task before reading the hint.

What is data analytics practice questions?

Data analytics practice questions are hands-on tasks that make you apply a skill to a small business situation, such as cleaning a column, summarising sales or choosing a chart, instead of recalling a definition.

How should I use these practice questions?

Read the task, try it for ten minutes without help, then read the hint. Always check the answer in a second way, for example with a different formula or a hand count on a sample. Use made-up or public data, never confidential company data.

What are the Excel tasks?

Task 1: revenue by city. A sheet has columns City, Product, Quantity and Price. Build revenue per city. *Hint:* add a Revenue column, then a PivotTable. *Check:* the PivotTable grand total should equal the sum of the Revenue column.

Task 2: flag late payments. Each invoice has a due date, a paid date and a status. Mark invoices paid after the due date. *Hint:* compare the two dates with IF. *Check:* count flagged rows with COUNTIF and spot-check five rows by hand.

Task 3: clean names. Names arrive in mixed case with extra spaces. Standardise them. *Hint:* TRIM and PROPER. *Check:* no cell should start or end with a space.

What are the SQL tasks?

Task 4: top customers. Find the three customers with the highest total order value. *Hint:* join, group and order with a limit. *Check:* the sum of all customers' totals should equal the total of the orders table.

Task 5: customers without orders. List customers who never ordered. *Hint:* a left join and a null test, or NOT EXISTS. *Check:* the count plus customers with orders equals total customers.

Task 6: month on month change. Show monthly revenue and its change from the previous month. *Hint:* a window function with LAG. *Check:* the first month should have no previous value.

What are the Python tasks?

Task 7: load and summarise. Load a CSV, show missing values per column and the mean of a numeric column. *Hint:* read_csv, isna and describe. *Check:* the row count equals the file's row count minus the header.

Task 8: group and plot. Find average sales per category and draw a bar chart. *Hint:* groupby and a bar plot. *Check:* the number of bars equals the number of categories.

Task 9: fix dates. A column has dates as text in two formats. Convert it to a real date column. *Hint:* to_datetime with a format or errors set to coerce. *Check:* count how many values failed to convert.

What are the statistics tasks?

Task 10: median or mean? Monthly incomes in a small sample include one very large value. Which average would you report and why? *Hint:* think about outliers. *Check:* compute both and compare.

Task 11: reading an A/B test. Variant B has a 4.2 percent conversion against 4.0 percent for A, with a small sample. What do you say? *Hint:* difference may be chance; consider sample size and a test. *Check:* write a sentence that includes the words "not enough evidence" or "evidence of a difference" and justify it.

What is the dashboard task?

Task 12: design a one-page dashboard. A manager wants to track weekly sales. List the four numbers, two charts and two filters you would include, and why. *Hint:* start from decisions, not data. *Check:* can every item answer a question the manager actually asks?

How do I track progress?

Make a table with the task number, date, time taken, whether you needed the hint and what you learned. Repeat tasks after a week. If you solve a task faster without a hint, the skill is sticking.

How do I check my own work without an answer key?

Use three checks. **Reconcile:** totals from two routes should match, such as a PivotTable and a SUMIFS. **Sample:** pick five rows and compute the result by hand. **Reasonableness:** ask whether the

answer makes sense, for example whether a percentage is between 0 and 100. These checks catch most errors and are exactly what experienced analysts do.

How can I make the tasks harder?

Add a twist after solving each task. Use a larger file, add missing values, change the question slightly or ask for a chart as well. You can also swap tools: solve the same task in SQL and then in Python and compare the answers. Matching results in two tools is strong evidence that you are right.

How do I turn practice into portfolio work?

Pick two tasks that you enjoyed, expand them with a real dataset and write a short explanation of the question, method and result. Those two pieces, shown clearly, are more useful in an interview than a long list of completed exercises.

Frequently asked questions

What do the data analytics practice questions cover?

Twelve open tasks across Excel, SQL, Python, statistics and dashboard design, each with a hint and a way to check your answer.

Are answers included?

The page gives hints and checks rather than full solutions, so you practise reasoning instead of copying.

Where can I get data to practise?

Use public datasets or create a small made-up sheet. Never use confidential company data.

How is this different from the MCQ page?

The MCQ page has multiple-choice items. These are open tasks where you build or compute something.

How often should I practise?

A few tasks a day with a weekly review works better than one long session.

Sources and further reading

- Python documentation
- pandas documentation
- SQLite documentation

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