

Data Connections - 23%

- **Understand how to connect to Tableau Server** https://help.tableau.com/current/pro/desktop/en-us/examples_tableauserver.htm
- **Understand Performance Optimization** – most of these performance enhancements added in the 9.0 version of Tableau and are mentioned in the [9.0 preview: Query performance improvements](#) blog post. More detail can be found in [Designing Efficient Workbooks](#).
 - **Parallel query** <https://kb.tableau.com/articles/howto/Configuring-Parallel-Queries-in-Tableau-Desktop> [9.0 preview: Query performance improvements](#)
 - **Data engine vectorization** <https://community.tableau.com/thread/211729>
 - **Parallel aggregation** In [Designing Efficient Workbooks](#) we read, “Tableau 9 data engine will run queries faster by using multiple cores where possible. The data engine can now run aggregations in parallel, splitting the work across multiple cores. By default, the maximum degree of parallelism is (number of available logical processors) / 2. This means that query operations on data extracts can run up to N times faster in Tableau 9 (where N is the number of cores in the machine).”
 - **External query caching** [9.0 preview: Query performance improvements](#)
 - **Query fusion** [9.0 preview: Query performance improvements](#)
- **Understand how to use Automatic & Custom Split** <https://help.tableau.com/current/pro/desktop/en-us/split.htm>
- **Understand how to join tables from single and multiple databases** https://help.tableau.com/current/pro/desktop/en-us/joining_tables.htm
- **Understand how to use Data Preparation**
 - **Blending** https://help.tableau.com/current/pro/desktop/en-us/multiple_connections.htm
 - **Metadata Grid** https://help.tableau.com/current/pro/desktop/en-us/environment_datasource_page.htm#Metadata
 - **Pivot** <https://help.tableau.com/current/pro/desktop/en-us/pivot.htm>
 - **Union** <https://help.tableau.com/current/pro/desktop/en-us/union.htm>
 - **Data Interpreter** https://help.tableau.com/current/pro/desktop/en-us/data_interpreter.htm
- **Understand connection options**

- **Understand how to connect to different file types**

Text: https://help.tableau.com/current/pro/desktop/en-us/examples_text.htm

Excel: https://help.tableau.com/current/pro/desktop/en-us/examples_excel.htm

JSON: https://help.tableau.com/current/pro/desktop/en-us/examples_json.htm

Other databases and file types: https://help.tableau.com/current/pro/desktop/en-us/exampleconnections_overview.htm

- **Understand data extract capabilities** https://help.tableau.com/current/pro/desktop/en-us/extracting_data.htm

- **Understand Shadow extracts** – Tableau documentation explains, “Tableau creates and saves a shadow extract (.ttde files) in order to load data more quickly.” More here <https://kb.tableau.com/articles/issue/low-disk-space-because-of-ttde-files>

Organizing & Simplifying Data - 10%

- **Understand how to:**

- **Filter data** <https://help.tableau.com/current/pro/desktop/en-us/filtering.htm>

- **Sort data** https://help.tableau.com/current/pro/desktop/en-us/sortgroup_sorting_computed_howto.htm

- **Build groups** https://help.tableau.com/current/pro/desktop/en-us/sortgroup_groups_creating.htm

- **Build hierarchies** https://help.tableau.com/current/pro/desktop/en-us/qs_hierarchies.htm

- **Build sets** https://help.tableau.com/current/pro/desktop/en-us/sortgroup_sets_create.htm

Field & Chart Types - 15%

- **Understand discrete v. continuous** https://help.tableau.com/current/pro/desktop/en-us/datafields_typesandroles.htm#blue-versus-green-fields

- **Understand measure names and measure values** https://help.tableau.com/current/pro/desktop/en-us/datafields_understanddatawindow_meavalues.htm

- **Understand generated fields** https://help.tableau.com/current/pro/desktop/en-us/datafields_understanddatawindow.htm#fields-that-tableau-automatically-creates

- **Understand how and when to build:**

- **Histograms** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_histogram.htm
- **Heat maps** https://help.tableau.com/v10.2/pro/desktop/en-us/buildexamples_heatmap.html and https://help.tableau.com/current/pro/desktop/en-us/buildexamples_density.htm
- **Tree maps** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_treemap.htm
- **Bullet graphs** https://help.tableau.com/current/pro/desktop/en-us/qs_bullet_graphs.htm
- **Combined Axis Charts** https://help.tableau.com/current/pro/desktop/en-us/qs_combo_charts.htm
- **Dual Axis Charts** https://www.youtube.com/watch?time_continue=56&v=ImmeBu0mu34&feature=emb_logo
- **Scatter Plots** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_scatter.htm
- **Data Highlighter** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_highlight.htm
- **Cross tabs** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_text.htm
- **Motion charts** <https://data-flair.training/blogs/tableau-motion-chart/>
- **Bar in bar charts** https://www.youtube.com/watch?v=-qXfjweVugQ&feature=emb_logo
- **Box plots** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_boxplot.htm
- **Gantt Bar Charts** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_gantt.htm
- **Paretos** <https://help.tableau.com/current/pro/desktop/en-us/pareto.htm>
- **Sparklines** <https://kb.tableau.com/articles/howto/creating-sparklines>
- **Understand how to effectively use titles, captions and tooltips** https://help.tableau.com/current/pro/desktop/en-us/formatting_specific_titlecaption.htm
- **Understand how to edit axes** https://help.tableau.com/current/pro/desktop/en-us/formatting_editaxes.htm
- **Understand mark labels and annotations** https://help.tableau.com/current/pro/desktop/en-us/annotations_marklabels_showhideworksheet.htm and https://help.tableau.com/current/pro/desktop/en-us/annotations_annotations_add.htm

Calculations - 17%

- Understand how to:

- **Manipulate string and date calculations** https://help.tableau.com/current/pro/desktop/en-us/functions_functions_string.htm and https://help.tableau.com/current/pro/desktop/en-us/functions_functions_date.htm
- **Create quick table calculations** https://help.tableau.com/current/pro/desktop/en-us/calculations_tablecalculations_quick.htm
- **Use LOD calculations**; types of LOD calculations
https://help.tableau.com/current/pro/desktop/en-us/calculations_calculatedfields_lod.htm
https://help.tableau.com/current/pro/desktop/en-us/calculations_calculatedfields_lod.htm#types-of-lod-expressions
- **Use Ad-hoc calculations** https://help.tableau.com/current/pro/desktop/en-us/calculations_calculatedfields_adhoc.htm
- **Work with aggregation options** https://help.tableau.com/current/pro/desktop/en-us/calculations_tablecalculations.htm
- **Build logic statements** https://help.tableau.com/current/pro/desktop/en-us/functions_functions_logical.htm
- **Build arithmetic calculations** https://help.tableau.com/current/pro/desktop/en-us/functions_functions_number.htm
- **Build grand totals and sub-totals** https://help.tableau.com/current/pro/desktop/en-us/calculations_totals_grandtotal_turnon.htm
- **Use calculations in join clauses** https://help.tableau.com/current/pro/desktop/en-us/joining_tables.htm#use-calculations-to-resolve-mismatches-between-fields-in-a-join

Mapping - 9%

- Understand how to use:

- **Pan & Zoom** https://help.tableau.com/current/pro/desktop/en-us/inspectdata_pan_zoom.htm
- **Filtering** <https://kb.tableau.com/articles/howto/zooming-in-on-map-selection>
- **Map layering** https://help.tableau.com/current/pro/desktop/en-us/maps_options.htm
- **Custom territories** https://help.tableau.com/current/pro/desktop/en-us/maps_custom_territories.htm

- **Lasso & Radial selection** https://help.tableau.com/current/pro/desktop/en-us/maps_measure_distance.htm and <https://kb.tableau.com/articles/issue/distance-label-does-not-display-when-using-radial-selection-tool> and https://help.tableau.com/current/pro/desktop/en-us/inspectdata_selectiontools.htm
- **Understand how to modify locations within Tableau** https://help.tableau.com/current/pro/desktop/en-us/maps_editlocation.htm
- **Understand how to import and manage custom geocoding** https://help.tableau.com/current/pro/desktop/en-us/custom_geocoding.htm
- **Understand how to use a background image map** <https://help.tableau.com/current/pro/desktop/en-us/bkimages.htm>
- **Understand how to use Geographic search** https://help.tableau.com/current/pro/desktop/en-us/maps_mapsearch.htm
- **Understand how to connect to spatial files** https://help.tableau.com/current/pro/desktop/en-us/examples_spatial_files.htm

Analytics - 15%

- **Understand how to use:**
 - **Reference Lines** https://help.tableau.com/current/pro/desktop/en-us/reference_lines.htm#add-a-reference-line
 - **Reference Bands** https://help.tableau.com/current/pro/desktop/en-us/reference_lines.htm#add-reference-bands
 - **Trend Lines** https://help.tableau.com/current/pro/desktop/en-us/trendlines_add.htm
 - **Trend Model** https://help.tableau.com/current/pro/desktop/en-us/trendlines_add.htm#trend-line-model-terms
 - **Forecasting** <https://help.tableau.com/current/pro/desktop/en-us/forecasting.htm>
 - **Drag & Drop Analytics** https://help.tableau.com/current/pro/desktop/en-us/environs_workspace_analytics_pane.htm and <https://www.tableau.com/about/blog/2015/1/analytics-flow-36387>
 - **Box Plot** https://help.tableau.com/current/pro/desktop/en-us/buildexamples_boxplot.htm and https://help.tableau.com/current/pro/desktop/en-us/reference_lines.htm#add-a-box-plot
 - **Reference distributions** https://help.tableau.com/current/pro/desktop/en-us/reference_lines.htm#add-reference-distributions

- **Statistical summary card** https://help.tableau.com/current/pro/desktop/en-us/inspectdata_summary.htm
- **Instant Analytics** <https://www.tableau.com/about/blog/2015/1/analytics-flow-36387>

Dashboards - 11%

- **Understand publishing & sharing options** <https://kb.tableau.com/articles/howto/sharing-workbooks-without-tableau-desktop>
- **Understand how to build dashboards** <https://help.tableau.com/v2019.2/guides/get-started-tutorial/en-us/get-started-tutorial-build.htm>
- **Understand dashboard actions** https://help.tableau.com/current/pro/desktop/en-us/actions_dashboards.htm
- **Understand Device Designer** https://help.tableau.com/current/pro/desktop/en-us/dashboards_dsd_create.htm
- **Understand how to create a drill down report** <https://help.tableau.com/current/guides/get-started-tutorial/en-us/get-started-tutorial-drilldown.htm>
- **Understand how to utilize visual best practices for dashboard design** <https://www.tableau.com/learn/whitepapers/tableau-visual-guidebook>