An Introduction to Data Visualization with Tableau

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An Introduction to Data Visualization with Tableau

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Technology and Communications Coordinator
What is Data Visualization?

Image Credit: https://www.seas.harvard.edu/sites/default/files/images/news/visualizations.jpg
Build with a Few Clicks

Connect to a Data Source & Import Data

Create Visualization(s)

Share
Tableau Public

• Create a Free Account
• 10 GB Available for Visualizations
<table>
<thead>
<tr>
<th></th>
<th>Tableau Desktop</th>
<th>Tableau Server</th>
<th>Tableau Online</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Edition</strong></td>
<td>Personal Edition</td>
<td>Professional Edition</td>
<td>Fully Hosted*</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>$35 USD/user/month (billed annually)</td>
<td>$70 USD/user/month (billed annually)</td>
<td>$42 USD/user/month (billed annually)</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>Explore and analyze data with</td>
<td>Explore and analyze data with</td>
<td>Deploy on-premises or on public</td>
</tr>
<tr>
<td></td>
<td>advanced analytics</td>
<td>advanced analytics</td>
<td>cloud with Amazon Web Services,</td>
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<tr>
<td></td>
<td>Connect to files like Excel and</td>
<td>Connect to hundreds of data sources—</td>
<td>Microsoft Azure, and Google Cloud</td>
</tr>
<tr>
<td></td>
<td>Google Sheets</td>
<td>from files to databases, web</td>
<td>Cloud Platform</td>
</tr>
<tr>
<td></td>
<td>Create visualizations, dashboards,</td>
<td>applications, and more</td>
<td>Centrally manage data sources and</td>
</tr>
<tr>
<td></td>
<td>and stories</td>
<td></td>
<td>workbooks</td>
</tr>
<tr>
<td><strong>Learn More</strong></td>
<td>[LINK]</td>
<td>[LINK]</td>
<td>[LINK]</td>
</tr>
</tbody>
</table>

Tableau Online is the SaaS form of Tableau Server with maintenance, upgrades, and security fully managed by Tableau.
Hands On Demonstration

- Pokemon Index
- Cat vs Dog Popularity in the US

NNLM Handouts: [Cool Creative Communications: Dazzling Data Visualization](https://public.tableau.com/en-us/s/resources)
<table>
<thead>
<tr>
<th>Join Type</th>
<th>Result</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner</td>
<td>When you use an inner join to combine tables, the result is a table that contains values that have matches in both tables.</td>
<td><img src="https://onlinehelp.tableau.com/current/pro/desktop/en-us/joining_tables.html" alt="Inner Join Diagram" /></td>
</tr>
<tr>
<td>Left</td>
<td>When you use a left join to combine tables, the result is a table that contains all values from the left table and corresponding matches from the right table. When a value in the left table doesn't have a corresponding match in the right table, you see a null value in the data grid.</td>
<td><img src="https://onlinehelp.tableau.com/current/pro/desktop/en-us/joining_tables.html" alt="Left Join Diagram" /></td>
</tr>
<tr>
<td>Right</td>
<td>When you use a right join to combine tables, the result is a table that contains all values from the right table and corresponding matches from the left table. When a value in the right table doesn't have a corresponding match in the left table, you see a null value in the data grid.</td>
<td><img src="https://onlinehelp.tableau.com/current/pro/desktop/en-us/joining_tables.html" alt="Right Join Diagram" /></td>
</tr>
<tr>
<td>Full Outer</td>
<td>When you use a full outer join to combine tables, the result is a table that contains all values from both tables. When a value from either table doesn't have a match with the other table, you see a null value in the data grid.</td>
<td><img src="https://onlinehelp.tableau.com/current/pro/desktop/en-us/joining_tables.html" alt="Full Outer Join Diagram" /></td>
</tr>
<tr>
<td>Union</td>
<td>Though union is not a type of join, union is another method for combining two or more tables by appending rows of data from one table to another. Ideally, the tables that you union have the same number of fields, and those fields have matching names and data types.</td>
<td><img src="https://onlinehelp.tableau.com/current/pro/desktop/en-us/joining_tables.html" alt="Union Diagram" /></td>
</tr>
</tbody>
</table>

Continue Learning Tableau

- Coursera:
  - Data Visualization and Communication with Tableau (Duke University)
  - Data Visualization with Tableau Specialization (UC Davis)
- Lynda.com:
  - Tableau Training and Tutorials
- Tableau
  - Free Tableau Training Videos
  - Free Tableau Public Training Video and Free Live Trainings
Tableau Communities

- Tableau Help
  - Create Custom Fields with Calculations

- Tableau Community
http://www.worldcat.org/oclc/871665104

http://www.worldcat.org/oclc/847034209
Thanks!

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