An Introduction to Data Visualization with Tableau

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An Introduction to Data Visualization with Tableau

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What is Data Visualization?

Image Credit: https://www.seas.harvard.edu/sites/default/files/images/news/visualizations.jpg
Communication  

Information Science  

Data Visualization  

Design
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>Tableau Desktop</th>
<th>Tableau Server</th>
<th>Tableau Online</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Edition</strong></td>
<td><strong>Professional Edition</strong></td>
<td><strong>Fully Hosted</strong></td>
</tr>
<tr>
<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>
</tbody>
</table>

**Tableau Desktop**
- Explore and analyze data with advanced analytics
- Connect to files like Excel and Google Sheets
- Create visualizations, dashboards, and stories

**Tableau Server**
- On-Premises or Public Cloud*
- Deploy on-premises or on public cloud with Amazon Web Services, Microsoft Azure, and Google Cloud Platform
- Centrally manage data sources and workbooks
- Explore analytics from any browser or mobile device
- Author in your browser and subscribe to workbook updates

**Tableau Online**
- Fully Hosted*
- Tableau Online is the SaaS form of Tableau Server with maintenance, upgrades, and security fully managed by Tableau
- Centrally manage data sources and workbooks
- Explore analytics from any browser or mobile device
- Author on the web and subscribe to workbook updates

[START FREE TRIAL](https://www.tableau.com/solutions/education-higher-ed-analytics)
Hands On Demonstration

- Pokemon Index
- Cat vs Dog Popularity in the US

- NNLM Handouts: Cool Creative Communications: Dazzling Data Visualization
Medicare Cost Overview

Average Cost by Providers

Average Cost by State and Condition

Infectious Diseases
Musculoskeletal System
Digestive System
Respiratory
Circulatory System
Hepatobiliary System
Kidney and Urinary Tract
Nervous System
Mental Diseases
Skin and Tissue
Injury and Poisonings
Blood Diseases
Endocrine and Metabolic
Alcohol and Drug Use
Health Factors
Ear, Nose, Throat
<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></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></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></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></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></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
Reference Materials

http://www.worldcat.org/oclc/965325278

http://www.worldcat.org/oclc/910914494
http://www.worldcat.org/oclc/871665104

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

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