1. Final

Use Case

CBP Style Guide 1.0	New
• Tables provide customizable views of tabular data with features including **sorting** and **managing columns**. • Tables are useful when a collection of data **requires vertical alignment through columns** for quick scanning and discovery of information, as well as for data that with many attributes that **requires sorting, grouping, and a user customizable display.**	• Present many data points sequentially • To **easily compare data** in order for users to understand data quickly & efficiently

Best Practice

CBP Style Guide 1.0	New
N/A	• **Right-align** data that involves quantities (e.g., counts, dollars, percentages) • **Left-align** data that are nominal values or are non-numeric (e.g., room numbers, zip codes, names) • When there is no data to display, **use "--" or some text** to indicate that the empty state is not a technical bug/glitch • For **non tabular data**, consider **using definition or hierarchical lists**

	Consider using graphs/charts or cards for **smaller quantity** **Only use tables for tabular data**, and not for formatting purposes

Accessibility

CBP Style Guide 1.0	New
- Simple tables can have **two levels of headers**. **Each header cell should have scope="col" or scope="row".** - Complex tables are tables with more than two levels of headers. **Each header should be given a unique id** and **each data cell should have a headers attribute** with each related header cell's id listed. - When adding **a title to a table, include it in a <caption> tag** inside of the <table> element.	- No column header cells should be blank - Use **<th>** for table headers

2. External Design System Study

Polaris by Shopify

Use Case

- Present many data points sequentially

- Organize/compare complex data

- Values across columns/rows use different units of measurements

Best Practice

- Table "stacks" data with smaller screens

- Allow for filtering & ordering when comparison is not a priority

- Include unit of measurement in header (if applicable) to reduce repetition in the columns

- Right-align data that involves quantities
  (e.g., counts, dollars, percentages)

- Left-align data that are nominal values or are non-numeric
  (e.g., room numbers, zip codes, names)

- Align headers with related data

- Implement fixed-width columns, and expand to full-width at 600px width or less

- Use sentence-case (First word capitalized, rest lowercase)

COLUMN 1
Cell A1
COLUMN 2
Cell A2
COLUMN 3
Cell A3
COLUMN 1
Cell B1
COLUMN 2
Cell B2
COLUMN 3
Cell B3

Accessibility

- Use **<th>** for table headers

- Only use tables for tabular data, and not for formatting purposes

Ant Design by Ant Financial

Use Case

- Used in conjunction with other interface elements such as sorting, searching, and filtering

- Easy to compare data, user understands data quickly & efficiently

Best Practice

- When there is no data to display, use "--" or some text to indicate that the empty state is not a technical bug/glitch

Accessibility

- Tag headers with "#" for easy tabbing for user documentation (internal)

Collapse

Collapse guides the user to obtain information in a progressive manner by folding and arranging information, so that the interface is kept clean and the space is effectively utilized.

United States Web Design System

Use Case

- Displaying tabular/statistical data

Best Practice

- Minimal visual styling to keep table focused on data

- For non tabular data, consider using definition or hierarchical lists

Accessibility

- Headers should be tagged scope="col"/"row"

- Complex tables are tables with more than two levels of headers. Each header should be given a unique id and each data cell should have a headers attribute with each related header cell's id listed.

- Title of table should include a <caption> tag inside of the <table> element

GOV.UK Design System

Use Case

- Compare information in rows/columns

Best Practice

- Do not use for layout purposes, use grid instead

Accessibility

- Use <caption> on a table to describe what the table is/used for

- Use "scope" to help distinguish between row and column

Canvas by Workday

Use Case

- Displaying sets of repeating data with the same structure

- For data that can easily be scanned & compared

- For small sets of data, use a different layout

Best Practice

- One value per cell, field sets are discouraged

- Sub-grids are discouraged

Accessibility

- No column header cells should be blank

3. Articles

11 Data Table Design Guidelines

- Implement **Fixed header** if # rows > 30
- If # rows > 30, put pagination on top and bottom to reduce scrolling
- **Fixed Column:** Add drop shadow & vertical divider on the right side of the column to indicate that table can be scrolled vertically
- **Customizable Columns** for personalized experience- lets user choose what data they want to see
- Avoid Serif Fonts- they are more "attention-grabbing"
- Change color/highlight element in addition to underline for links

Design Better Data Tables

- For large datasets, use zebra stripe/line divisions.
  - **Zebra Stripe:** Good for keeping track horizontally
  - **Line Division:** Good for vertical/long datasets for users to keep their place
  - **None:** Good for short datasets- no distractions
- Customizable data density
- For implementing additional actions, use **hover action**
- Expandable Rows
- Use Modal for quick view feature

Designing Tables for Reusability

Data Tables Design Basics

Modern Enterprise UI design — Part 1: Tables

Lessons from building mobile-friendly, accessible data tables

4. Miscellaneous notes I took from various articles that are more specific

Use Case Considerations

1. What devices will be used to view the table?
2. Do we have control over the data that will be displayed or is it configurable by the user?
3. How can we aid quick scanning of the table data?- If the table will contain a lot of data, how can we make it easy for users to find the data they need?
4. Will rows have shared actions, such as edit or delete?
5. Could table cells contain lots of data, addresses or even paragraphs of text?

Columns / Rows

- Must have at least 3 column headers.
- If there are more than 30 rows, pagination must be implemented.

Typography

- Avoid Serif fonts (currently not an issue since default is Roboto/sans-serif)

Interaction

- Hover effect for any interactable components (i.e., button)
- For hyperlinks, change initial color & change color/opacity while hovering over link.