

# RespTable: Lightweight Responsive Tables

Information Architecture and Web Usability  
Group 3  
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# Responsive Table Libraries

- Display tables across different screen sizes.
- Enhance user experience by using responsive patterns.
- Using libraries saves time in development.
- Libraries have well-tested designs and layouts.
- Consistent usability across the application.

# Comparing Responsive Table Libraries

## Larger Libraries:

- Big Package size.
- A lot of features.
- Extensive Documentation.
- Complex feature activation.
- TanStack Table, AG Grid, Handsontable.

## Compact Libraries:

- Lack of features.
- Small documentation.
- Hard to extend.
- Grid.js, Tablesaw, JSTable.

# Our Project Vision

- A lightweight, responsive table library for HTML that ensures tables look great on all devices.
- Designed to integrate seamlessly with other libraries or frameworks (e.g. React, Vue, etc.).
- Open-source for collaboration, contribution, and adoption.
- Available for everyone to use.

# Pattern Showcase

## Stacking

Name	Manufacturer	Type	Calories
100%_Bran	N	cold	70
100%_Natural_Bran	Q	cold	120
All-Bran	K	cold	70
All-Bran_with_Extra_Fiber	K	cold	50
Almond_Delight	R	cold	110
Apple_Cinnamon_Cheerios	G	cold	110
Apple_Jacks	K	cold	110
Basic_4	G	cold	130
Bran_Chex	R	cold	90
Bran_Flakes	P	cold	90
Cap'n'Crunch	Q	cold	120
Cheerios	G	cold	110
Cinnamon_Toast_Crunch	G	cold	120
Clusters	G	cold	110
Cocoa_Puffs	G	cold	110
Corn_Chex	R	cold	110

## Filtering

Search...

Name	Manufacturer	Type	Calories
100%_Bran	N	cold	70
100%_Natural_Bran	Q	cold	120
All-Bran	K	cold	70
All-Bran_with_Extra_Fiber	K	cold	50
Almond_Delight	R	cold	110
Apple_Cinnamon_Cheerios	G	cold	110
Apple_Jacks	K	cold	110
Basic_4	G	cold	130
Bran_Chex	R	cold	90
Bran_Flakes	P	cold	90
Cap'n'Crunch	Q	cold	120
Cheerios	G	cold	110
Cinnamon_Toast_Crunch	G	cold	120
Clusters	G	cold	110

## Sorting

Name	Manufacturer	Type	Calories
100%_Bran	N	cold	70
100%_Natural_Bran	Q	cold	120
All-Bran	K	cold	70
All-Bran_with_Extra_Fiber	K	cold	50
Almond_Delight	R	cold	110
Apple_Cinnamon_Cheerios	G	cold	110
Apple_Jacks	K	cold	110
Basic_4	G	cold	130
Bran_Chex	R	cold	90
Bran_Flakes	P	cold	90
Cap'n'Crunch	Q	cold	120
Cheerios	G	cold	110
Cinnamon_Toast_Crunch	G	cold	120
Clusters	G	cold	110

# Goals

- *Responsiveness*: Tables should adapt to different sizes of screens.
- *Framework Agnostic*: Work with any CSS library or JavaScript framework.
- *Lightweight*: Small file size (24 kB), minimal configuration.
- *Extensible*: Allow developers to add custom styles or behaviors.

# Table Patterns

## Responsive Patterns:

- *Stacking* ✓
- *Squishing* ✓
- *Flipping* ✓
- *Horizontal Scrolling* ✓

## Good Practice Patterns:

- *Sorting* ✓
- *Filtering* ✓
- *Fixed Header* ✓
- *Zebra Stripes* ✓
- *Easy Column Alignment* ✓

# Responsive Table Patterns for Tables

- *Stacking*: Convert rows into vertical stacks.
- *Squishing*: Fitting the table into smaller spaces by reducing its size.
- *Flipping*: Transposing the table by turning columns into rows and vice versa.
- *Horizontal Scrolling*: Adding a horizontal scrollbar to the table.



# Good Practice Patterns for Tables

- *Sorting*: Rearrange rows by clicking on the column header to sort the values in ascending/descending order.
- *Filtering*: Display only rows that match a filter criteria.
- *Fixed Header*: Keep the header row visible while scrolling through the table.
- *Zebra Stripes*: Alternating background color to enhance row visibility.
- *Easy Column Alignment*: Keep text left and numbers right.

# Additional Features

- Good practice patterns enabled by default.
- Simple activation of different patterns for tables.
- Loading data with csv files.
- Three examples:
  - HTML and CSS only.
  - HTML and JS with CSV loading.
  - React implementation.

# Library Structure

RespTable	
-- dist/	Contains the built library files.
-- cjs/	
-- esm/	
-- examples/	Includes three example projects demonstrating how to use the library.
-- html/	
-- html-with-csv/	
-- react/	
-- README.md	
-- node_modules/	Contains all the dependencies installed via npm.
-- src/	Contains the library's source code.
-- components/	All the JS code.
-- styles/	All the CSS code.
-- index.js	
-- README.md	
-- gulpfile.js	
-- LICENCE	
-- package.json	
-- rollup.config.js	
-- README.md	

# Integration Example

- Import the library with desired modules:

```
import { LoadCSV, CreateTable, ApplyStacking } from './respTable.js';
```

- Create a table and apply a pattern by calling functions:

```
const csvData = await LoadCSV('./cereals.csv');  
CreateTable(csvData);  
ApplyStacking();
```

# Future Work

- Add more patterns:
  - Fixed Columns.
  - Pagination.
  - Column / Row toggle.
- Accessibility Feature:
  - Screen reader.
- Rslidey compatibility.

Resp Table: Showcase HTML (with CSV loading)

File Name:

Example:

Name	Manufacturer	Type	Calories	Protein (g)	Fat (g)	Sodium (mg)	Fiber (g)	Carbs (g)	Sugar (g)
100% Bran	N	cere	70	4	1	110	10.00	9.00	8.00
100% Natural Bran	O	cere	120	5	5	15	2.00	9.00	9.00
All Bran	K	cere	70	4	1	200	9.00	9.00	5.00
All Bran, with Extra Fiber	K	cere	50	4	0	140	14.00	9.00	0.00
Almond Delight	B	cere	110	2	2	200	1.00	14.00	9.00
Apple, Cinnamon, Cheerios	G	cere	110	2	2	100	1.50	16.50	10.00
Apple, Dashi	K	cere	110	2	0	125	1.00	13.00	14.00
Bran, A	G	cere	100	3	2	200	1.00	10.00	8.00
Bran, Chex	B	cere	90	2	1	200	4.00	11.00	6.00
Bran, Fikoa	P	cere	90	3	0	210	5.00	11.00	5.00
Cap'n Crunch	O	cere	120	1	2	220	0.00	11.00	12.00
Cheerios	G	cere	110	0	2	200	2.00	11.00	1.00
Cinnamon, Toast Crunch	G	cere	120	1	1	210	0.00	11.00	9.00
Clusters	O	cere	100	1	2	100	2.00	13.00	7.00
Clusters, Puffs	G	cere	100	1	1	100	0.00	11.00	11.00
Corn, Chex	B	cere	110	2	0	200	0.00	11.00	3.00
Corn, Fikoa	K	cere	100	2	0	200	1.00	11.00	2.00
Corn, Pops	K	cere	110	1	0	40	1.00	11.00	12.00

# Showcase



Showcase video on YT: <https://youtu.be/3FPELCNy-5k>

Github Repo: <https://github.com/milos-globocki/RespTable>

Live Demo on Github Pages:

<https://milos-globocki.github.io/RespTable/examples/html-with-csv/>

<https://milos-globocki.github.io/RespTable/examples/html/>