

CSS GRID LAYOUT: EL FUTURO YA ESTÁ AQUÍ

MANUEL REGO CASASNOVAS ([@regocas](#))

PHPVigo / 26 Abril 2017



PRESENTACIÓN

Actualmente implementando **CSS Grid Layout**
(Chromium/Blink & Safari/WebKit)

Miembro de Igalia



igalia

GRIDS POR TODAS PARTES

The screenshot displays the top section of the New York Times website, illustrating a 3-column grid. The header includes navigation links for 'SECTIONS' and 'SEARCH', language options for 'ENGLISH', '中文 (CHINESE)', and 'ESPAÑOL', and buttons for 'SUBSCRIBE NOW' and 'LOG IN'. The main title 'The New York Times' is centered, with a date and weather/status bar below it. The content area is divided into three columns: a left column with a large article titled 'O'Reilly Out at Fox News as Harassment Claims Pile Up', a middle column featuring a featured article 'It's a Nice Night for ... Surfing' with a sunset image, and a right column titled 'The Opinion Pages' containing several shorter articles and a crossword puzzle link.

SECTIONS SEARCH

ENGLISH 中文 (CHINESE) ESPAÑOL

The New York Times

Thursday, April 20, 2017 | Today's Paper | Video | 50°F | FTSE 100 -0.13% ↓

World U.S. Politics N.Y. Business Opinion Tech Science Health Sports Arts Style Food Travel Magazine T Magazine Real Estate ALL

O'Reilly Out at Fox News as Harassment Claims Pile Up

By EMILY STEEL and MICHAEL S. SCHMIDT

- Bill O'Reilly's ouster brings an abrupt, embarrassing end to his two-decade reign as one of the most popular and influential commentators in television.
- Advertisers fled his show and public protests flared after a Times investigation revealed payouts of \$13 million to resolve claims against him of sexual harassment and inappropriate behavior.



Donald Miralle for The New York Times

It's a Nice Night for ... Surfing

Why paddle out under the stars? To get away from the crowds, mainly.

By JARED WHITLOCK

AUDIO Listen to 'The Daily' The Daily

We talk to one of the reporters whose

The Opinion Pages

EDITORIAL

Donald Trump Threatens to Sabotage Obamacare

A cynical ploy to force Democrats to negotiate would endanger the health of millions of Americans.



- Bill de Blasio's Press Problem
- Editorial Observer: Where Did All the Black Teachers Go?

OP-ED COLUMNISTS

- Blow: A Fake and a Fraud
- Collins: Paging the Trump Armada
- Kristof: The North Korea-Trump Nightmare
- Join us on Facebook »

How to Stop Drug Price Gouging

By TIM WU

Allow the sale of cheap, safe imported drugs.



Could a Leftist Bring Growth Back to France?

By MARK WEISBROT

Some dismiss Jean-Luc Mélenchon as a far-left populist. That's a mistake.



- The Mother of All Bombs
- The Coming Crisis With Iran
- Bill O'Reilly and the Upside of Corporate Cowardice

TIMES INSIDER » In Devastated Northern France, the French Flag Flies Again

THE CROSSWORD » Play Today's Puzzle



VERLAPPING 3 COLUMN GRID

1996

NEW IN BUSINESS

**BANKING
CENTER**

The New York Times

ON THE WEB

knicks^{NEW!}
celtics
one on one
newyork.boston.com

"All the News That's Fit to Print"

Thursday, November 21, 1996

SECTIONS

- Front Page ● CyberTimes
- Politics ● Business
- Editorials/Letters ● Op-Ed
- Arts & Leisure ● Travel
- Real Estate ● Job Market
- Diversions ● Web Specials

NEWS BY CATEGORY

CLASSIFIEDS | FORUMS

SERVICES | SEARCH

TABLE OF CONTENTS



Norman Gives Clinton Some Tips

LATE NEWS UPDATE

700,000 Additional
Refugees Reported
Seen Inside Zaire

IN CYBERTIMES

Wired Truckers:
Big Rigs Roll
Into Cyberspace

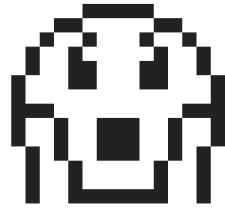
HÅKON WIUM LIE (JUNIO, 1995)

Grids! Let the style sheet carve up the canvas into golden rectangles, and use an expert system to lay out the elements!! Ok, drop the expert system and define a set of simple rules that we hardcode.. whoops! But grids do look nice!

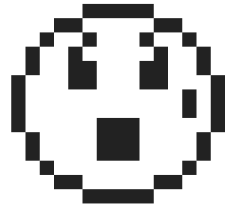
-h&kon

EVOLUCIÓN

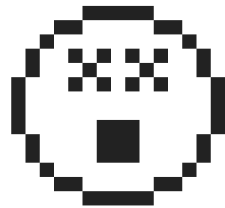
<TABLE>



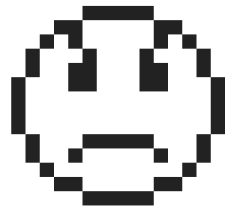
FLOAT



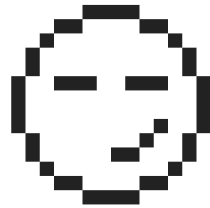
DISPLAY: INLINE-BLOCK;



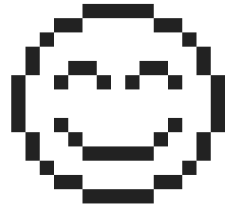
DISPLAY: TABLE;



CSS FRAMEWORKS



DISPLAY: FLEX;



DISPLAY: GRID;





INTRODUCCIÓN

CONCEPTOS

Título

Menú

Contenido

Pie

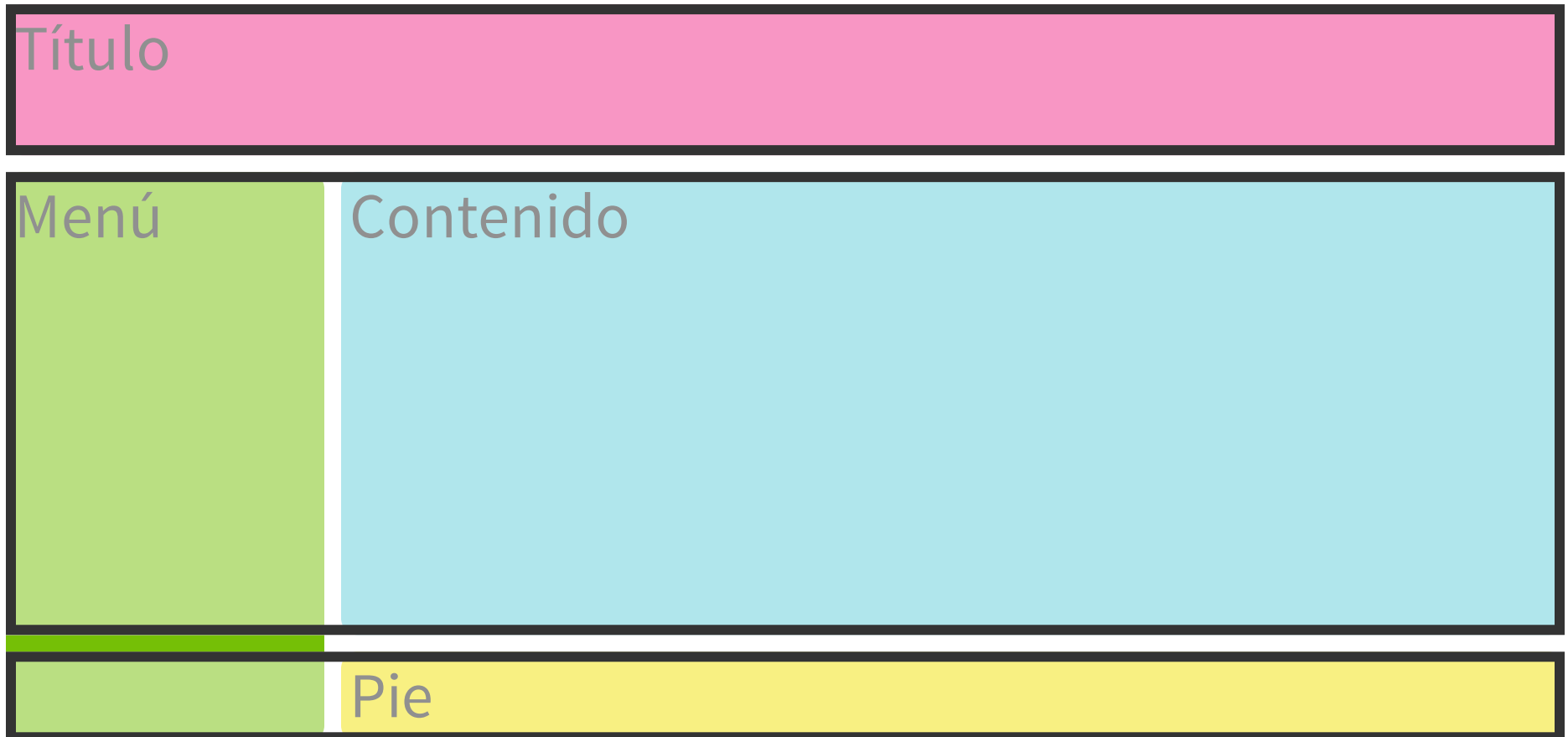
LÍNEAS



TRACKS

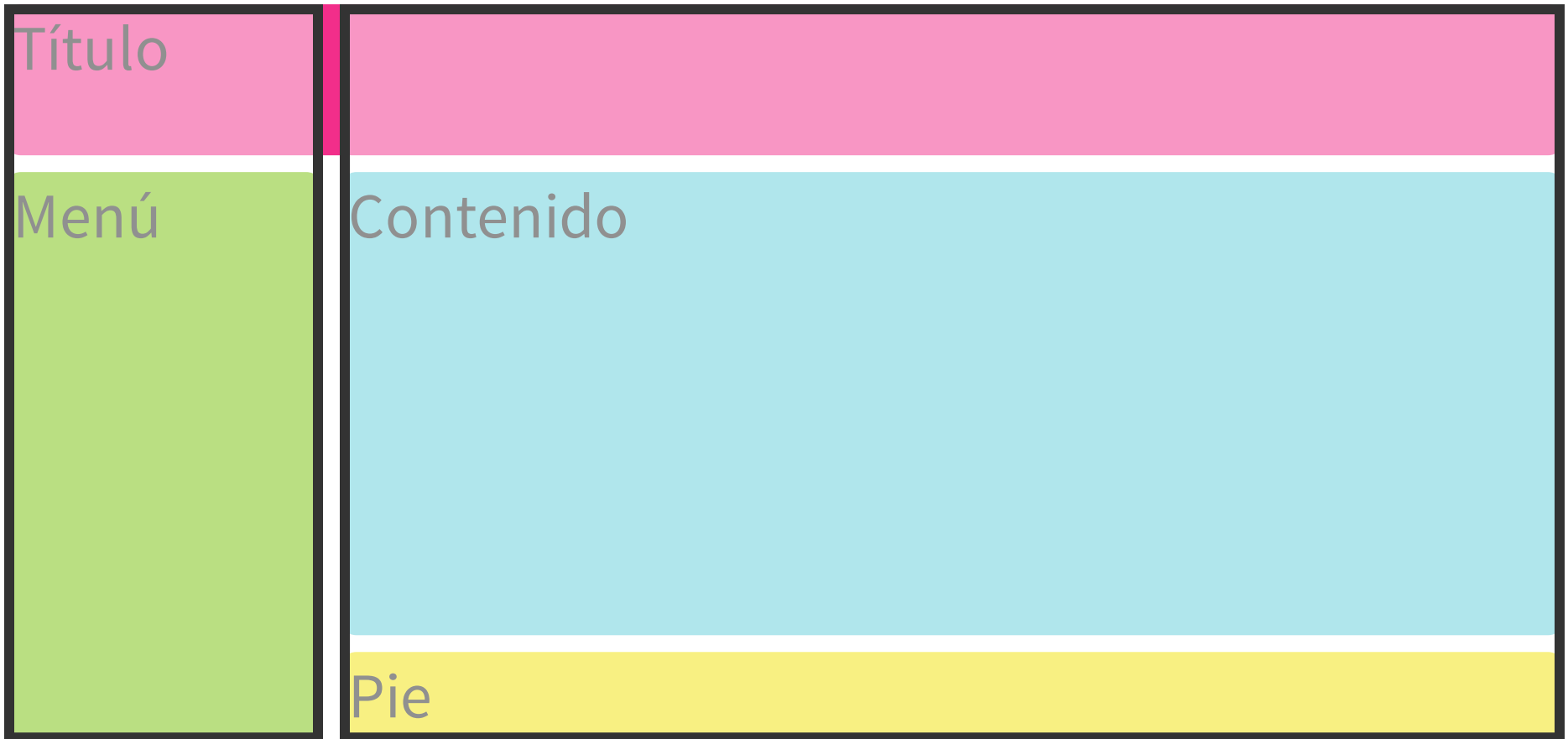
TRACKS

FILAS

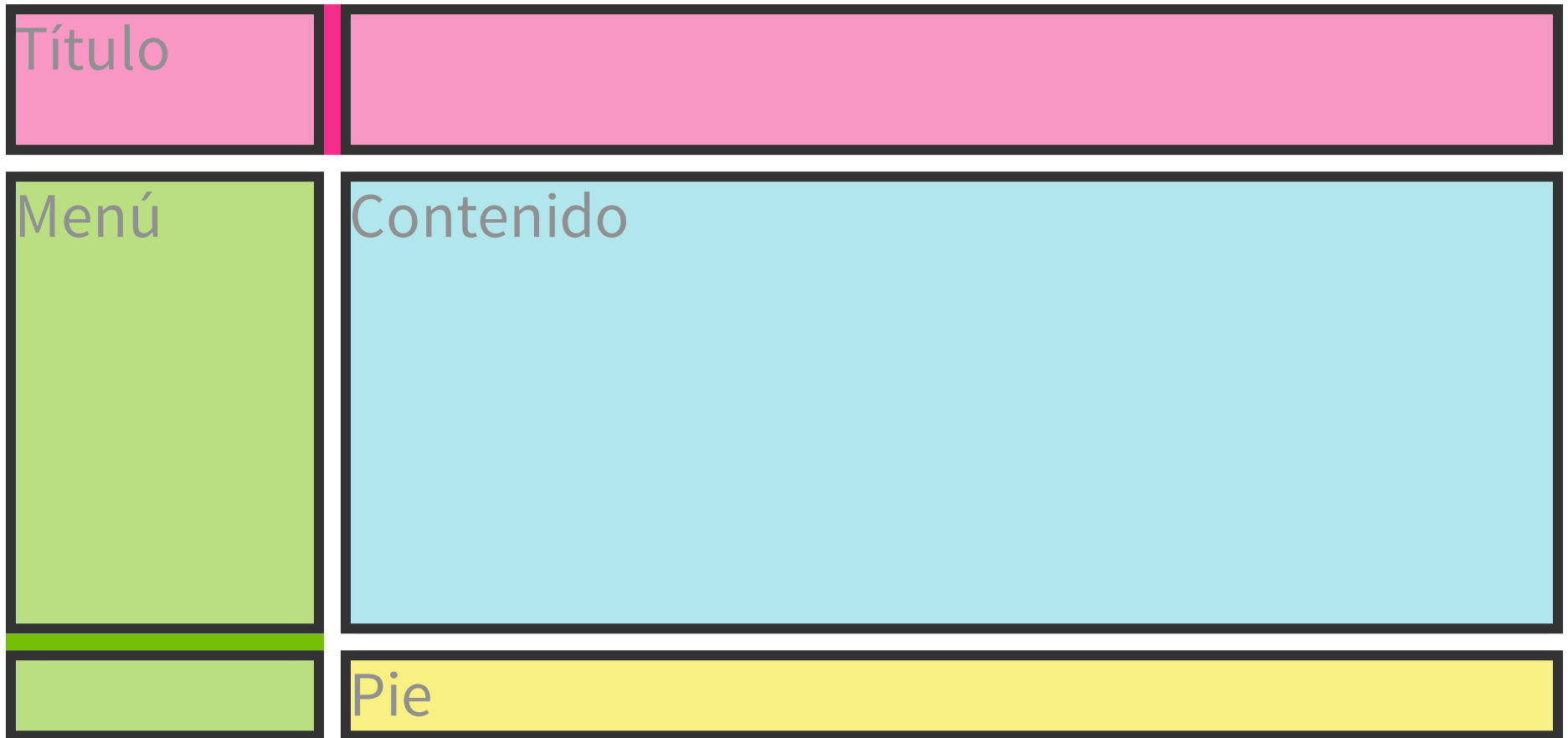


TRACKS

COLUMNAS



CELIDAS



ÁREAS





SYNTAX

DISPLAY: GRID;

Rompe el flujo habitual de la página web

TAMAÑO DE LOS TRACKS (FILAS/COLUMNAS)

`grid-template-columns` & `grid-template-rows`

¡Creación de cajas desde CSS!

TAMAÑO DE LOS TRACKS

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
  <div class="d">D</div>  
</div>
```



```
.grid { display: grid;  
  grid-template-columns: ;
```

COLOCACIÓN DE ÍTEMS

`grid-column` & `grid-row`

Orden del DOM \neq Orden visual



COLOCACIÓN DE ÍTEMS

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
</div>
```

A

B

C

```
.grid { display: grid;  
        grid: 100px 100px / 200px 200px; }
```

LÍNEAS DEL GRID CON NOMBRE

Utilizar identificadores personalizados para las líneas

Una línea puede tener varios nombres

LÍNEAS DEL GRID CON NOMBRE

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
</div>
```

A

B

C

```
.grid { display: grid;  
  grid-template-columns:
```

ÁREAS DEL GRID

grid-template-areas

ASCII ART

ÁREAS DEL GRID

```
<div class="grid">
  <div class="a">A</div>
  <div class="b">B</div>
  <div class="c">C</div>
  <div class="d">D</div>
</div>
```

A

B

C

D

```
.grid { display: grid;
        grid-auto-columns: 100px; grid-auto-rows: 75px;
        grid-template-areas: "header header"
                             "nav      main   "
                             "footer footer"; }

.a { grid-area: header; }
.b { grid-area: main; }
.c { grid-area: nav; }
.d { grid-area: footer; }
```

ALINEAR Y JUSTIFICAR

Especificación [CSS Box Alignment](#)

¡Centrado horizontal & vertical!

ALINEAR Y JUSTIFICAR ÍTEMS

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
</div>
```



```
.grid { display: grid; grid: 100px 100px / 200px 200px;  
  align-items: ; justify-items: ; }
```

ALINEAR Y JUSTIFICAR TRACKS

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
</div>
```



```
.grid { display: grid; grid: 100px auto / 150px auto;  
  align-content: ;
```

SEPARACIÓN ENTRE TRACKS

`grid-row-gap` & `grid-column-gap`

SEPARACIÓN ENTRE TRACKS

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
  <div class="d">D</div>  
  <div class="e">E</div>  
</div>
```



```
.grid { display: grid;  
        grid: 100px 100px / 100px 100px 100px;
```

COLOCACIÓN AUTOMÁTICA

`grid-auto-flow`

COLOCACIÓN AUTOMÁTICA

```
<form>
  <label>Etiqueta</label>
  <input>
  <label>Checkbox</label>
  <input type="checkbox">
  <button>Enviar formulario</button>
</form>
```

Etiqueta

Checkbox

Enviar formulario

```
form { }
label { }
```

GRID IMPLÍCITO

`grid-auto-columns` & `grid-auto-rows`

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
  <div class="d">D</div>  
</div>
```

A

B

C

D

```
.grid { display: grid;  
        grid-auto-columns: ;
```

REPEAT () AUTOMÁTICO

Valores `auto-fill` & `auto-fit` para `repeat ()`

REPEAT () AUTOMÁTICO

```
<div class="grid">  
  <div class="a">A</div>  
  <div class="b">B</div>  
  <div class="c">C</div>  
  <div class="d">D</div>  
  <div class="e">E</div>  
</div>
```



```
.grid { display: grid;  
        grid-template-columns: repeat(3, 100px);
```

GRIDS ADAPTATIVOS (RESPONSIVE)

El tamaño de los tracks puede ser flexible

Media Queries

GRIDS ADAPTATIVOS (RESPONSIVE)

```
.grid {  
  display: grid;  
  grid: 100px 1fr auto / 200px 1fr;  
  grid-template-areas: "header header"  
                      "menu  main  "  
                      "menu  footer";  
}  
  
@media (max-width: 400px) {  
  .grid {  
    grid: 100px 1fr 100px auto / 1fr;  
    grid-template-areas: "header"  
                        "main  "  
                        "menu  "  
                        "footer"; }  
}
```

GRIDS ADAPTATIVOS (RESPONSIVE)

Título

Menú

Contenido

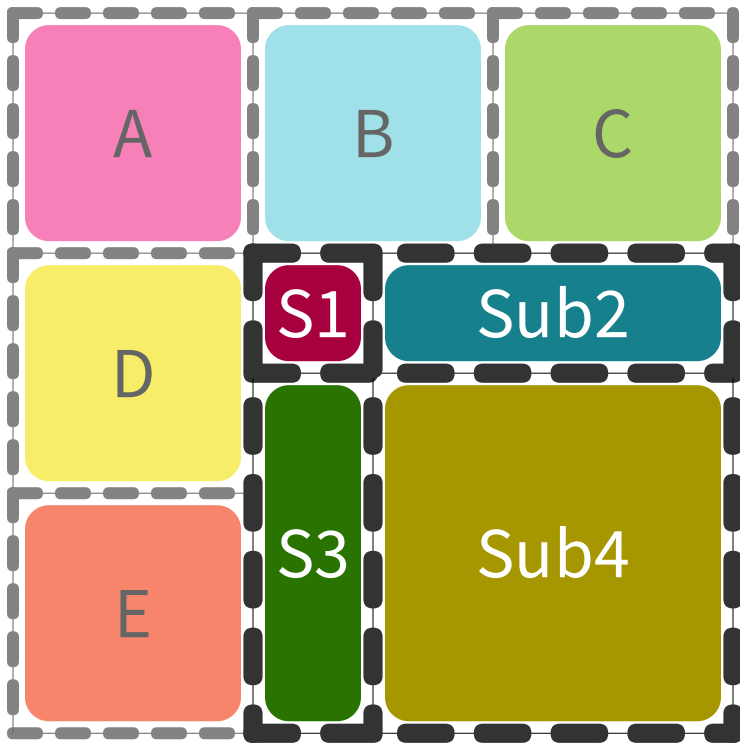
Pie



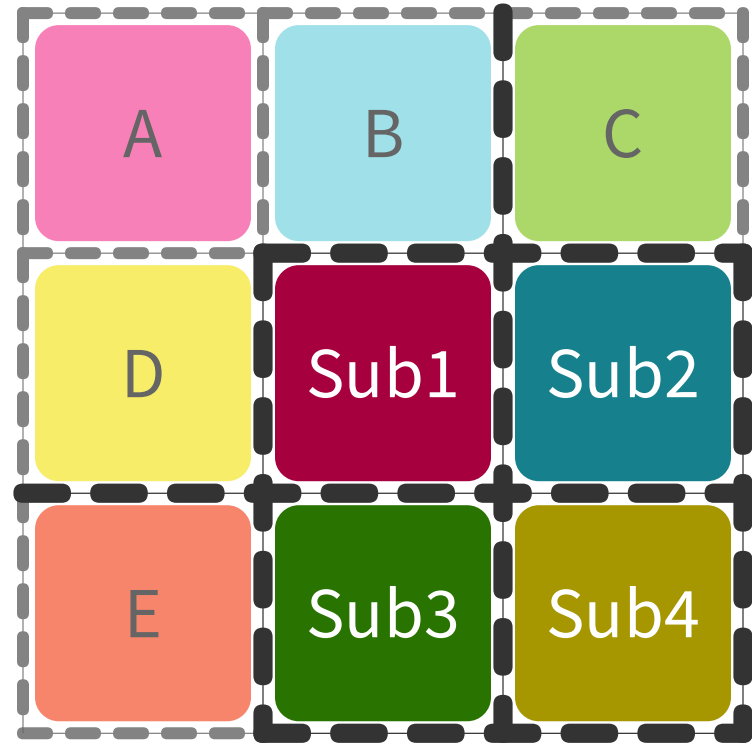
FUTURO

SUBGRIDS

Grid Anidado



Subgrid



SUBGRIDS

```
<form><ul>  
  <li><label>Etiqueta</label>  
  <li><label>Checkbox</label>  
  <li><button>Enviar formulario</li>  
</ul></form>
```

Etiqueta

Checkbox

Enviar formulario

```
ul { display: grid; }  
li { display: grid; }
```

SUBGRIDS



Nice Grapes

Fruiting berry of the deciduous woody vines.



Awesome Pineapples

Tropical fruit consisting of coalesced berries.



Wonderful Pear

Fruit typically rounded but elongated and growing smaller toward the stem.



Tasty Banana

Tropical fruit with yellow or reddish rind.



Good Strawberry

Fruit consisting of an enlarged fleshy receptacle bearing achenes on its exterior.

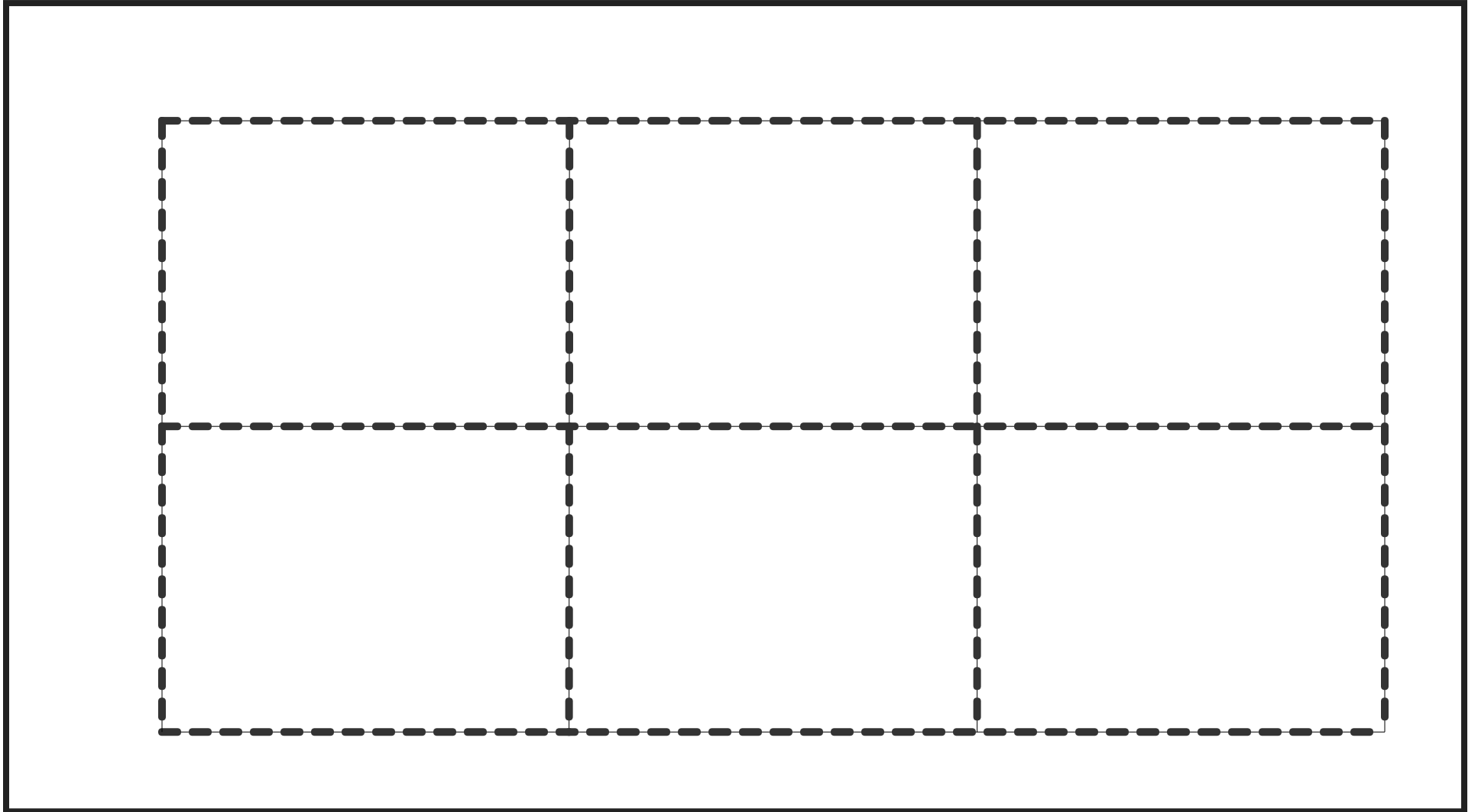
¿CÓMO FUNCIONAN?

EJEMPLO

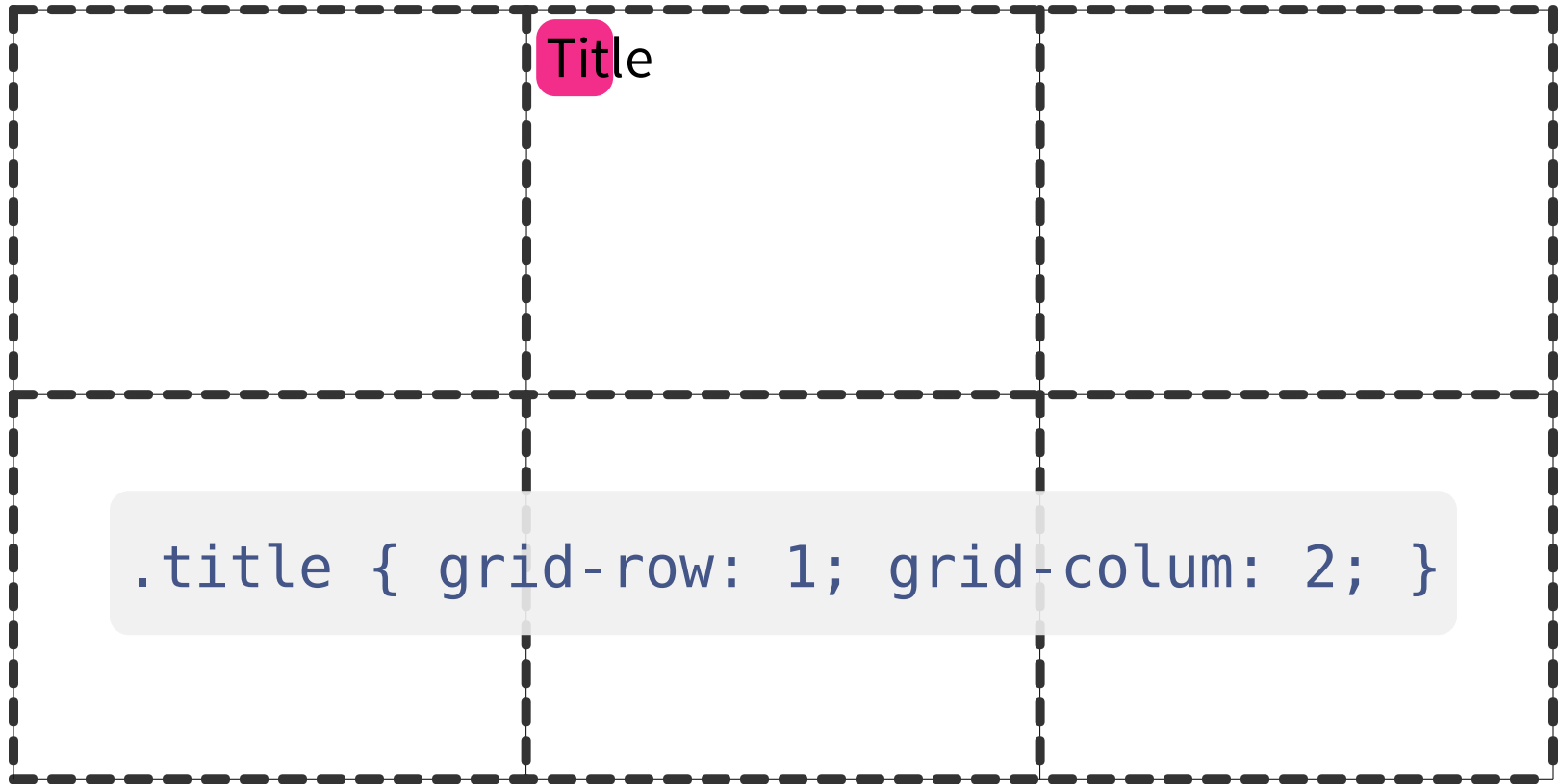
```
<div class="grid">
  <div class="title">Title</div>
  <div class="nav">Nav</div>
  <div class="main">Lorem ipsum...</div>
  <div class="aside">Ad</div>
  <div class="aside">Adword</div>
</div>
```

```
.grid { display: grid;
        width: 800px;
        grid-template-columns: 200px 1fr auto;
        grid-template-rows: 100px auto; }
.title { grid-row: 1; grid-column: 2; }
.nav    { grid-row: 2; grid-column: 1; }
.main   { grid-row: 2; grid-column: 2; }
.aside  {                grid-column: 3; }
```

GRID VACÍO

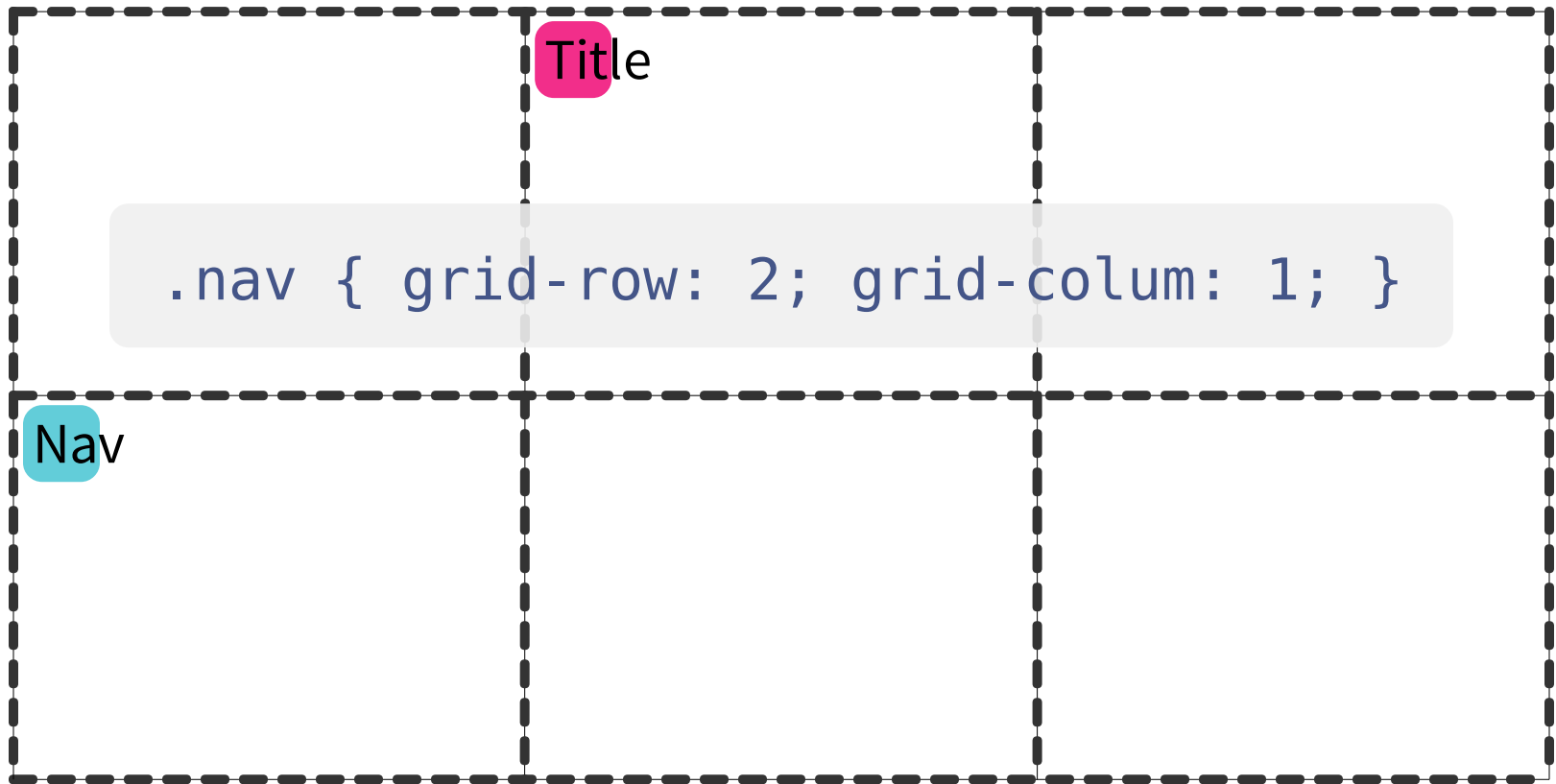


COLOCACIÓN DE ÍTEMS

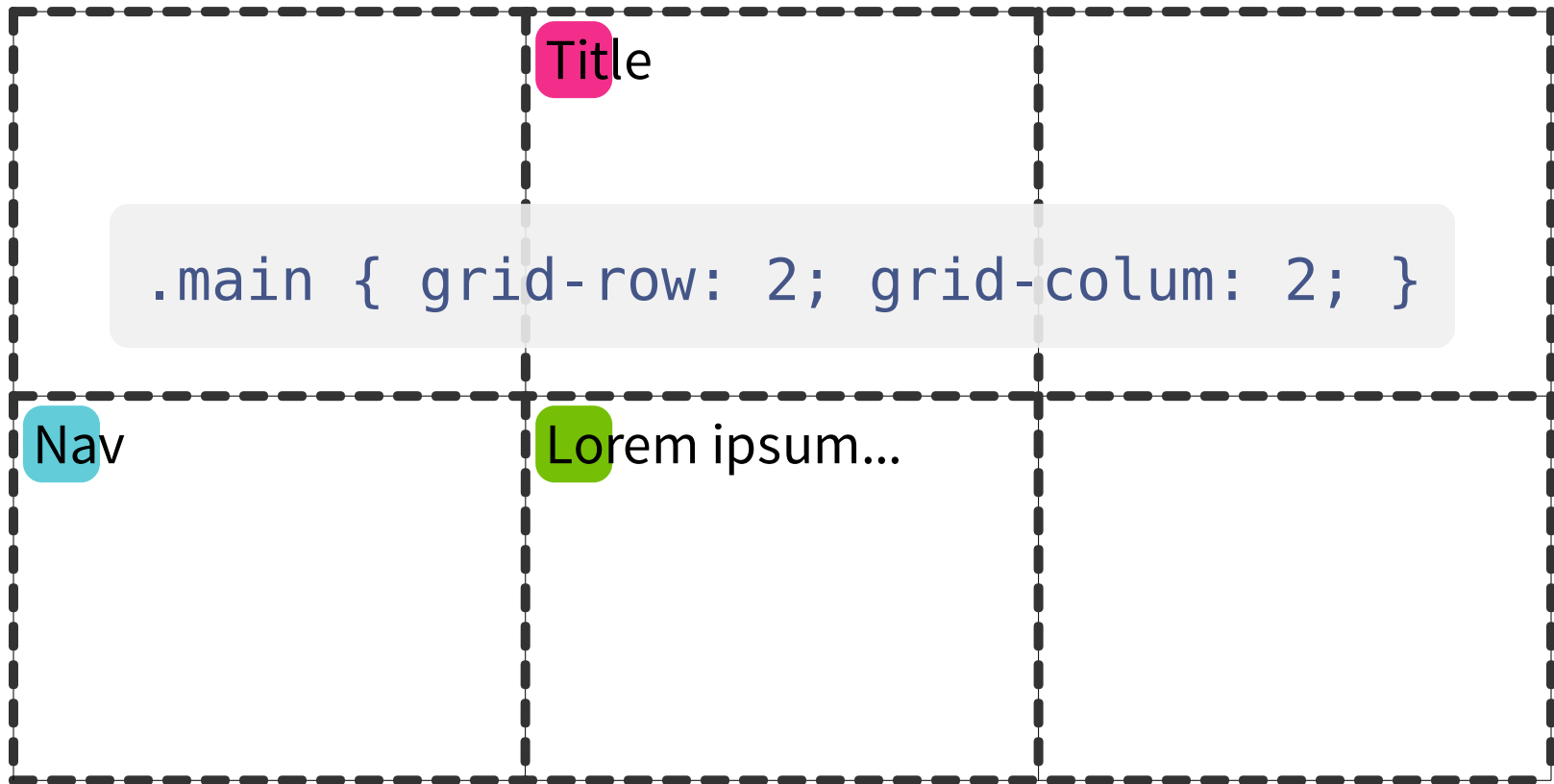


```
.title { grid-row: 1; grid-column: 2; }
```

COLOCACIÓN DE ÍTEMS

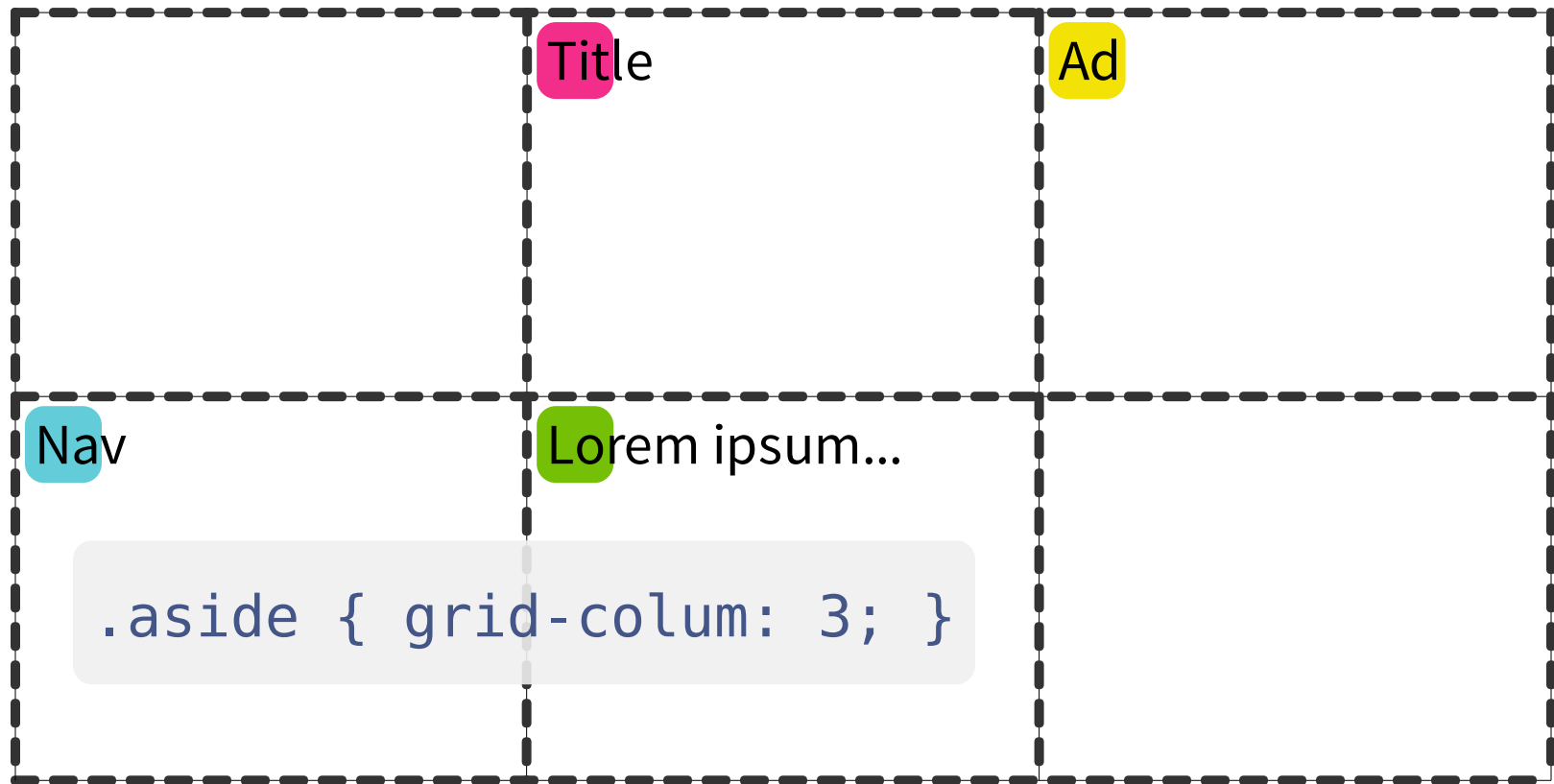


COLOCACIÓN DE ÍTEMS

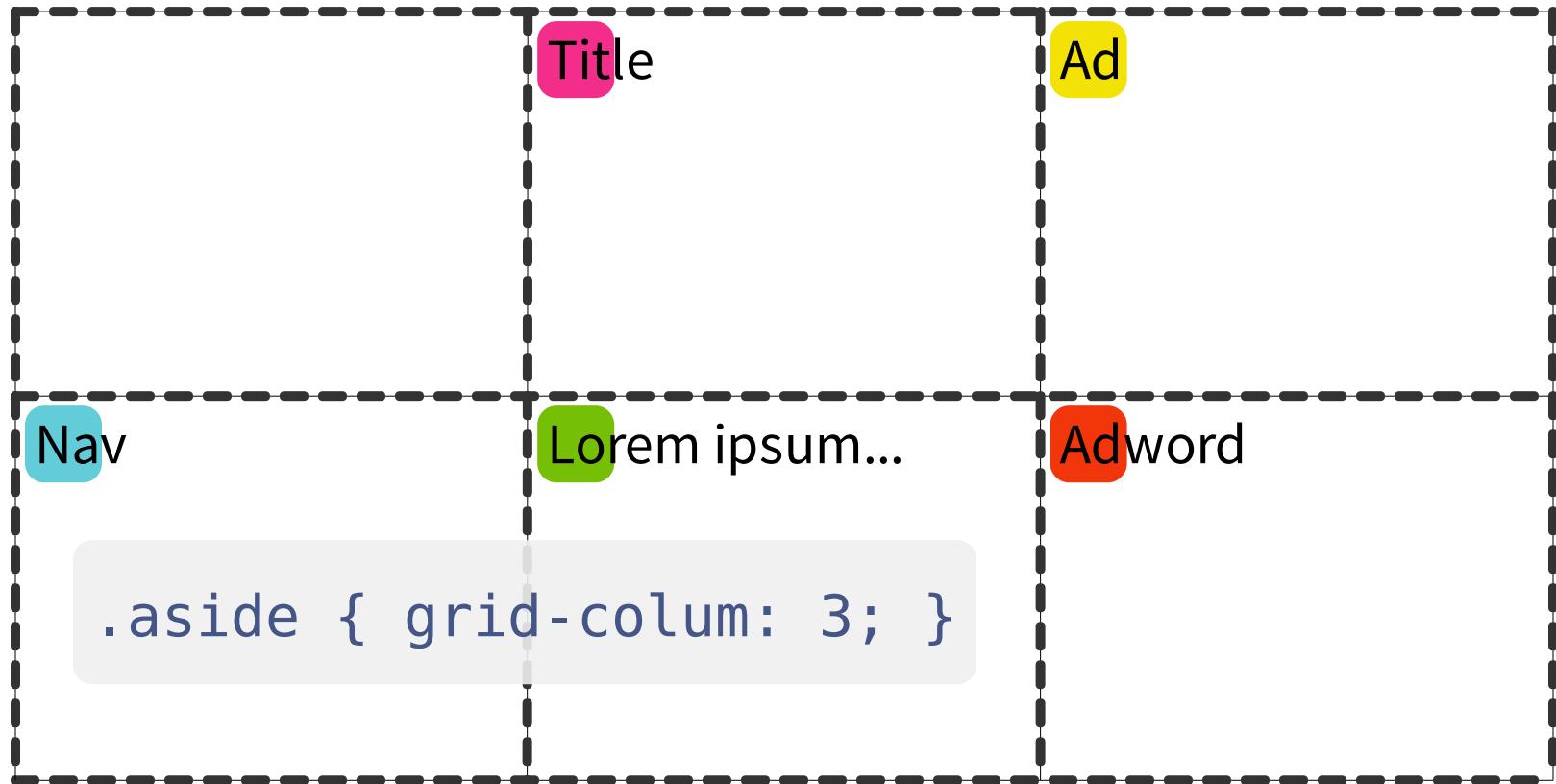


```
.main { grid-row: 2; grid-column: 2; }
```

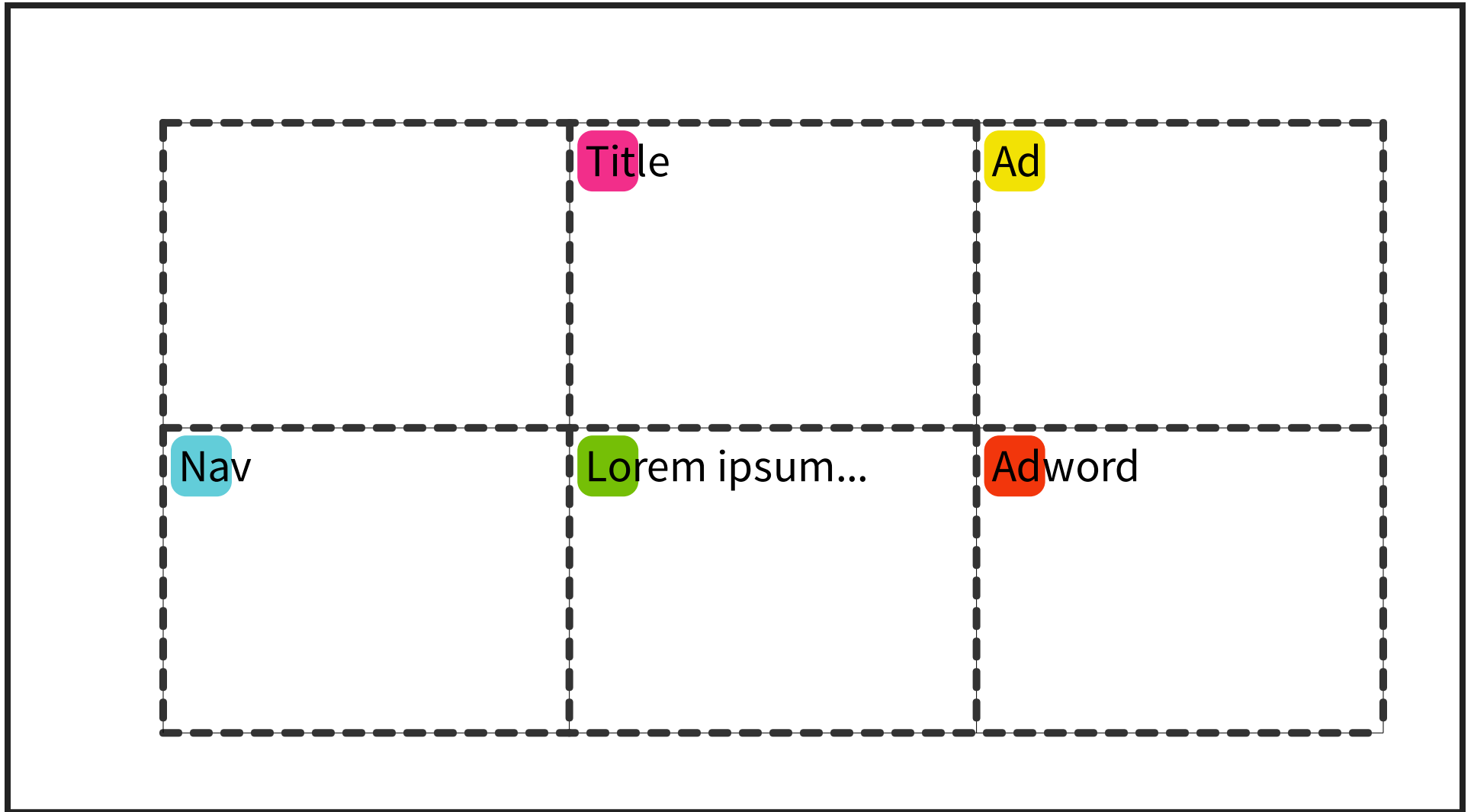
COLOCACIÓN DE ÍTEMS



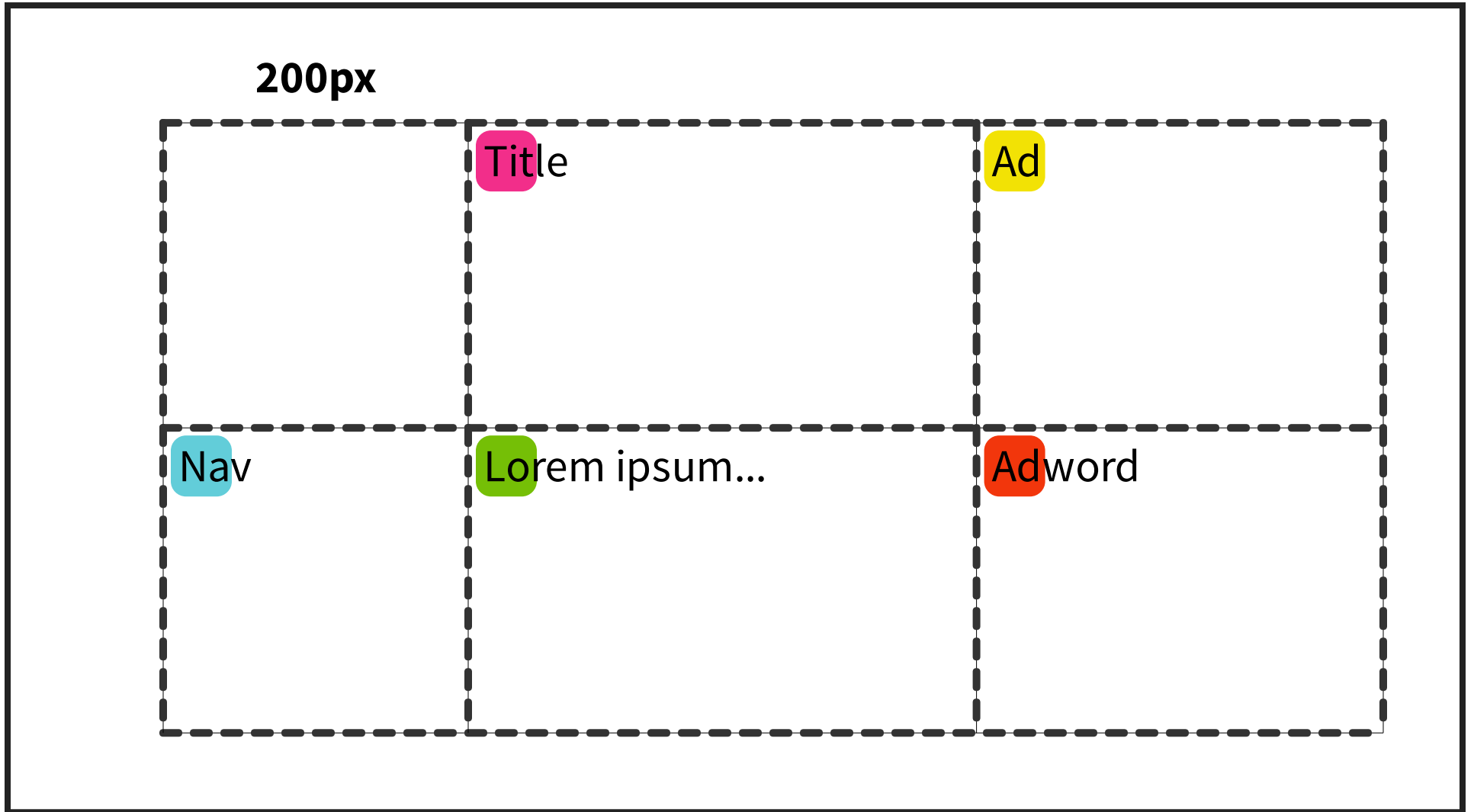
COLOCACIÓN DE ÍTEMS



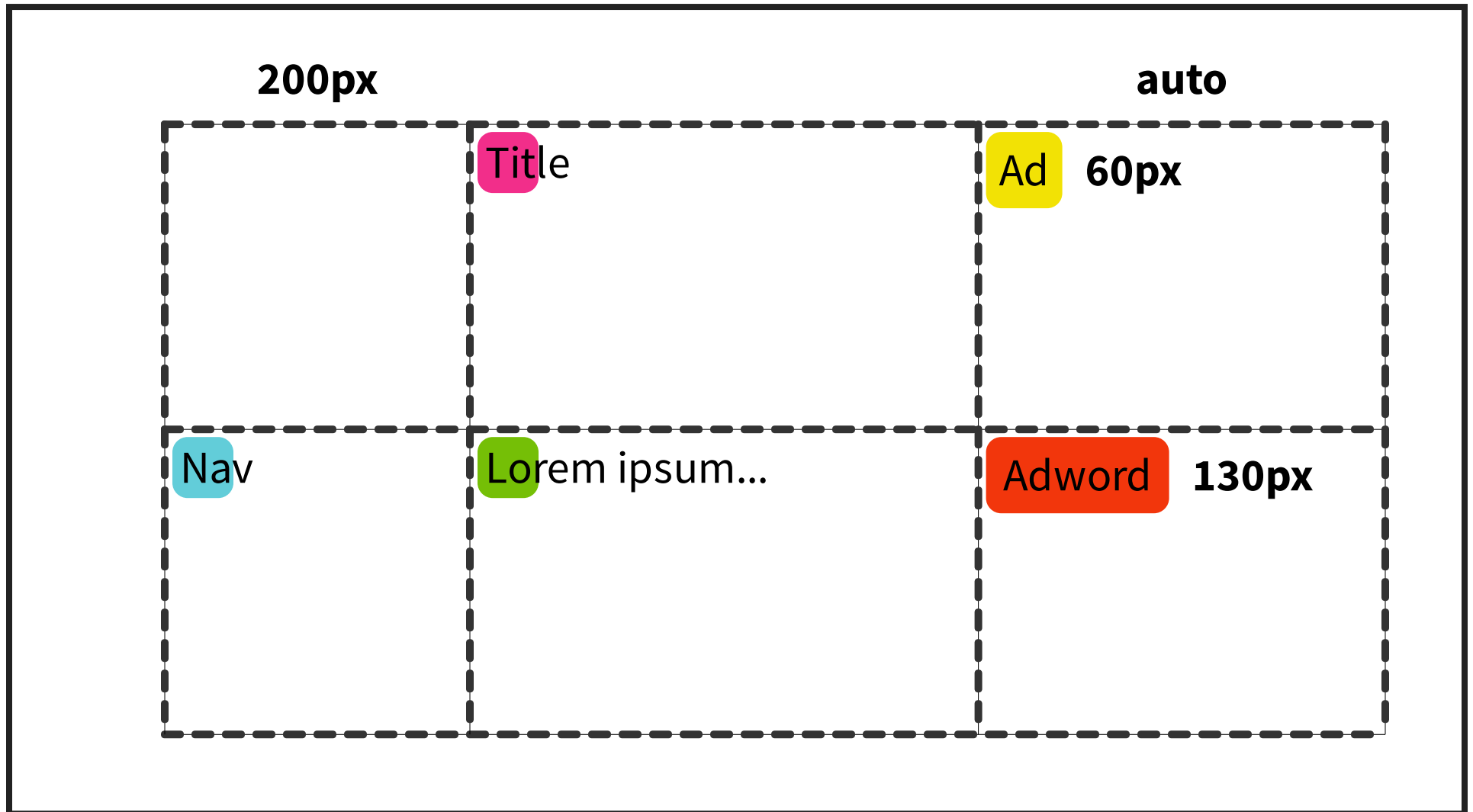
COLOCACIÓN DE ÍTEMS



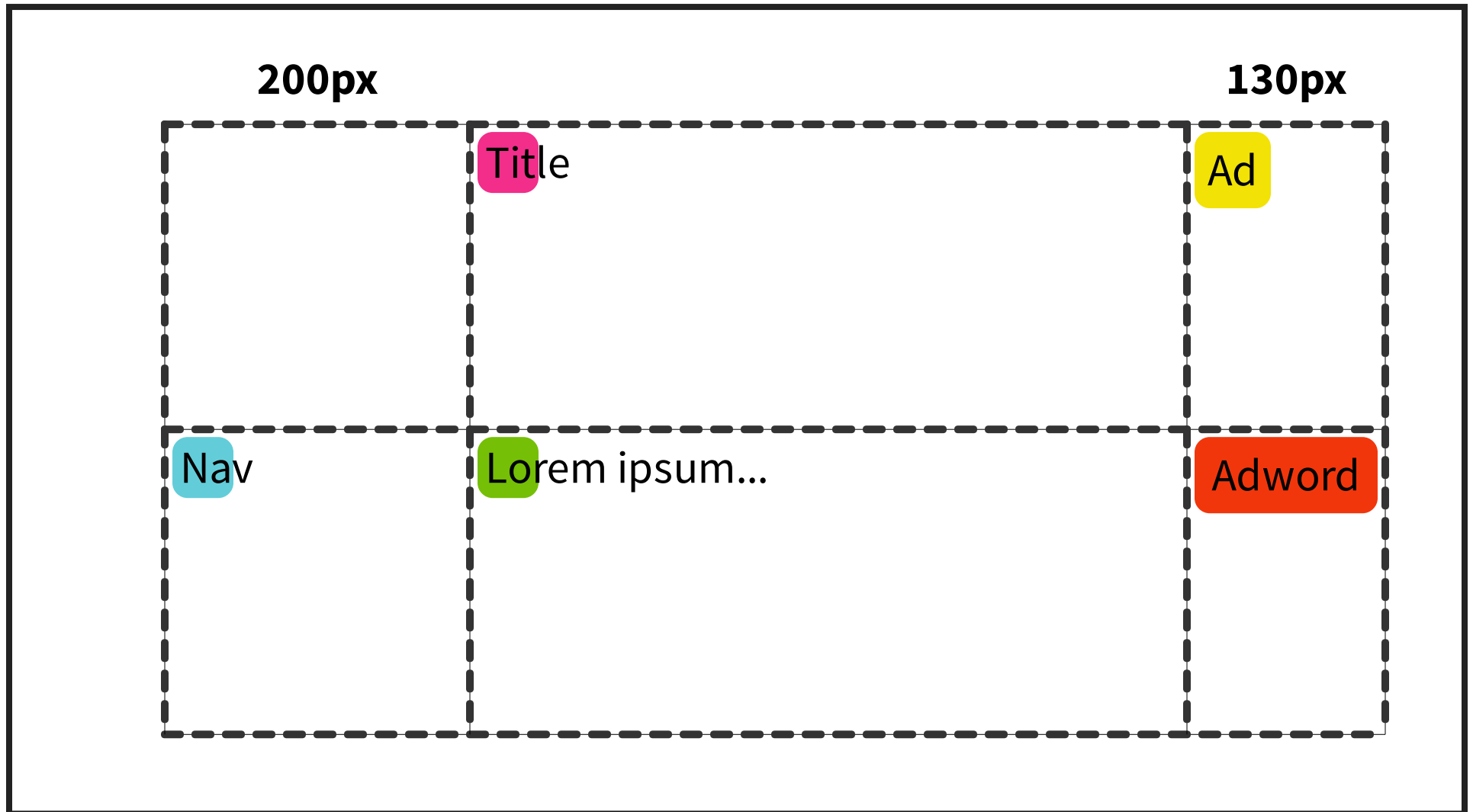
COLUMNA DE TAMAÑO FIJO



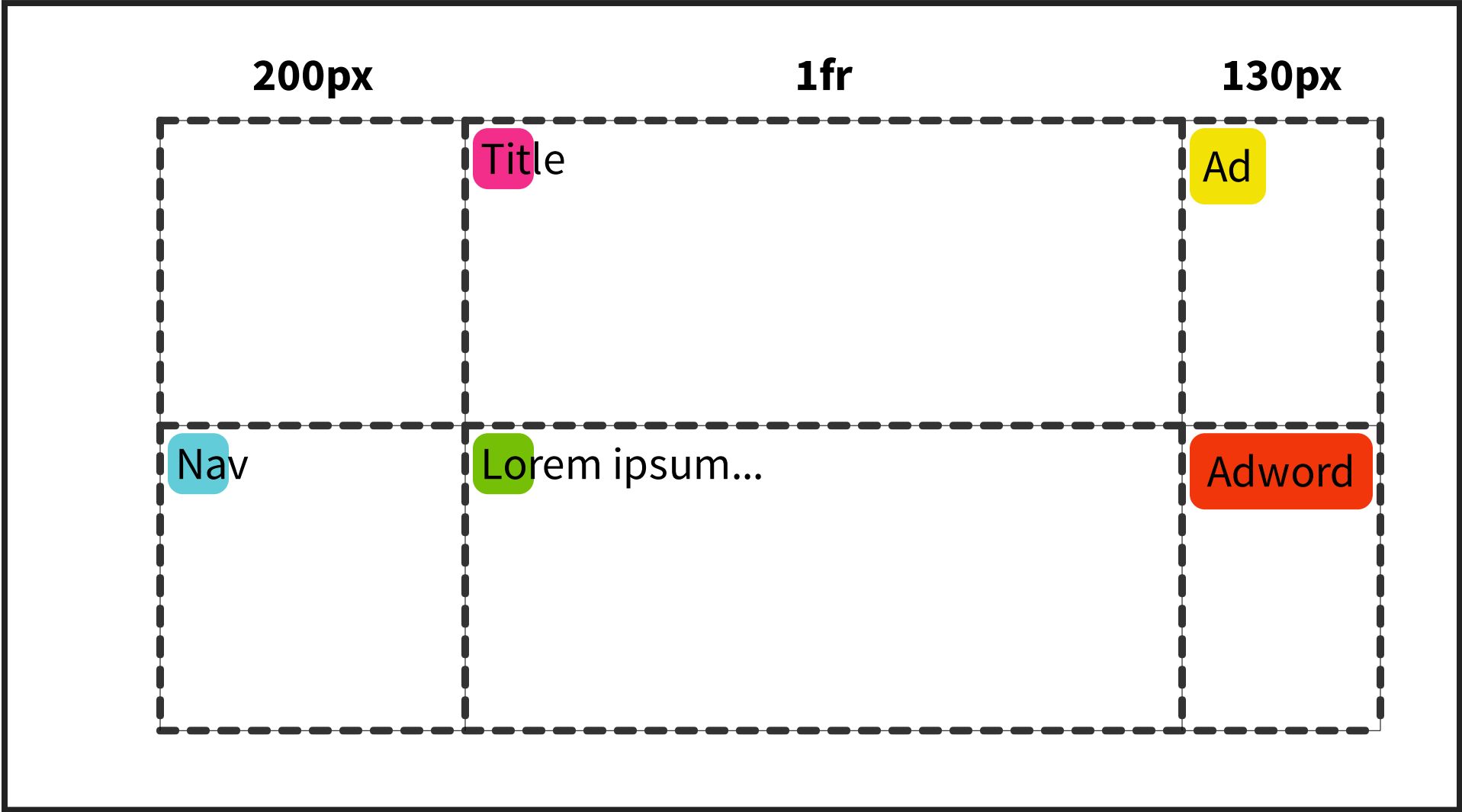
COLUMNA BASADA EN CONTENIDO



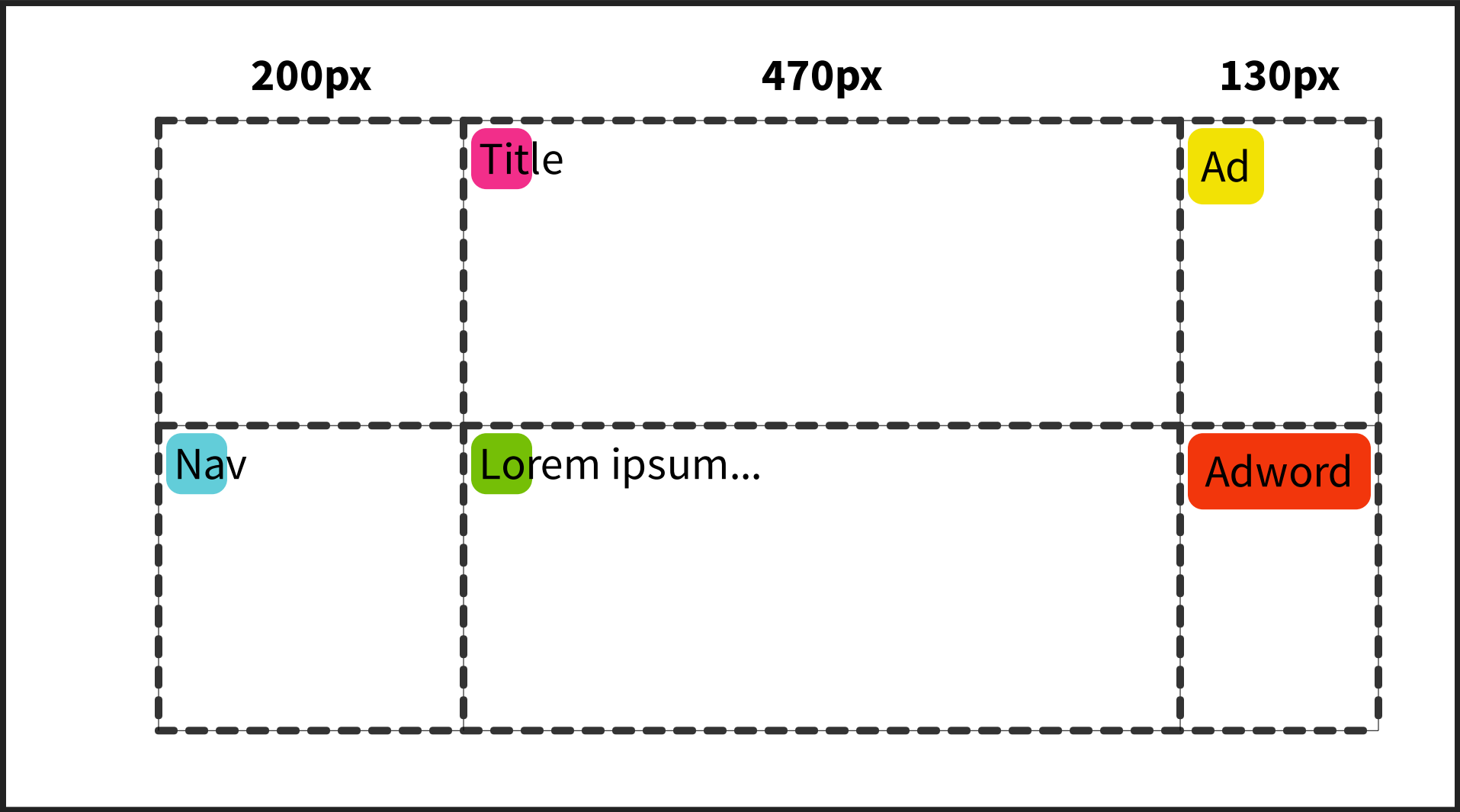
COLUMNA BASADA EN CONTENIDO



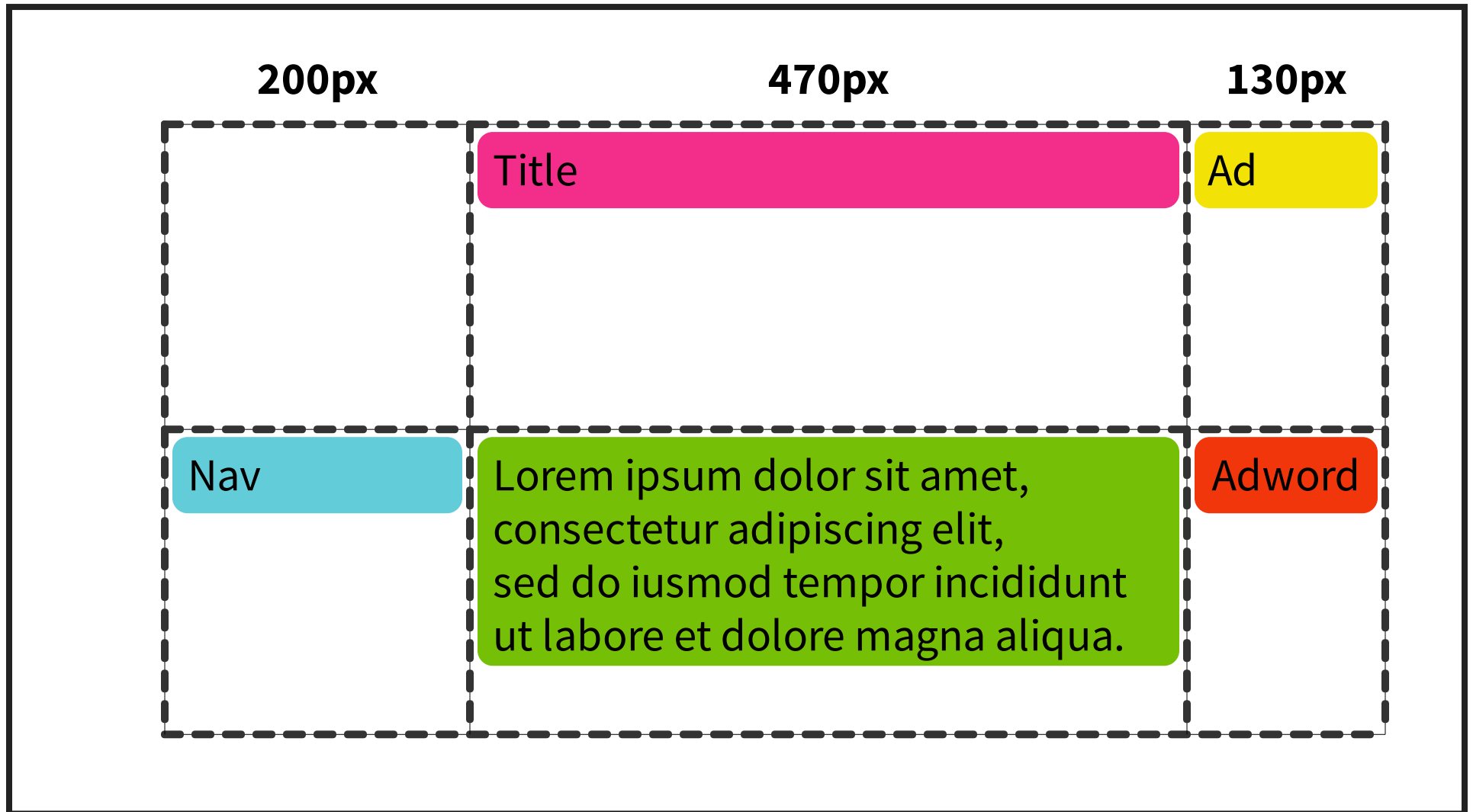
COLUMN FLEXIBLE



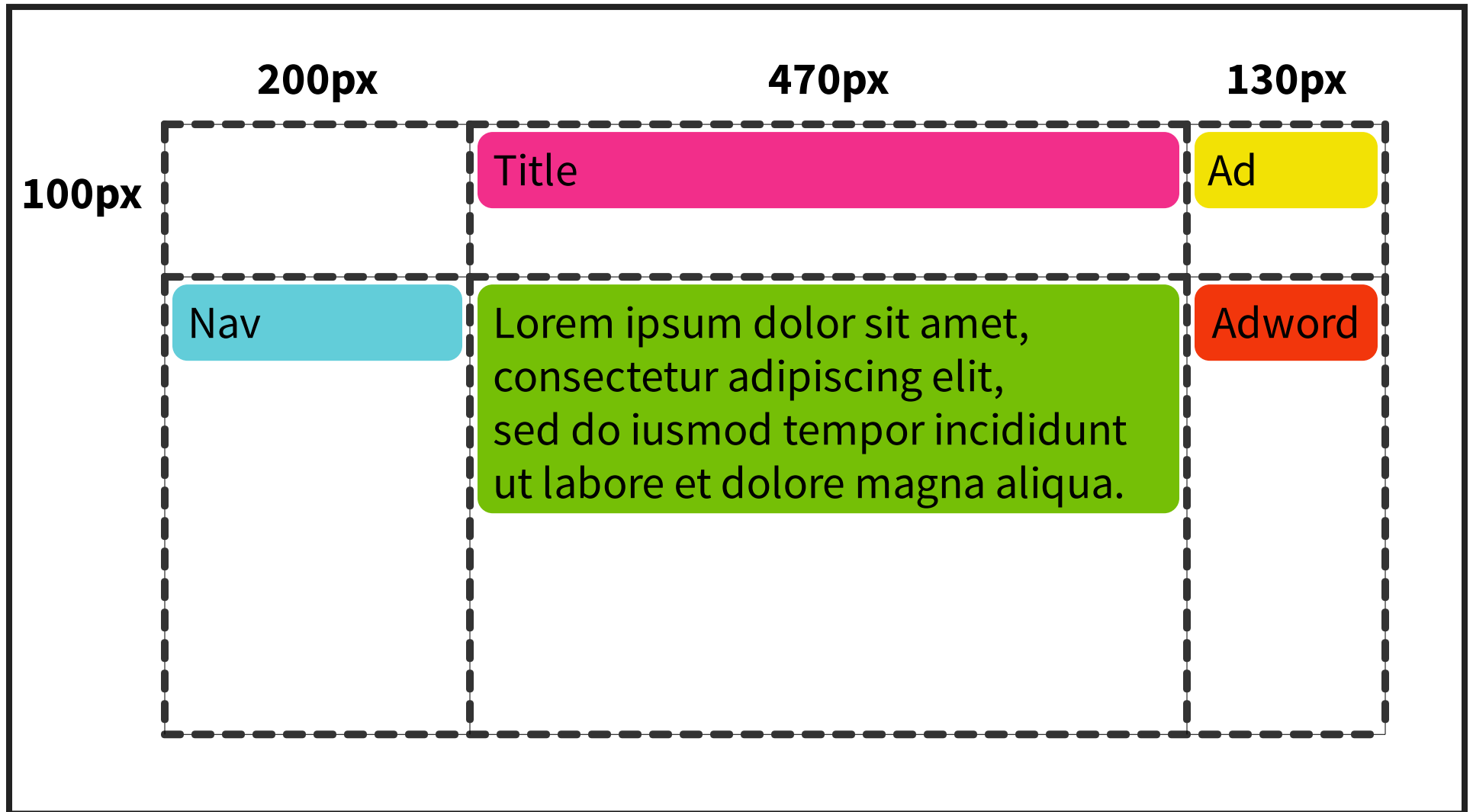
COLUMN FLEXIBLE



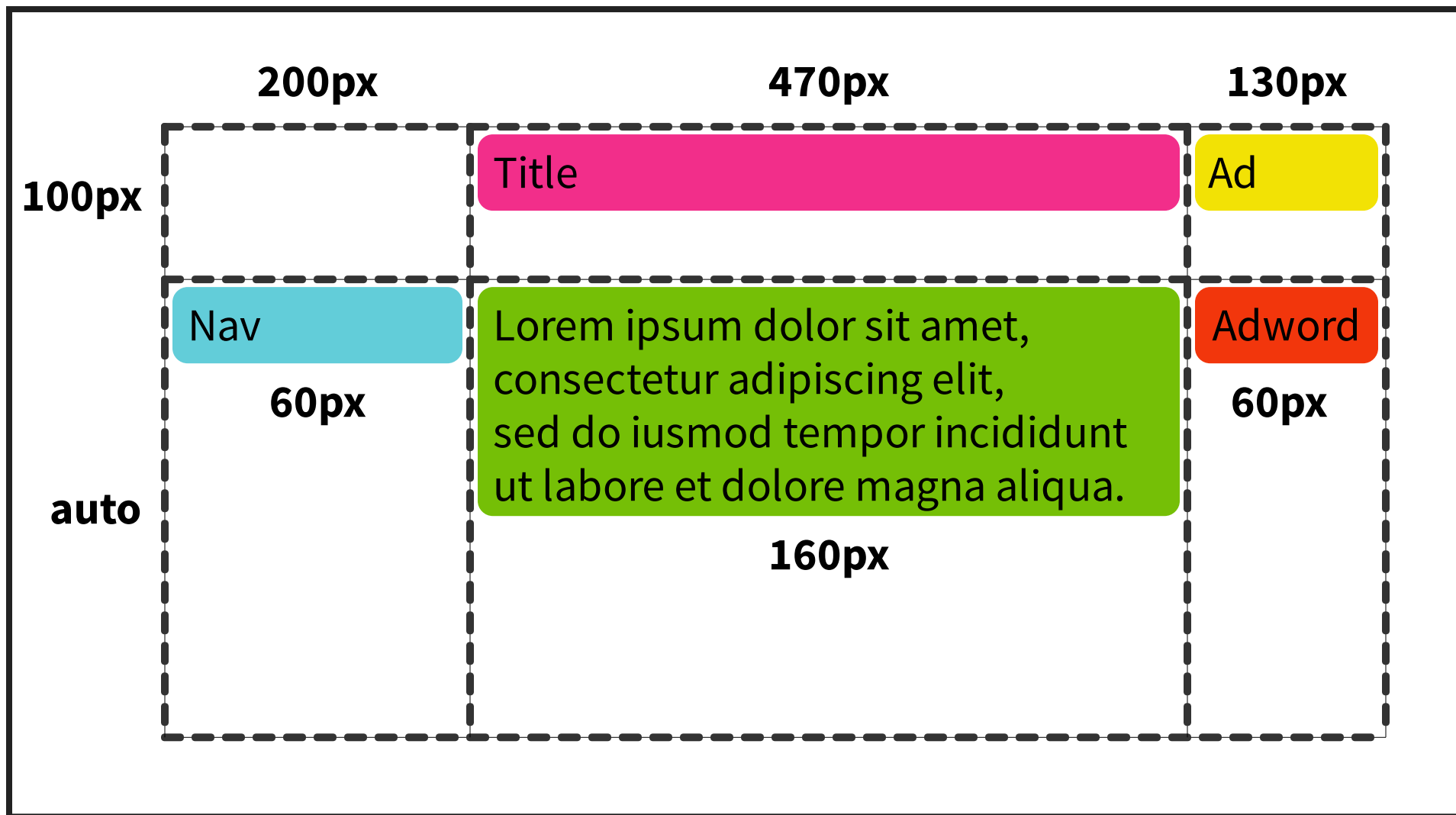
HACER LAYOUT DE LOS ÍTEMS



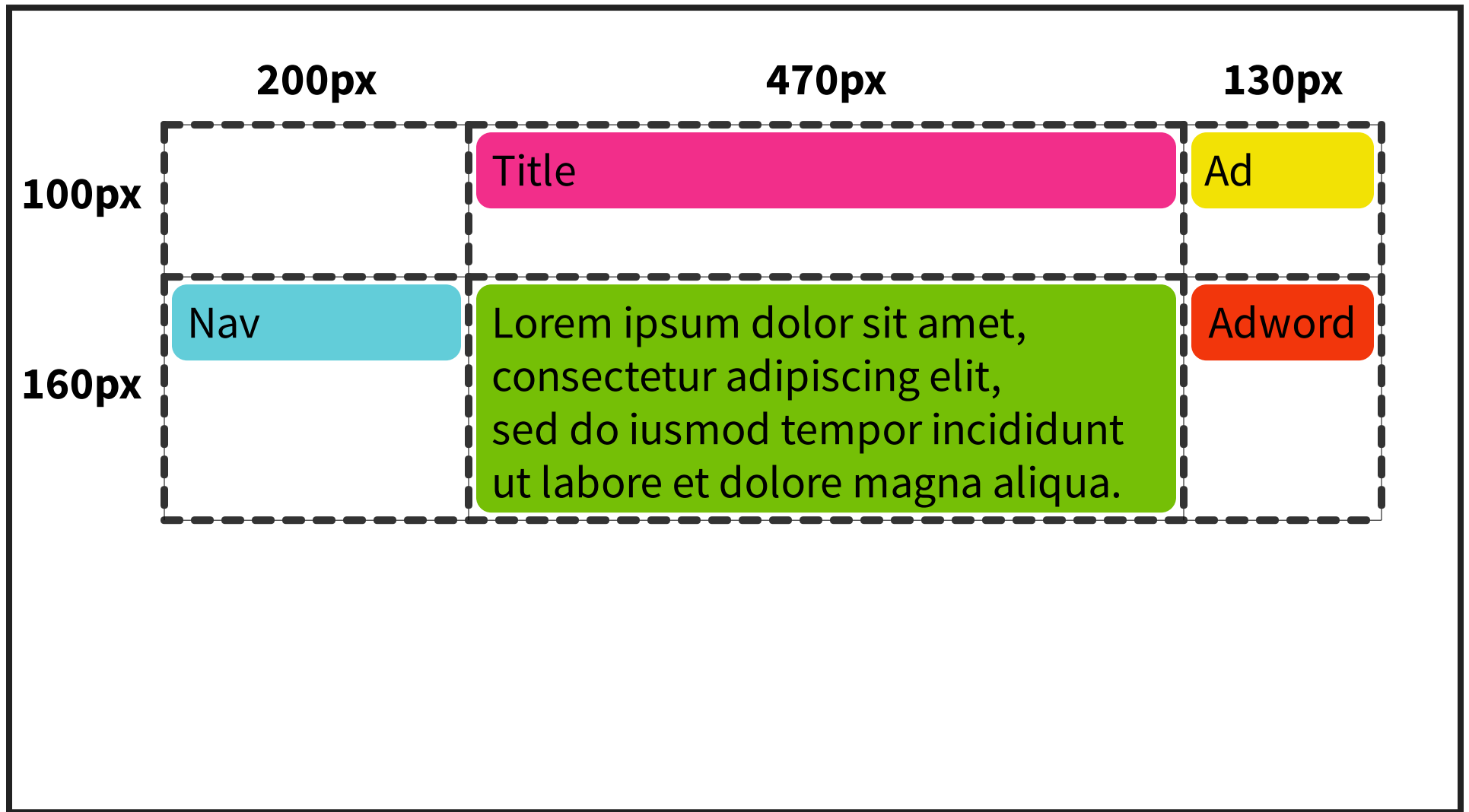
FILA CON TAMAÑO FIJO



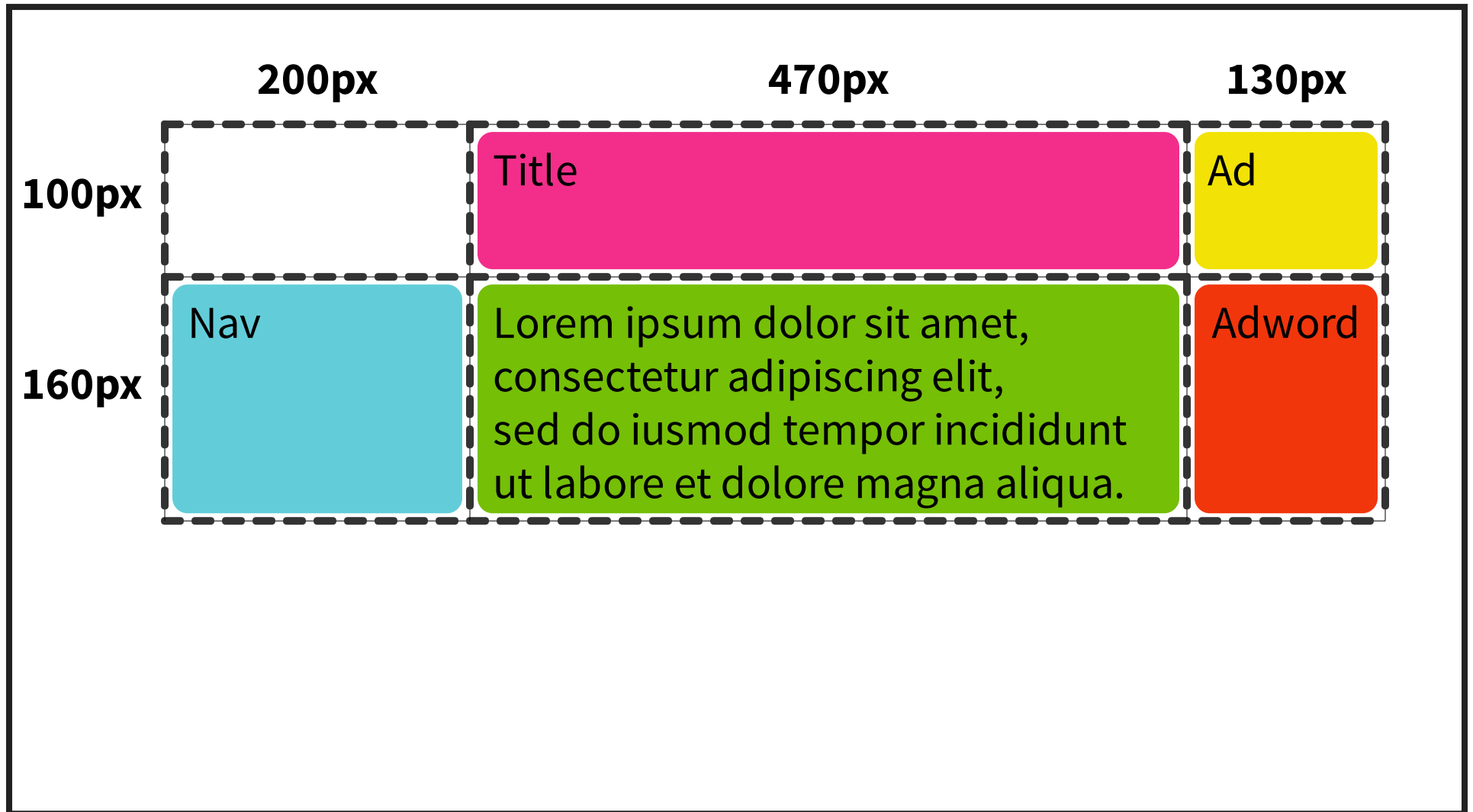
FILA BASADA EN EL CONTENIDO



FILA BASADA EN EL CONTENIDO



ESTIRAR ÍTEMS





ESTADO

ESPECIFICACIÓN W3C

CSS Grid Layout - <https://drafts.csswg.org/css-grid/>

La empezó Microsoft en 2010

Candidate Recommendation 9 Febrero 2017

W3C Test Suite

¿PUEDO USAR GRID? 🤪

CSS Grid Layout 📄 - CR

Global 31.32% + 5.69% = 37.01%
 unprefixad: 31.32%

Method of using a grid concept to lay out content, providing a mechanism for authors to divide available space for layout into columns and rows using a set of predictable sizing behaviors

Current aligned Usage relative Date relative Show all

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
			1 49						
			1 55						
		2 51	1 56			9.3		4.4	
	2 14	5 52	4 57	10	1 43	10.2		4.4.4	
2 11	2 15	5 53	58	10.1	44	10.3	all	56	4 57
		54	59	TP	45				
		55	60		46				
		56	61						

NAVEGADORES



Versión 57

Marzo 2017



Versión 10.1

Marzo 2017



Versión 52

Marzo 2017



Implementación antigua desde IE 10.

Con prefijo: **-ms**

Polyfill: <https://github.com/FremyCompany/css-grid-polyfill>

DESDE AHORA MISMO

Progressive Enhancement

@supports es tu amigo

```
@supports (display: grid) {  
  ...  
}  
  
@supports not (display: grid) {  
  ...  
}
```


RECURSOS

- [Mozilla Developer Network \(MDN\)](#)
- [gridbyexample.com](#) & [CSS Grid Ask Me Anything \(AMA\)](#) by Rachel Andrew
- [labs.jensimmons.com](#) by Jen Simmons

AGRADECIMIENTOS



igalia

Bloomberg

Igalia y Bloomberg trabajando juntos por mejorar la web

C S S **¡GRACIAS!** R I D

- Twitter: [@regocas](#)
- Correo: rego@igalia.com
- Blog: <http://blogs.igalia.com/mrego/>

L A Y O U T