



HOME CONTACT SEARCH



# WEB LAYOUT PITFALLS & SOLUTIONS

JÖRG NEUMANN | ACLUE  
ROBIN MÜLLER | ACLUE



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[Formular ohne Masken](#)

Handling: Formular mit Masken  
- Validierung: Nur ein gültiges Value  
- Reaktion: Fehlermeldung  
- Rückgabe: Formular mit Fehler  
- Spezialeigenschaften: Formular mit Masken



LADEN

# JÖRG NEUMANN

## THEMEN

- Frontend Technologies
- Mobile Development
- Machine Learning
- Consulting, Coaching, Training

## KONTAKT

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# ROBIN MÜLLER

## THEMEN

- Machine Learning
- Frontend Technologies
- Java Fullstack
- Consulting, Training

## KONTAKT

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# DEMOS



<https://tinyurl.com/5n6st9su>



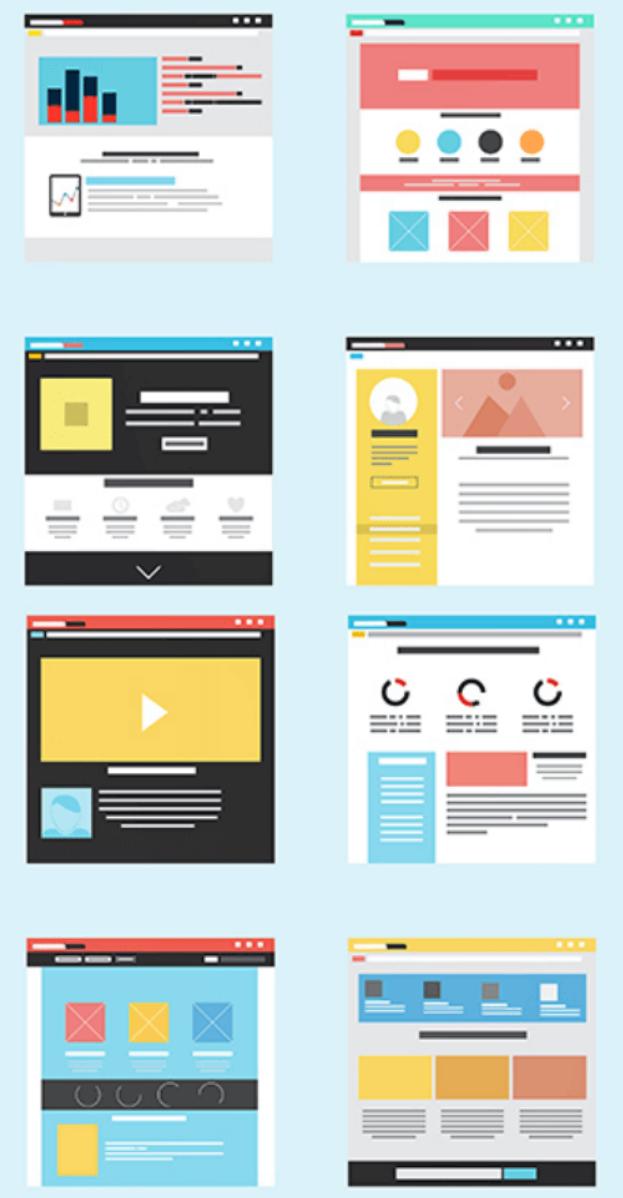
# WEB DESIGN PATTERNS

## PRINCIPLES

- Predictability
- Consistency
- Responsiveness

## PATTERNS

- Anatomy Patterns
- Composition Patterns



# WEB DESIGN PATTERNS

## SINGLE COLUMN LAYOUT

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Matthew McFarlane  
Apr 26 · 6 min read ★ · Listen

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### AI Will Soon Put Creators Out of Work. How Should We Adapt?

A review of Daniel Susskind's 'A World Without Work'

**A WORLD WITHOUT WORK**  
Technology, Automation, and How We Should Respond  
DANIEL SUSSKIND

Cover Design by [Nicolette Seebach](#)

It wasn't long ago that "creati... 66 | 2 | ... ion would finally validate our life choices. Those of us who chose to major in the liberal or fine arts would

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Legendäres 3:1 der DFB-Elf: Vor 50 Jahren ging Englands Fußball in Wembley (gegen Deutschland) zugrunde Vor 3 Min

Ehemaliger CDU-Generalsekretär: Polenz fordert Kommission zu Aufarbeitung von deutscher Russlandpolitik Vor 9 Min

Teures Tanken, Heizen und Einkaufen: Inflationsrate steigt im April auf 7,4 Prozent Vor 32 Min

### Teues Tanken, Heizen und Einkaufen

## Inflationsrate steigt im April auf 7,4 Prozent

Lieferengpässe, Corona und Russlands Krieg in der Ukraine: die Preise gehen nach oben. Im April klettert die Teuerungsrate laut Statistischem Bundesamt weiter auf 7,4 Prozent – der höchste Wert seit 41 Jahren.

1 Min

### Russisches Gas und Europas Energieversorgung

#### Deutschland muss sich laut Scholz auf plötzlichen Gas-Stopp aus Russland einstellen

Kremlchef Wladimir Putin hat Polen und Bulgarien den Gashahn zugeschraubt. Das geschieht schon bald auch Deutschland passieren, warnte Olaf Scholz. Und

1 Anschläge in Transnistrien: Das neue Pulverfass in Putins Krieg

2 Putins Angriffskrieg: Rückendeckung für die Front – wie die deutsche Panzerhaubitze 2000 der Ukraine helfen könnte

3 Ukraine-Militärs: Es ist unverhindert

# WEB DESIGN PATTERNS

## CARD-BASED LAYOUT

The screenshot shows the YouTube homepage with a grid of video cards. Each card includes a thumbnail, title, channel name, and view count. The cards are arranged in a grid pattern with some spacing between them. The interface features a dark header bar with navigation links like 'Start', 'Entdecken', 'Abos', 'Mediathek', and 'Verlauf'. A search bar and a login button are also visible.

**Card Examples:**

- Mom at my age VS me by TheMermaidscales (5 Mio. Aufrufe)
- Deutscher Gasspeicher in russischen Händen by ZDFheute (70.244 Aufrufe)
- Reds stehen mit großem Zeh im Finale: Liverpool - DAZN UEFA Champions L... by DAZN (672.018 Aufrufe)
- Ed Sheeran, Martin Garrix, Avicii, Kygo, Dua Lipa, The... by Wonder Deep (5092 aktive Zuschauer)
- 20 UPDATE IDEEN, die MINECRAFT UNBEDINGT... by EinfachGustaf (6667 Aufrufe)
- Lucki rastet aus - Käufer geht direkt wieder! Bares... by Dieter Da (12 Mio. Aufrufe)
- Funny Animal Videos 2022 - 🐶 - Funniest Dogs And... by Funny Animals' Club (2,9 Mio. Aufrufe)
- Boogie Woogie Queen Shows Up For An Epic Jam by Brendan Kavanagh (2,8 Mio. Aufrufe)
- Gänsehaut-Moment für den Frieden! by sportstudio (6:59)
- ICH WILL NICHT ALLEIN BLEIBEN by doku (44:08)
- ANGST by Rammstein (0:30)
- Steigt SCHALKE jetzt noch auf? 🤔 BREMEN... by FC Schalke 04 (19:20)

**Trends:**

- Borussia Dortmund – Dynamo Kiew Highlights |...
- Hartmut der Hypochondri und der Tod | WDR Doku
- Rammstein - Angst (Official Trailer)
- Steigt SCHALKE jetzt noch auf? 🤔 BREMEN...

## HERO LAYOUT

The screenshot shows the Apple website product page for the iPhone 13 Pro. The top navigation bar includes links for Store, Mac, iPad, iPhone, Watch, AirPods, TV & Home, Only on Apple, Accessories, Support, and a search bar. Below the navigation is a large hero image of the iPhone 13 Pro. The text "iPhone 13 Pro" is displayed above the hero image. To the right of the hero image, there is a call-to-action button labeled "Buy". Below the hero image, the text "Save on your new iPhone with special carrier deals at Apple. Find your deal >" is visible. The main headline below the hero image is "Oh. So. Pro." followed by a large image of the iPhone 13 Pro.

# BEISPIEL: MASTER-DETAIL LAYOUT

The screenshot shows a Jira Software interface with a master-detail layout. On the left, the main area displays a backlog for 'SAFe Team A Scrum' under the 'Backlog' tab. The backlog is organized by sprints: 'Team A Sprint 1' (7 issues) and 'Team A Sprint 2' (3 issues). Each sprint item includes a thumbnail, a title, a status, and a summary. To the right of the backlog, a detailed view of a selected story is shown in a sidebar. The sidebar header is 'SAFe Team A / STMA-2'. It contains information about 'Team A Story 2', including an estimate of 12. Below this is a 'Structure' section with a 'SAFe Overview' table. The table has columns for 'Key' and 'Summary', with rows for 'SPF-3', 'SPR-11', and 'STMA-2'. A red arrow points from the bottom of the sidebar to the sidebar icon in the main backlog area.

SAFe Team A Scrum

Backlog

QUICK FILTERS: Only My Issues Recently Updated

VERSIONS

EPICS

Team A Sprint 1 7 issues ACTIVE

19/May/16 2:03 PM • 02/Jun/16 2:03 PM Linked pages

STMA-1 Team A Story 1 1.0 - Team A SAFe Epic 11 15

STMA-2 Team A Story 2 1.0 - Team A SAFe Epic 11 12

STMA-6 Team A Story 6 1.0 - Team A SAFe Epic 10 25

STMA-7 Team A Story 7 1.0 - Team A SAFe Epic 4 9

STMA-5 Team A Story 5 1.0 - Team A SAFe Epic 5 12

STMA-4 Team A Story 4 1.0 - Team A SAFe Epic 5 15

STMA-3 Team A Story 3 1.0 - Team A SAFe Epic 6 19

Team A Sprint 2 3 issues Start Sprint

Linked pages

STMA-8 Team A Story 8 1.0 - Team A SAFe Epic 2 15

SAFe Team A / STMA-2

Team A Story 2

Estimate: 12

Structure

SAFe Overview

Key	Summary
SPF-3	SAFe T
SPR-11	S
STMA-2	

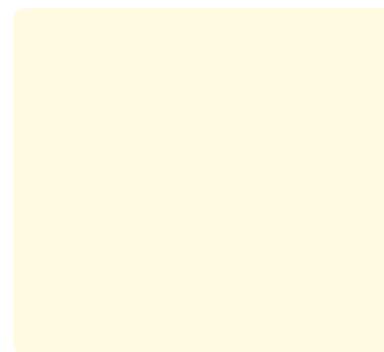
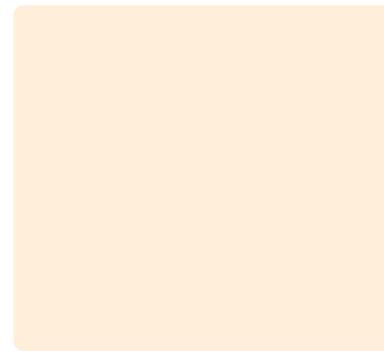
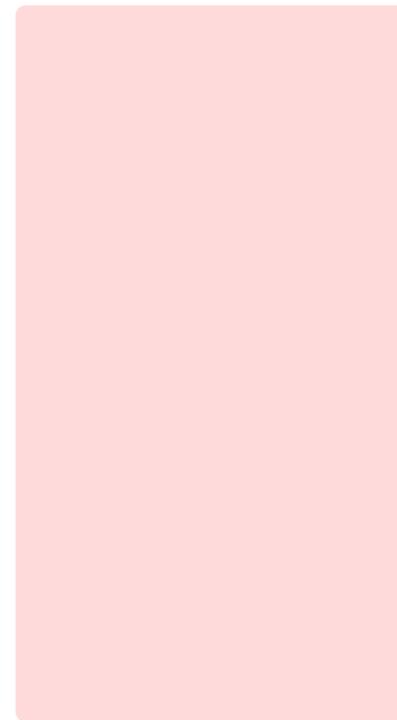
4 items Open Info



## Objects

Name	Type	Show Details
{ } Object 1	Generic	
{ } Object 2	Generic	
{ } Object 3	Generic	
{ } Object 4	Generic	
{ } Object 5	Generic	
{ } Object 6	Generic	
{ } Object 7	Generic	
{ } Object 8	Generic	

### Object 1



# DEMO

Master Detail Layout

# Header

Master View

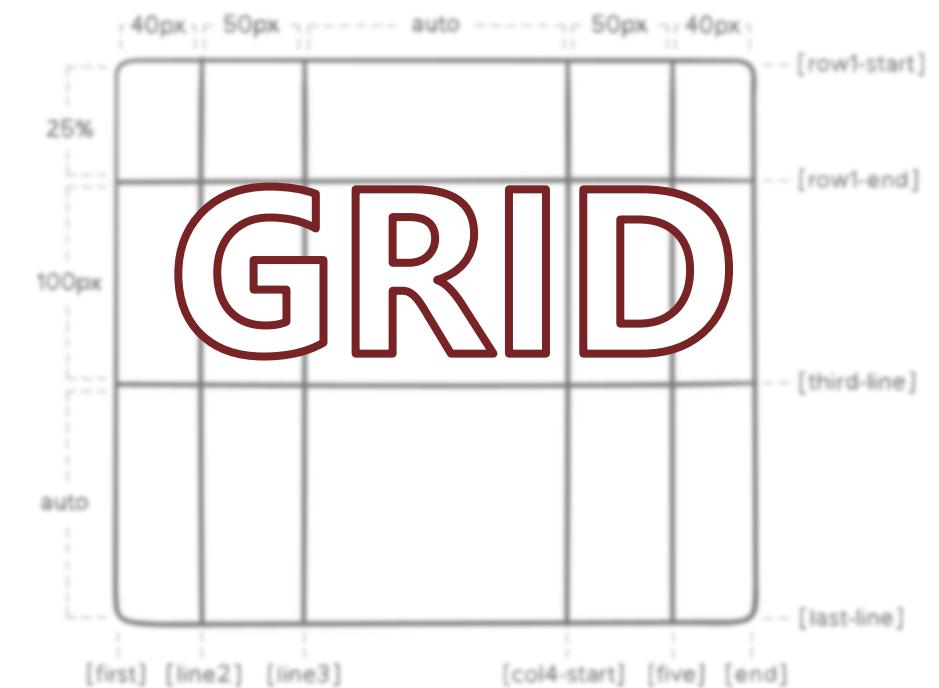
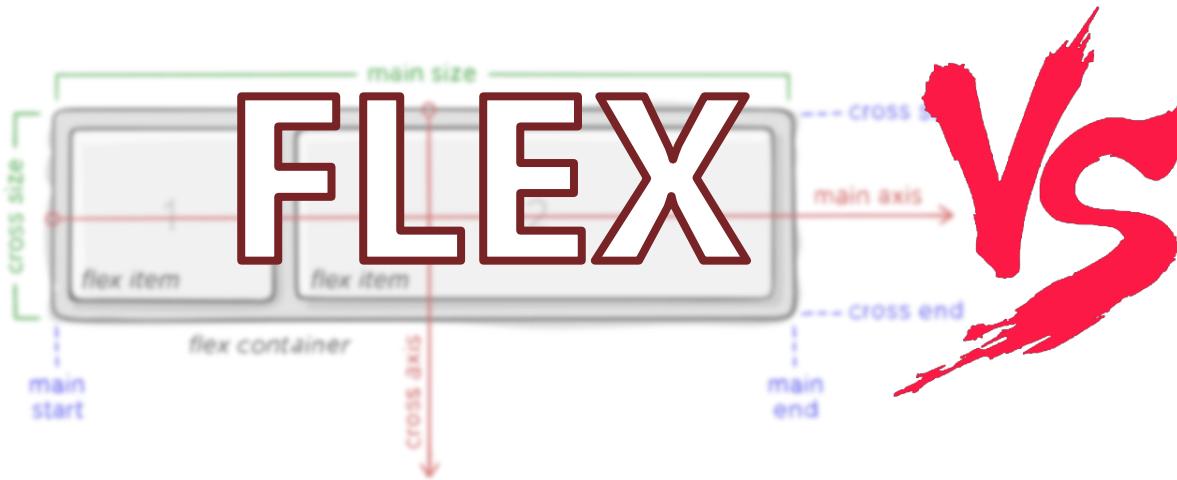
Detail View

The diagram illustrates a user interface for managing objects. At the top, a header bar contains a blue arrow icon on the left and a user profile icon on the right. Below the header, the main area is divided into two sections: the Master View on the left and the Detail View on the right.

**Master View:** This section displays a list of objects. A red border surrounds the entire list area. The title "Objects" is centered at the top. Below the title is a table with three columns: "Name", "Type", and "Show Details". The "Name" column lists "Object 1" through "Object 8", each preceded by a copy/paste icon. The "Type" column shows "Generic" for all objects. The "Show Details" column contains a blue square icon with a white diagonal line. The entire list is set against a light gray background.

**Detail View:** This section shows detailed information for a selected object. A yellow border surrounds the detail area. The title "Object 1" is centered at the top. To the right of the title is a small "X" icon. The detail view is divided into four colored sections: a purple top section, a pink middle-left section, an orange middle-right section, and a yellow bottom section. A double vertical line icon is positioned between the pink and orange sections.

# TECHNISCHE UMSETZUNG



# DEMO

Flex und Grid

# POSITIONIERUNG



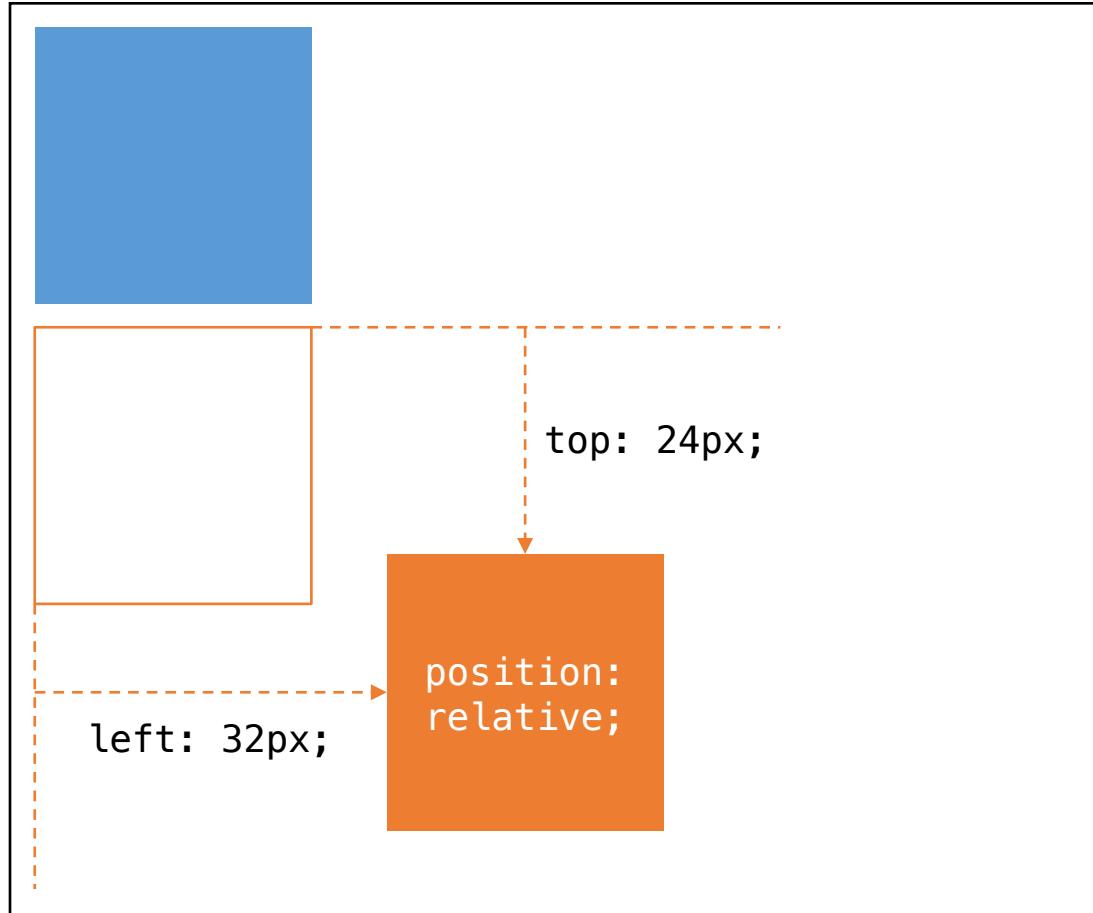
```
position:  
static;
```

A solid orange rectangular box containing the CSS declaration "position: static;".

## STATIC

- Default Zustand
- Folgt dem normalen Flow der Seite

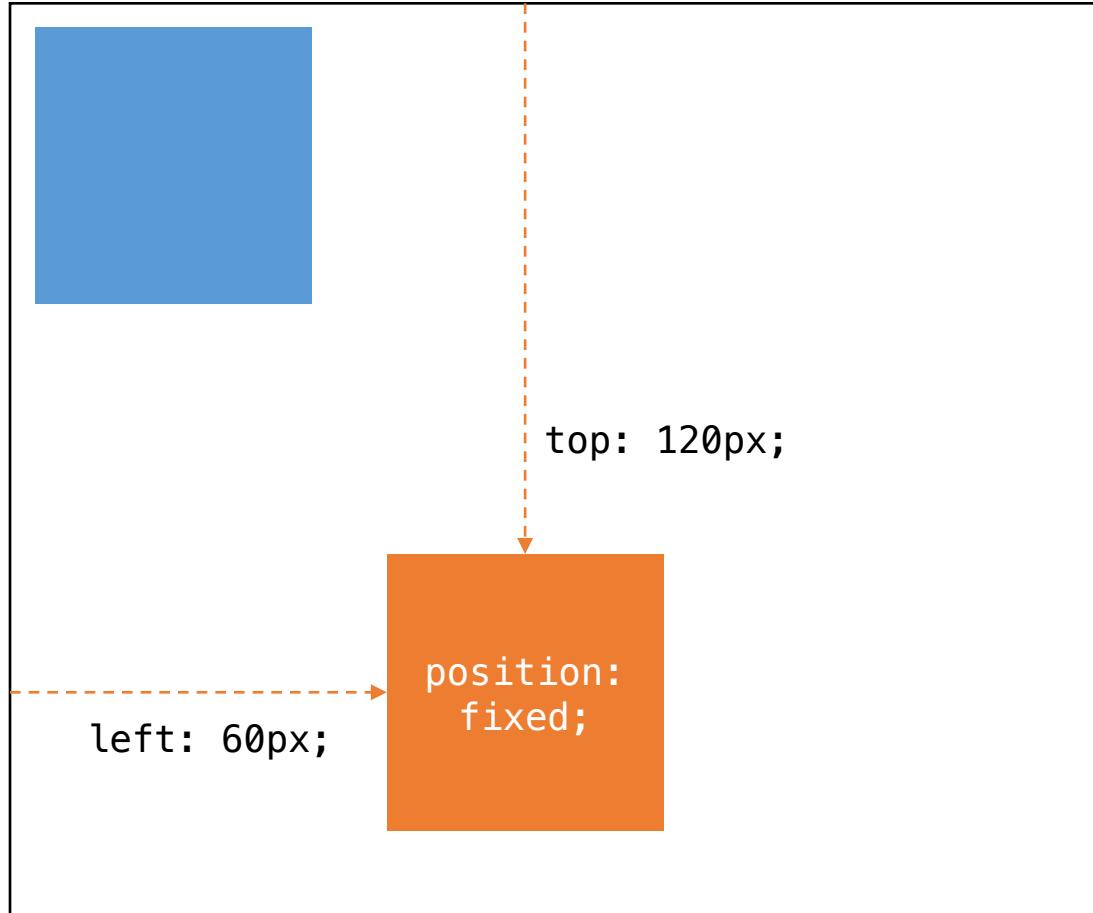
# POSITIONIERUNG



## RELATIVE

- relativ zur eigentlichen Position im Flow
- kann über top, left, bottom und right positioniert werden

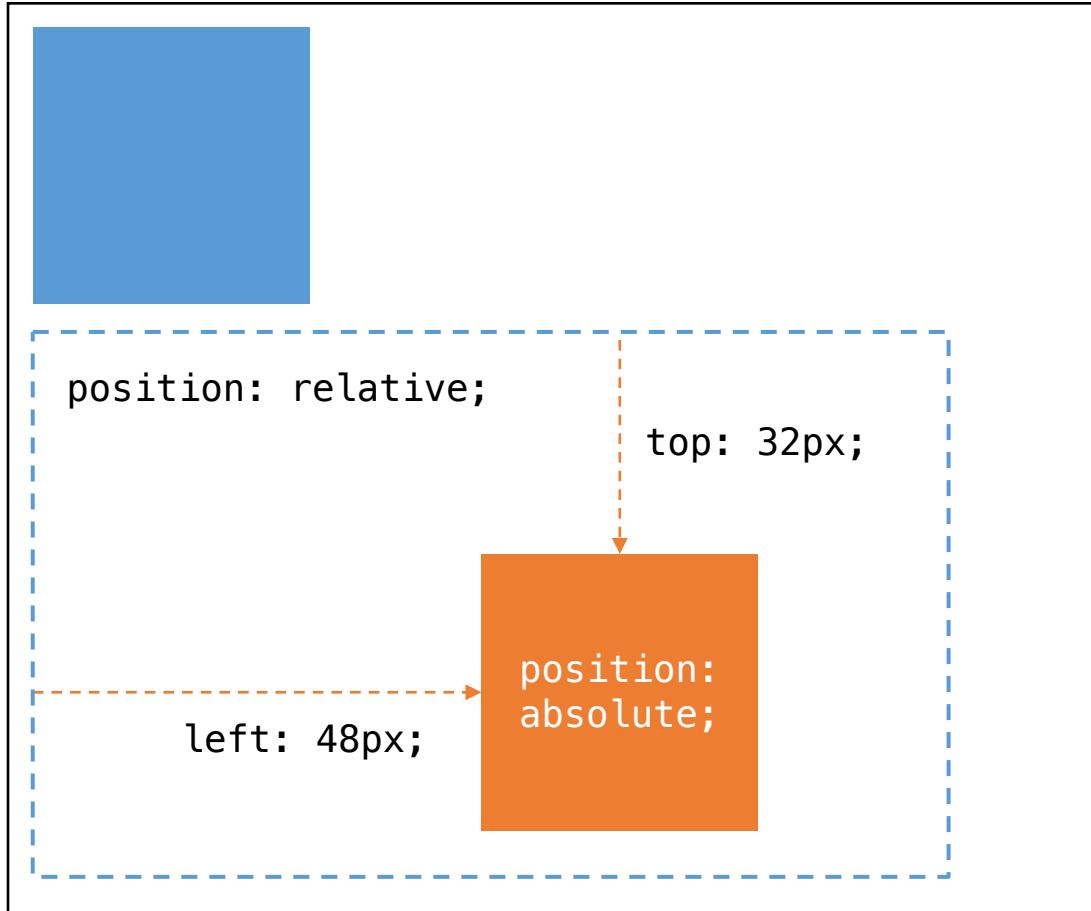
# POSITIONIERUNG



## FIXED

- unabhängig vom eigentlichen Flow
- relativ zum Viewport positioniert (scrollt nicht mit)
- kann über top, left, bottom und right positioniert werden

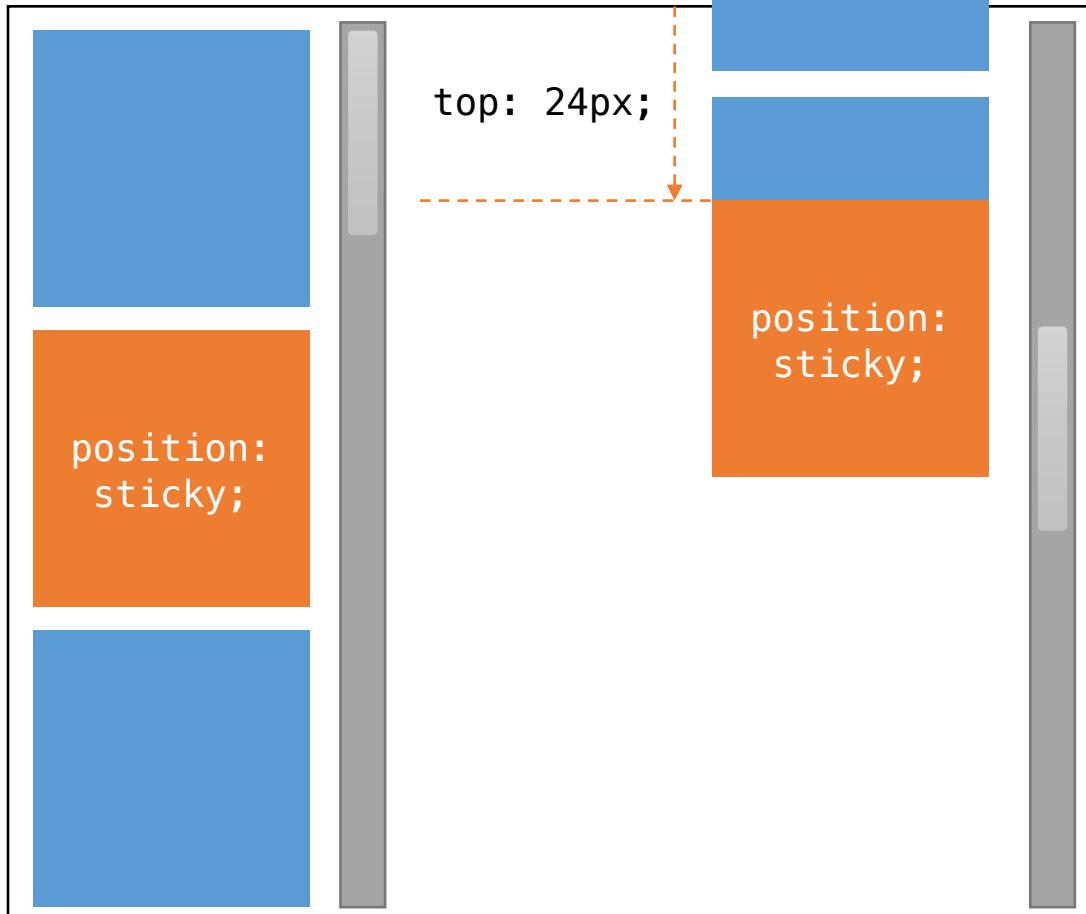
# POSITIONIERUNG



## ABSOLUTE

- unabhängig vom eigentlichen Flow
- relativ zum nächsten positionierten Vorfahren im DOM oder zum Body (wenn nicht vorhanden)
- kann über top, left, bottom und right positioniert werden

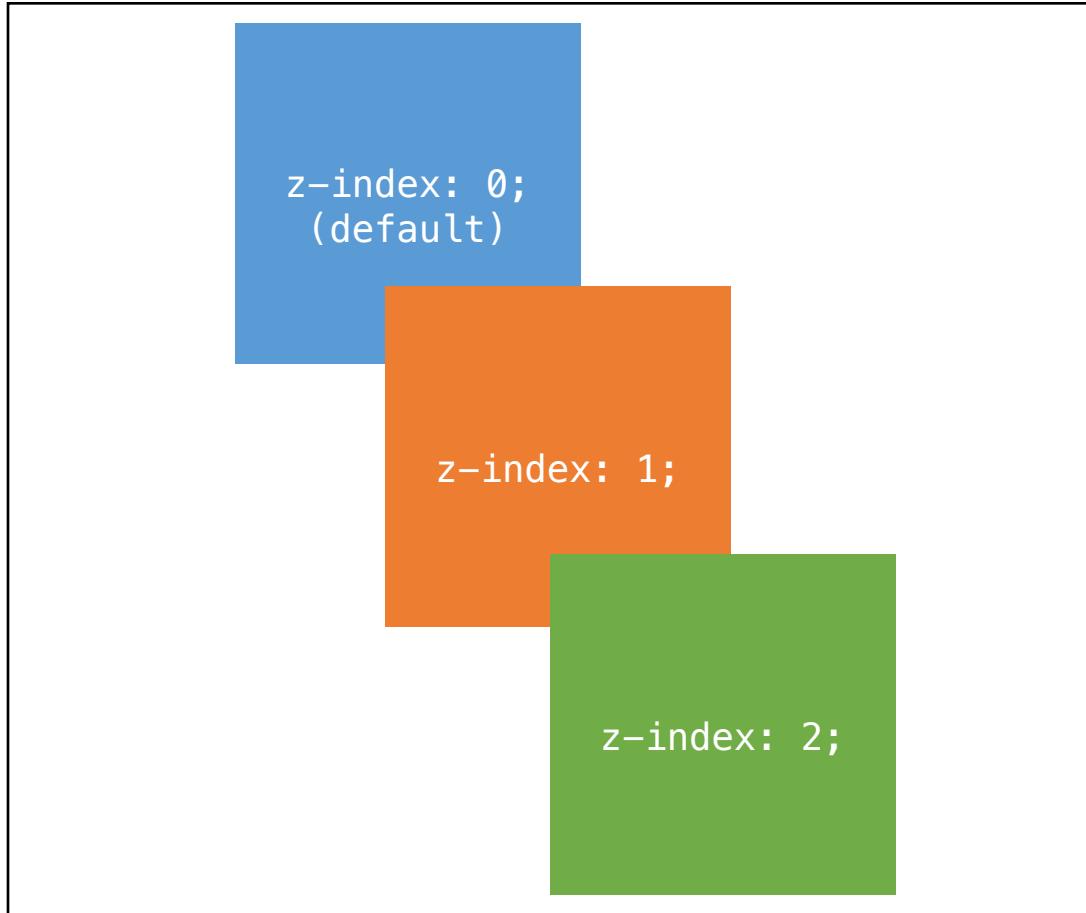
# POSITIONIERUNG



## STICKY

- unabhängig vom eigentlichen Flow
- relativ zur Scroll-Position
- Wechselt von relative zu fixed, wenn der angegebene Offset erreicht wurde
- Offset kann über top, left, bottom und right definiert werden

# POSITIONIERUNG



## Z-INDEX

- Positionierte Elemente können auch übereinander liegen
- z-index gibt die Reihenfolge überlappender Elemente an
- z.B. für Overlays

# DEMO

## Positionierung

# RESPONSIVENESS

- RESIZE
- REFLOW
- REPOSITION
- REDESIGN



# RESPONSIVENESS

## MEDIA QUERIES

```
@media screen and (max-width: 600px) {  
    /* styles in here */  
}
```

- Media Type (optional)
- Media Features (height, width, orientation, ...)
- Verknüpfung durch logische Operatoren (not, and und only)

# RESPONSIVENESS

```
● ● ●  
/* HTML */  
<div class="container">  
  <div class="card"></div>  
</div>  
  
/* CSS */  
.container {  
  container-type: inline-size; ←  
  container-name: card-container; ←  
}  
  
.card {  
  background: blue;  
}  
  
@container card-container (min-width: 500px) {  
  .card {  
    background: orange;  
  }  
}
```

## CONTAINER QUERIES

- Seit 2023 für alle gängigen Browser verfügbar
- Queries auf einzelnen Elementen
- Container Type (size, inline-size, normal)
- Container Name (optional)

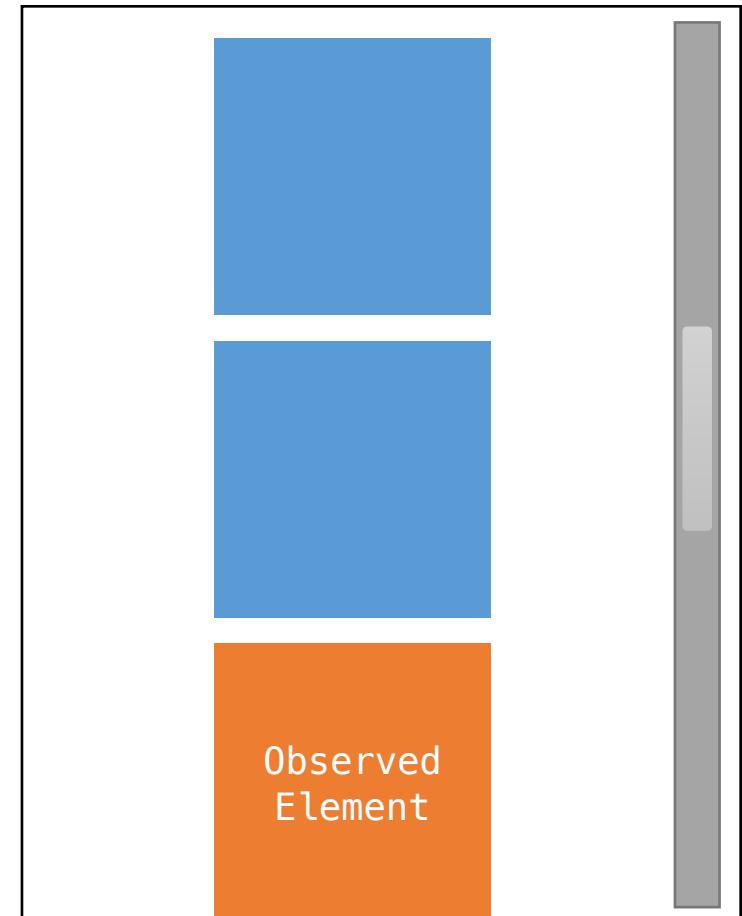
# DEMO

Responsiveness

# INTERSECTION OBSERVER

## SZENARIO

- Es soll etwas passieren, wenn ein Element im Sichtbereich erscheint



# INTERSECTION OBSERVER API

## FUNKTIONSWEISE

- Callback der ausgelöst wird, wenn ein Element im Viewport erscheint

# INTERSECTION OBSERVER API

```
let options = {
  root: window.document,
  rootMargin: "0px",
  threshold: 0.5,
};
let observer = new IntersectionObserver(callback, options);
```

```
let callback = (entries, observer) => {
  entries.forEach((entry) => {
    // Each entry describes an intersection change
    // for one observed target element:
    //   entry.boundingClientRect
    //   entry.intersectionRatio
    //   entry.intersectionRect
    //   entry.isIntersecting
    //   entry.rootBounds
    //   entry.target
    //   entry.time
  });
};
```

```
document.querySelectorAll("*").forEach(element => {
  observer.observe(element);
});
```

# DEMO

## Intersection Observer API

<https://codepen.io/joergneumann/pen/LYgeozm>

# CSS LAYOUT API

## HINTERGRUND

- Mit eigener Logik in den Layout-Prozess eingreifen
- Logik wird in Form von Worklets implementiert und registriert

## W3C STATUS

- Status: [First Public Working Draft](#)

**Ausprobieren in Chrome**

- chrome://flags/  
Feature: "Experimental Web  
Platform features" einschalten

Engine	Google Chrome	Microsoft Edge	Opera	Samsung Internet	Mozilla Firefox	Apple Safari	Spec
Layout API (Explainer Demos)	Blink		Gecko	WebKit	-		
	Partial support (Canary) <a href="#">Details</a>	Partial support (Canary) <a href="#">Details</a>	Partial support (Developer) <a href="#">Details</a>	No signal	Under consideration <a href="#">Details</a>	Under consideration <a href="#">Details</a>	First Public Working Draft <a href="#">Spec</a>

# DEMO

CSS Layout API

# FAZIT

LAYOUT IST VIELSCHICHTIG

Q & A

# RESSOURCEN

- Houdini Specifications  
<https://drafts.css-houdini.org>
- Google Chrome Labs Houdini Samples  
<https://github.com/GoogleChromeLabs/houdini-samples>  
<https://googlechromelabs.github.io/houdini-samples>
- CSS Properties & Values API  
<https://web.dev/css-props-and-vals>
- CSS Paint Polyfill  
<https://github.com/GoogleChromeLabs/css-paint-polyfill>
- Tutorials & Worklet Library  
<https://houdini.how>