



匠人学院
jiangren.com.au

HTML & CSS

www.jiangren.com.au

Css Preprocessor



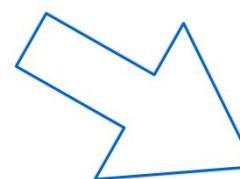
Less



Sass



PostCSS



Sass



```
npm install sass -g
```

```
sass source/stylesheets/index.scss build/stylesheets/index.css
```



Sass CSS预处理器 preprocessor



Sass

```
nav {  
    ul {  
        margin: 0;  
        padding: 0;  
        list-style: none;  
    }  
  
    li { display: inline-block; }  
  
    a {  
        display: block;  
        padding: 6px 12px;  
        text-decoration: none;  
    }  
}
```



```
nav ul {  
    margin: 0;  
    padding: 0;  
    list-style: none;  
}  
  
nav li {  
    display: inline-block;  
}  
  
nav a {  
    display: block;  
    padding: 6px 12px;  
    text-decoration: none;  
}
```

Sass: 命令



nested: 嵌套缩进的css代码，它是默认值。

expanded: 没有缩进的、扩展的css代码。

compact: 简洁格式的css代码。

compressed: 压缩后的css代码。

```
sass --style compressed ./style.scss ./style.min.css
```

可以查看下压缩后的效果，生产环境Production时候使用

SASS监听某个文件或目录

```
// watch a file
```

```
sass --watch input.scss:output.css
```

```
// watch a directory
```

```
sass --watch app/sass:public/stylesheets
```

Lab

Sass

根Scss文件

index.scss

main.scss

..



Imports



Sass

@import 'theme';
will replace the same-name variable;

创建**variables.scss**

```
@import 'variables';
```

Variables

变量以\$开头



set some common attributes that can be used repeatedly later
e.g primary-color; danger-color; basic-width; font-stack;

variables.scss

```
$primaryColor: #efffc;
```

```
body {  
    background: $primaryColor;  
}
```

```
// Breakpoints  
// Usage: as @include media($small)  
$mobileSm: new-breakpoint(max-width $mobileSm);  
$tiny: new-breakpoint(max-width $tinyMobileMax);  
$mobile: new-breakpoint(max-width $mobileMax);  
$tinyOnly: new-breakpoint(max-width $screenSmMin);  
$small: new-breakpoint(min-width $screenSmMin);  
$medium: new-breakpoint(min-width $screenMdMin);  
$mediumOnly: new-breakpoint(max-width $screenMdMin);  
$deviceMax: new-breakpoint(min-width $deviceMaximum);  
$large: new-breakpoint(min-width $screenLgMin);
```

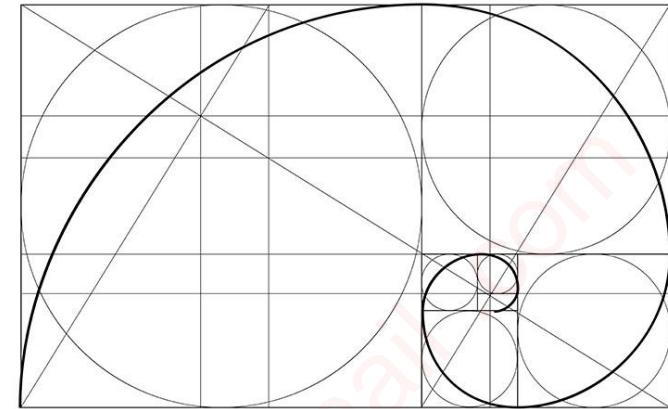
```
// Media queries breakpoints  
$screenSmMin: 768px !default; // Small  
$screenMdMin: 992px !default; // Medium  
$screenLgMin: 1200px !default; // Large
```

Math

Sass

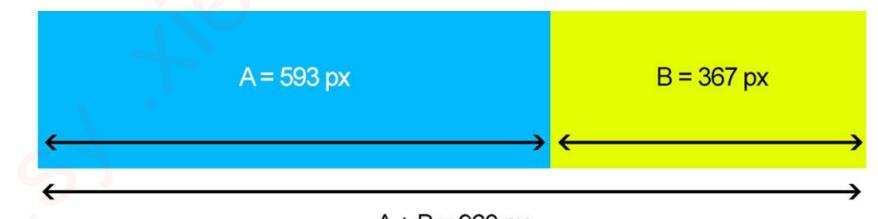
```
$container-width: 100%;  
  
.container {  
    width: $container-width;  
}  
  
.col-4 {  
    width: $container-width / 4;  
}
```

golden ratio



Golden Ratio

$$A/B = (A+B)/A = 1.618033987 = \Phi$$



width:300px and another of 300
 $* 1.6180 \approx 485\text{px}$



Nesting

Sass

```
a.myAnchor {  
    color: blue;  
    &:hover {  
        text-decoration: underline;  
    }  
    &:visited {  
        color: purple;  
    }  
}
```



@extend 继承

Sass

```
.class1 {  
    border: 1px solid #ddd;  
}  
  
.class2 {  
    @extend .class1;  
    font-size:120%;  
}
```



Mixins

Sass



使用@Mixin命令，定义一个代码块。

```
@mixin media($queryString){  
}  
}
```

使用@include命令，调用这个mixin。

```
div {  
    @include media;  
}
```

not common

Mixins: Lab



写一个media queries的

Mixin

```
// media queries
@mixin MQ($canvas) {
  @if $canvas==S {
    @media only screen and (max-width: $S) {
      @content;
    }
  }
  @else if $canvas==M {
    @media only screen and (max-width: $M) {
      @content;
    }
  }
  @else if $canvas==L {
    @media only screen and (max-width: $L) {
      @content;
    }
  }
}
```

Sass

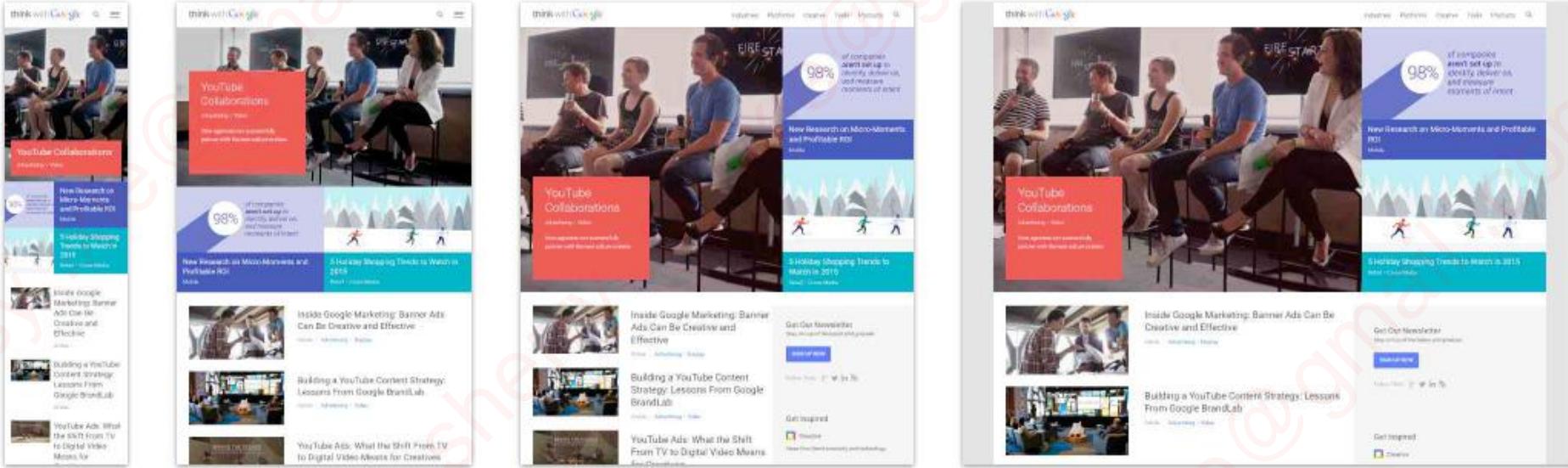
要求

color: lighten(#6b717f, 20%)
the color is lighter 20%

后面所有的css均使用Sass



Responsive Web Design



<https://developers.google.com/web/fundamentals/design-and-ui/responsive/videos/resize.webm>

Responsive Web Design



Set the viewport

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

- Use the meta viewport tag to control the width and scaling of the browser's viewport.
- Include width=device-width to match the screen's width in device-independent pixels.
- Include initial-scale=1 to establish a 1:1 relationship between CSS pixels and device-independent pixels.
- Ensure your page is accessible by not disabling user scaling.

Responsive Web Design



Flexible Images

- img {
- max-width:100%;
- }

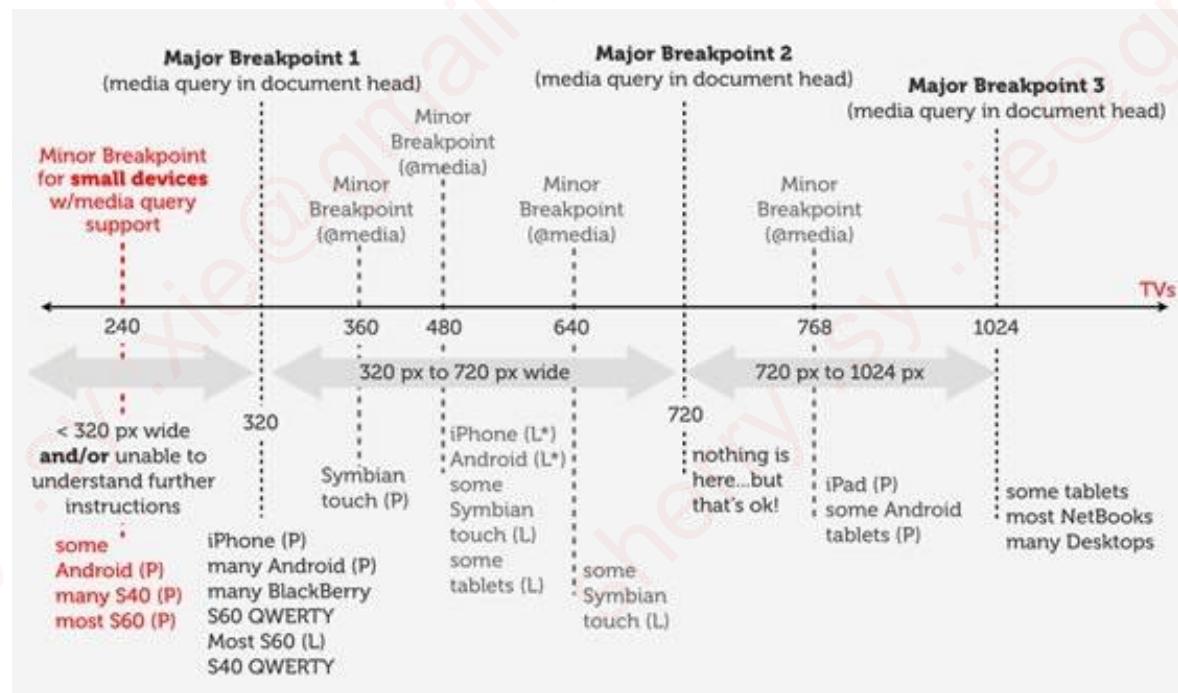
```
/* iPhone and Smartphones (portrait and landscape) */
@media screen and (min-device-width : 320px) and (max-device-width: 480px) {
    //你的样式放在这里...
}
```

CSS3 Media Queries

- @media screen and (max-width: 600px) {
• //你的样式放在这里....
• }

- @media screen and (min-width: 900px) {
• //你的样式放在这里...
• }

Responsive Web Design



```
/*===== Mobile First Method =====*/  
  
/* Custom, iPhone Retina */  
@media only screen and (min-width : 320px) {  
  
}  
  
/* Extra Small Devices, Phones */  
@media only screen and (min-width : 480px) {  
  
}  
  
/* Small Devices, Tablets */  
@media only screen and (min-width : 768px) {  
  
}  
  
/* Medium Devices, Desktops */  
@media only screen and (min-width : 992px) {  
  
}  
  
/* Large Devices, Wide Screens */  
@media only screen and (min-width : 1200px) {  
  
}
```

Flexbox



- the ability to alter its items' width/height (and order) to best fill the available space (mostly to accommodate to all kind of display devices and screen sizes)
- A flex container expands items to fill available free space, or shrinks them to prevent overflow.

Demo: <https://codepen.io/team/css-tricks/pen/EKEYob>

Demo: <https://codepen.io/enxaneta/full/adLPwv>

Ref <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

Flexbox



Basic Examples



Standard Media Object

Phasellus vel felis purus. Aliquam consequat pellentesque dui, non mollis erat dictum sit amet. Curabitur non quam dictum, consectetur arcu in, vehicula justo. Donec tortor massa, eleifend nec viverra in, aliquet at eros. Mauris laoreet condimentum mauris, non tempor massa fermentum ut. Integer gravida pharetra cursus. Nunc in suscipit nunc.



Standard Media Object

Donec imperdiet sem leo, id rutrum risus aliquam vitae. Cras tincidunt porta mauris, vel feugiat mauris accumsan eget.



Media Object Reversed

Phasellus vel felis purus. Aliquam consequat pellentesque dui, non mollis erat dictum sit amet. Curabitur non quam dictum, consectetur arcu in, vehicula justo. Donec tortor massa, eleifend nec viverra in, aliquet at eros. Mauris laoreet condimentum mauris, non tempor massa fermentum ut. Integer gravida pharetra cursus. Nunc in suscipit nunc.

Non-images



Using Icons

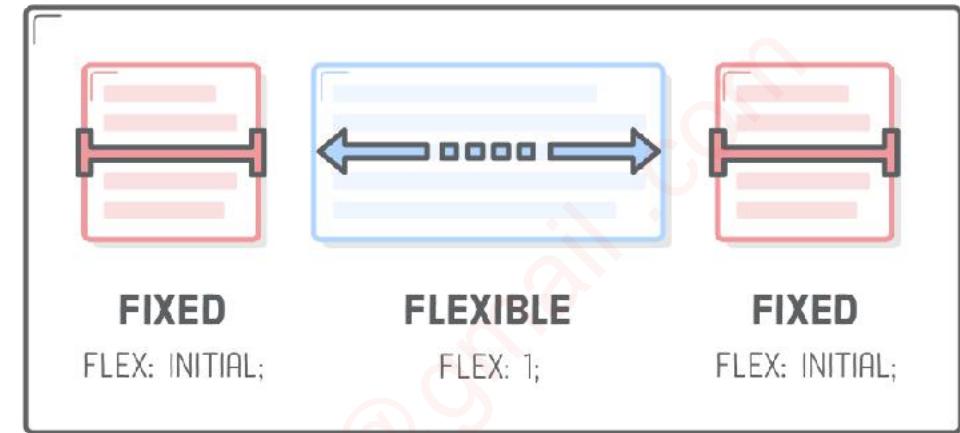
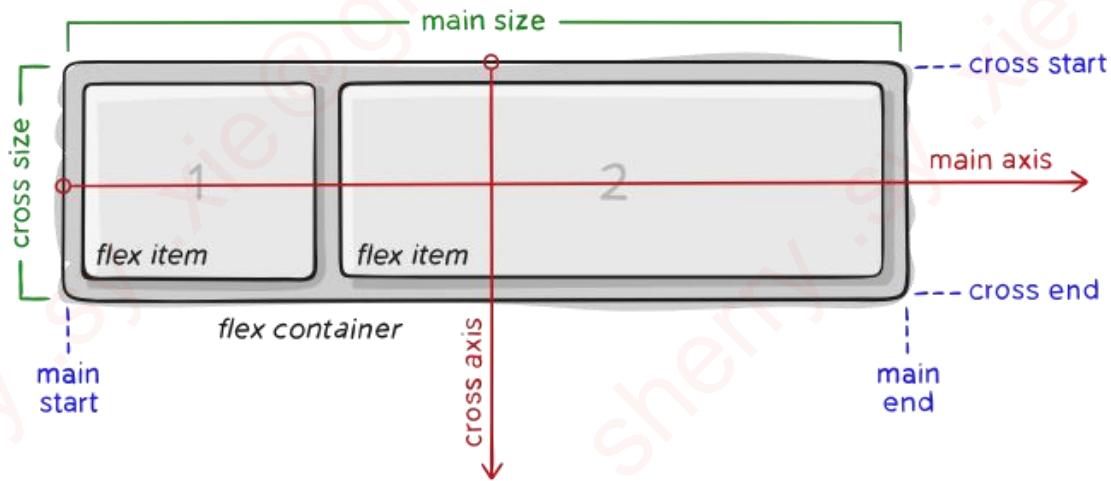
Donec imperdiet sem leo, id rutrum risus aliquam vitae. Vestibulum ac turpis non lacus dignissim dignissim eu sed dui.



Vertically Centering the Figure

Nunc nec fermentum dolor. Duis at iaculis turpis. Sed rutrum elit ac egestas dapibus. Duis nec consequat enim.

Flexbox



flex: 1

flex: 0 1 auto

flex-grow, flex-shrink, flex-basis

Ref <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

Flexbox



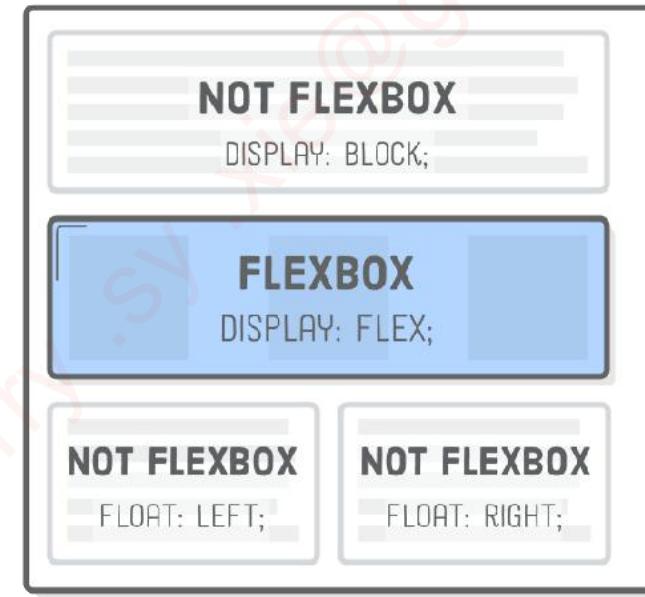
“FLEX CONTAINER”



“FLEX ITEMS”

<https://cssreference.io/flexbox/>

Flex containers

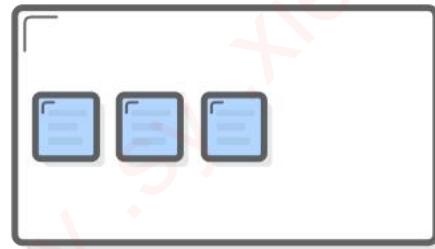


Aligning a flex item

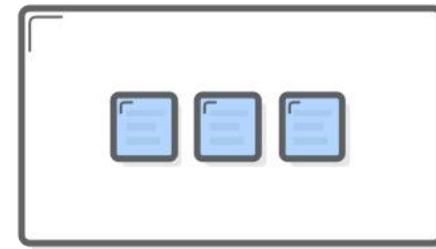


justify-content :

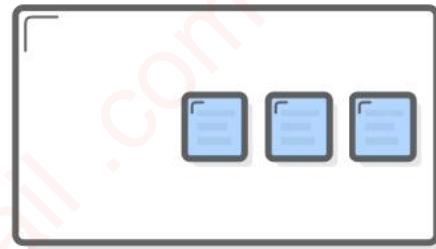
- center
- flex-start
- flex-end
- space-around
- space-between



FLEX-START



CENTER



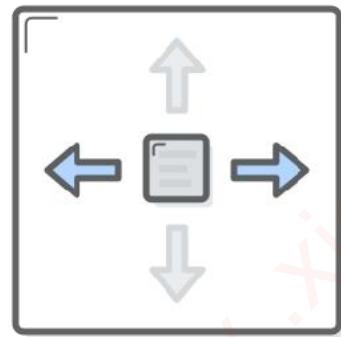
FLEX-END

cross-axis (vertical) alignment

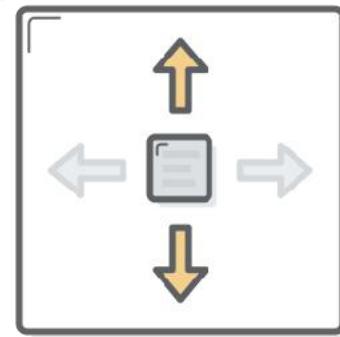


align-items:

- center
- flex-start (top)
- flex-end (bottom)
- stretch
- baseline



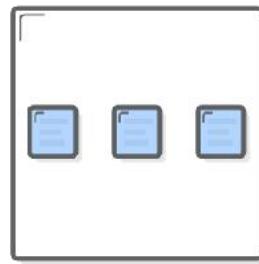
JUSTIFY-CONTENT



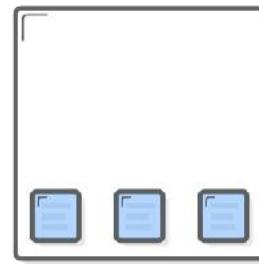
ALIGN-ITEMS



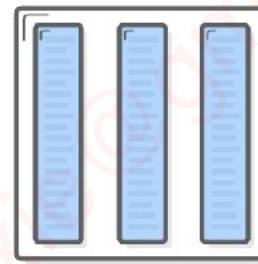
FLEX-START



CENTER

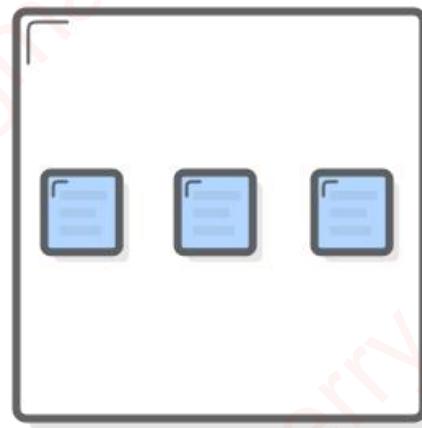


FLEX-END



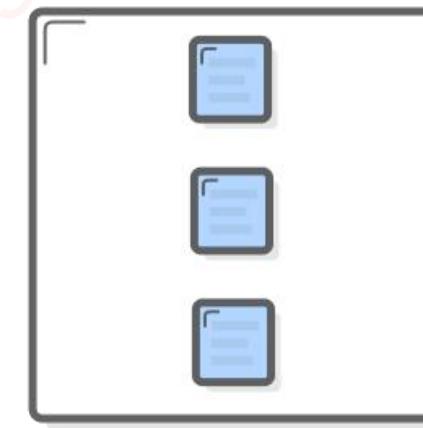
STRETCH

flex container direction



ROW

FLEX-DIRECTION: ROW;



COLUMN

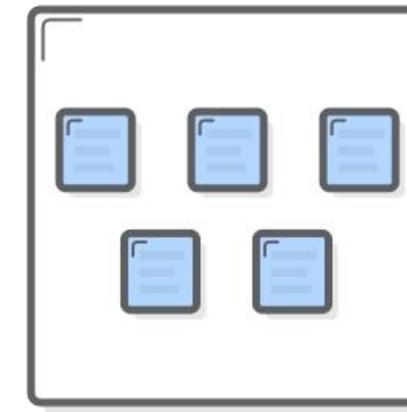
FLEX-DIRECTION: COLUMN;

wrapping flex items



NO WRAPPING

FLEX-WRAP: NOWRAP;



WITH WRAPPING

FLEX-WRAP: WRAP;

Flex item order

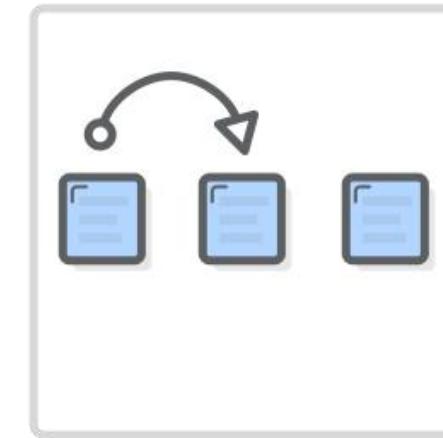


FLEX-DIRECTION

(WHOLE CONTAINER)

flex grow
flex shrink

try on flexbox playground [codepen](#)



ORDER

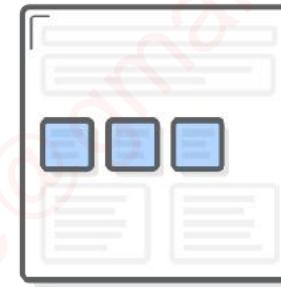
(INDIVIDUAL ITEMS)

<https://cssreference.io/flexbox/>

Flexbox



ALIGNMENT



DIRECTION



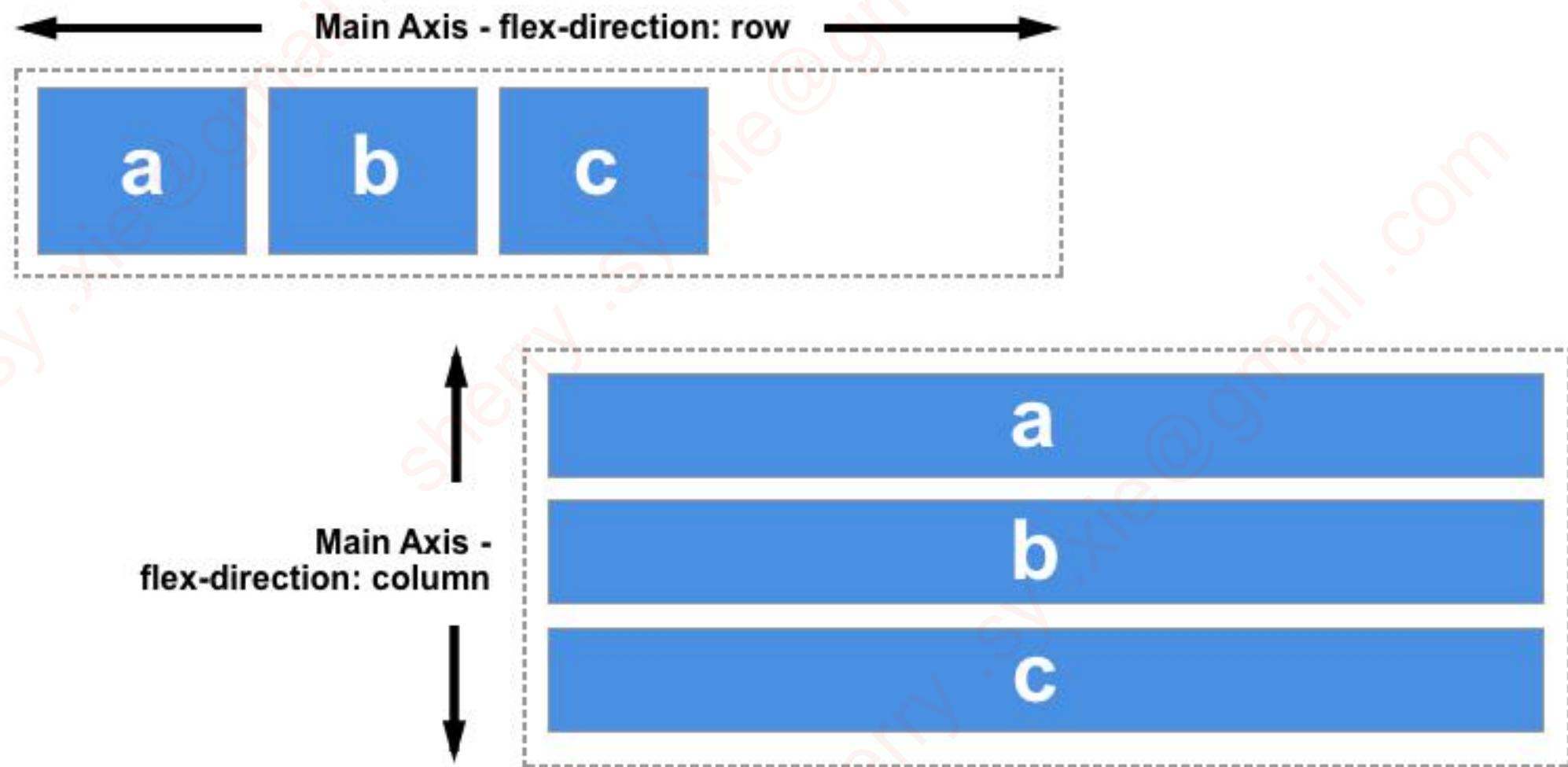
ORDER



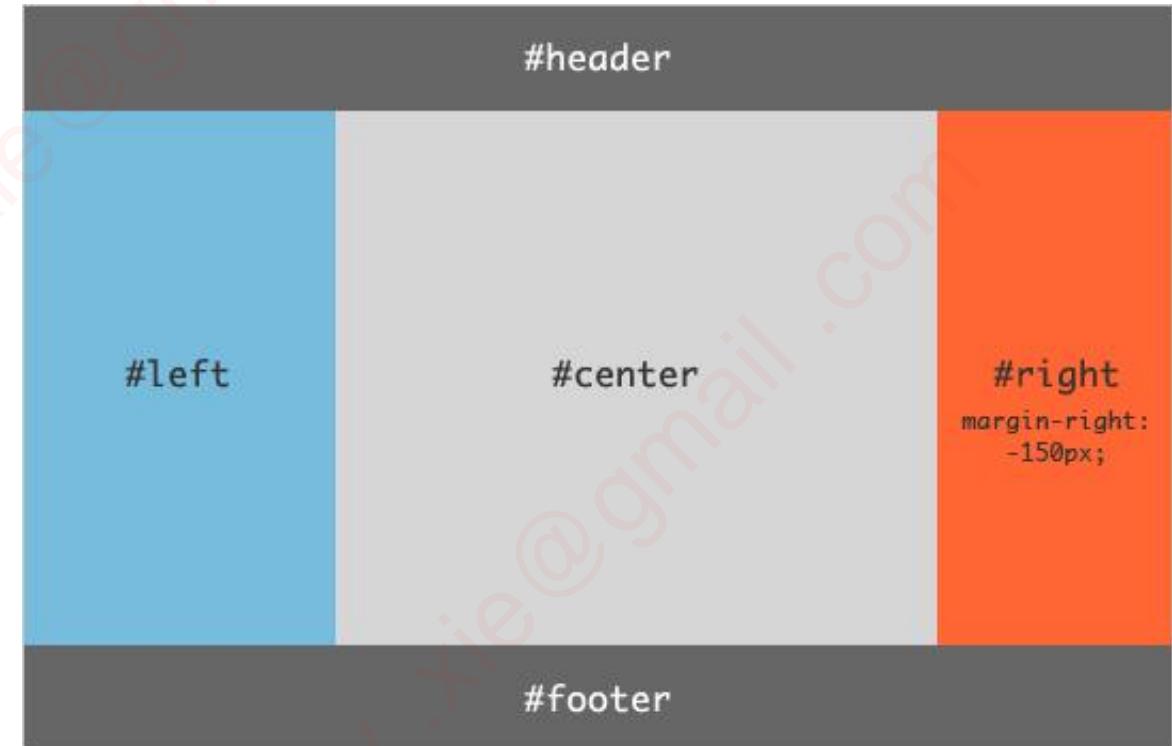
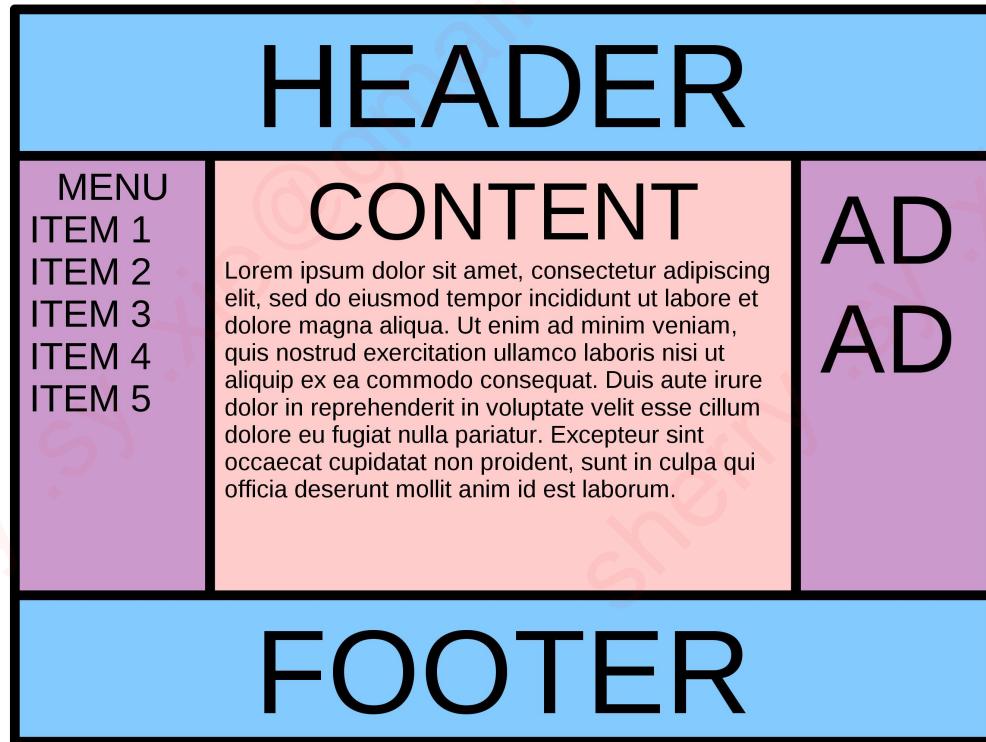
SIZE

<https://cssreference.io/flexbox/>

Flexbox – The main axis



Holy grail – Lab



Flexbox – Practice



Practice :
Main width: 900px

Popular CSS Library



[Bootstrap](#)



[Foundation](#)



[Pure CSS](#)



[Mobi CSS](#)



[Semantic UI](#)

tailwindcss.com

推荐阅读 [The 5 Most Popular Frontend Frameworks of 2017 Compared](#)



[Bootstrap](#)





- Bootstrap4 是 Bootstrap 的最新版本，与 Bootstrap3 相比拥有了更多的具体的类以及把一些有关的部分变成了相关的组件。同时 Bootstrap.min.css 的体积减少了40%以上。Bootstrap4 使用 flexbox布局，Bootstrap3使用float，width布局
- Bootstrap4 放弃了对 IE8 以及 iOS 6 的支持，现在仅仅支持 IE9 以上 以及 iOS 7 以上版本的浏览器。如果对于其中需要用到以前的浏览器，那么请使用 Bootstrap3。

Bootstrap



	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

```
<div class="row">
  <div class="col-sm-8">col-sm-8</div>
  <div class="col-sm-4">col-sm-4</div>
</div>
<div class="row">
  <div class="col-sm">col-sm</div>
  <div class="col-sm">col-sm</div>
  <div class="col-sm">col-sm</div>
</div>
```

Bootstrap: Container



Bootstrap comes with three different containers:

- `.container`, which sets a `max-width` at each responsive breakpoint
- `.container-fluid`, which is `width: 100%` at all breakpoints
- `.container-{breakpoint}`, which is `width: 100%` until the specified breakpoint

Bootstrap: row col



	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

```
<div class="row">
  <div class="col-sm-8">col-sm-8</div>
  <div class="col-sm-4">col-sm-4</div>
</div>
<div class="row">
  <div class="col-sm">col-sm</div>
  <div class="col-sm">col-sm</div>
  <div class="col-sm">col-sm</div>
</div>
```



UI Design principles

material.io/design

User familiarity

Consistency

Minimal surprise



Typography

collection of the font

- primary typeface,
- eventually secondary typeface (no need for a third one—two typefaces are usually enough, really),
- chosen font families (regular, italic, bold, semibold, light, ...),
- text styles examples (headings, paragraphs, info texts, ...).



<https://fonts.google.com/>

Typefaces

Source Sans Pro

Source Sans Pro is an open-source sans serif typeface created for legibility in UI design. With a variety of weights that read easily at all sizes, Source Sans Pro provides clear headers as well as highly-readable body text.

Inspired by twentieth century American graphic typeface design, its slender but open letters offer a clean and friendly simplicity. Advanced hinting allows Source Sans Pro to render well on Windows systems which run ClearType, and across browsers and devices. Moreover, it supports a variety of languages and character sets, including Western and European language, Vietnamese, Simplified Romanization of Chinese, and Navajo.

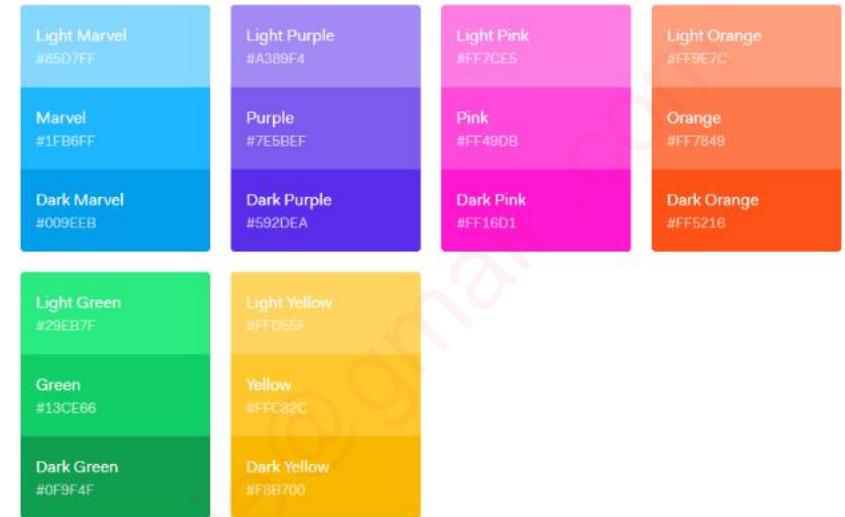
Aa

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789



Color Palette

- primary colours,
- secondary colours,
- complementary colours,
- alerts colours (warnings, errors, information validations, ...),
- additional colour elements (for example gradients or semi-transparent overlays).



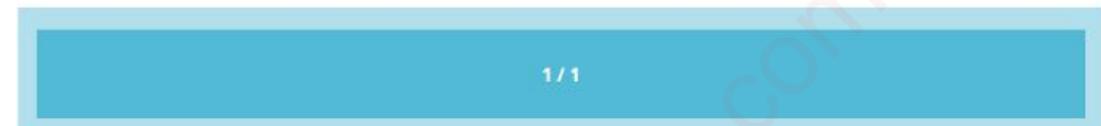


Spacing and Positioning

- grid system (sizes, gutters, nesting, ...),
- spacing rules and spacing patterns,
- spacing helpers (reusable constants for vertical and horizontal gutters between UI elements which can be used in the code).

Grid sizes

Size 1 of 1



Size 1 of 2

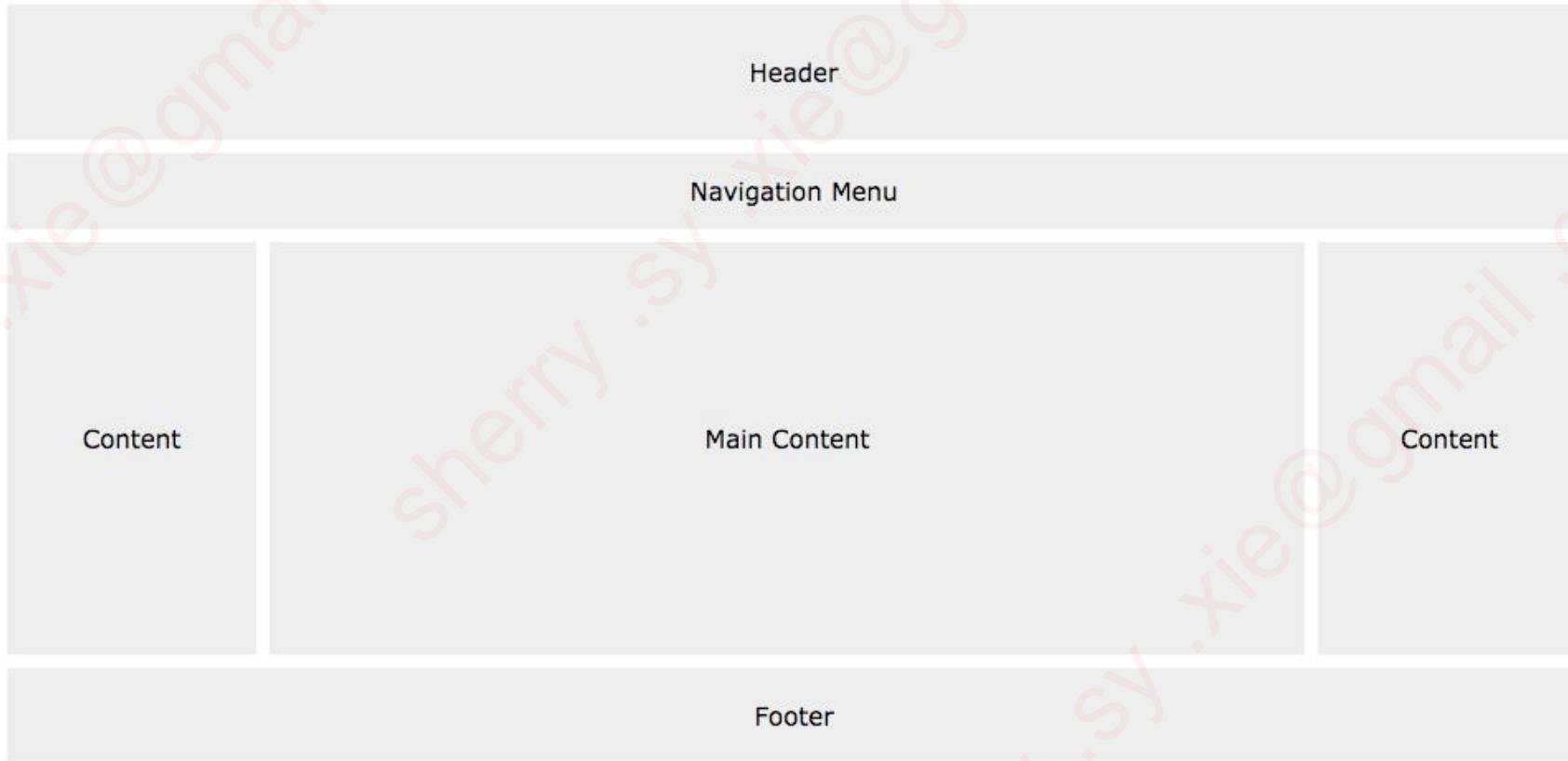


Size 1 of 3





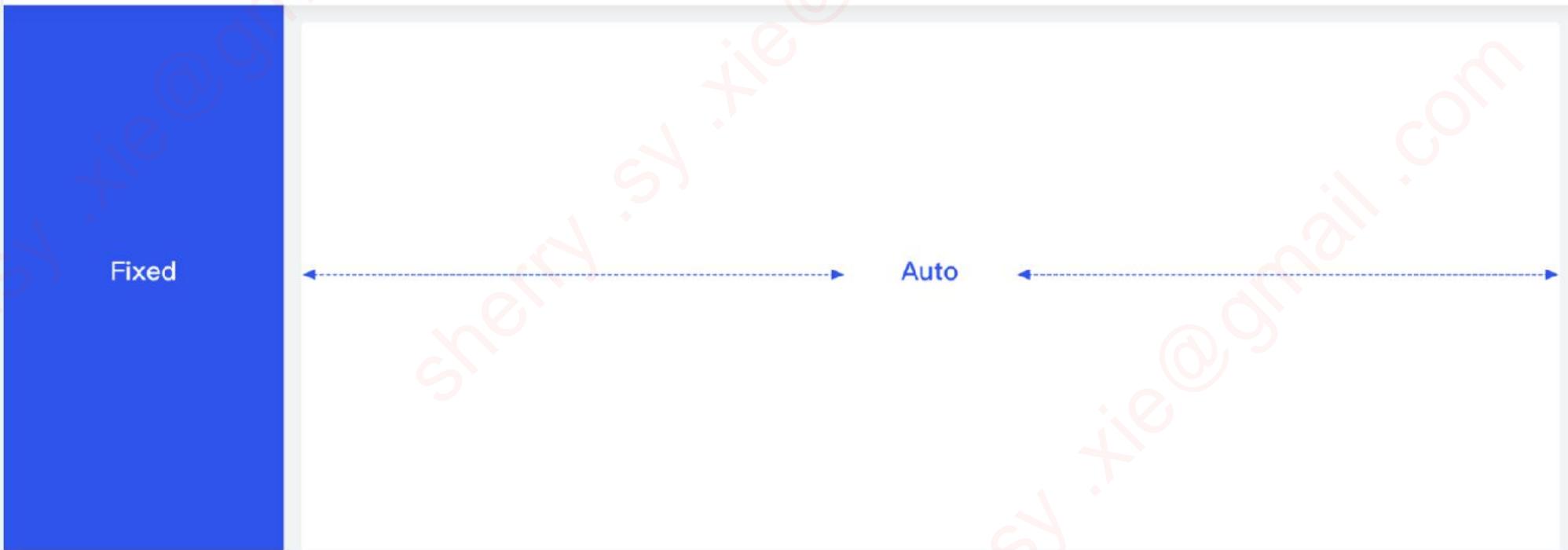
Layout





Layout

导航目录一 导航目录二 导航目录三 导航目录四





Layout



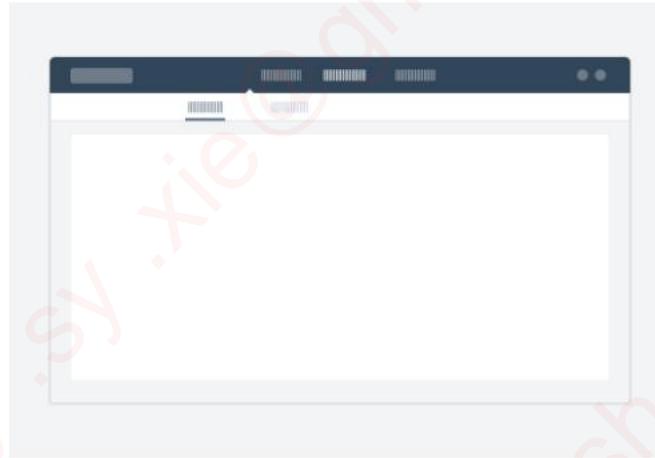


UI Elements

- navigation (main nav, secondary nav, breadcrumbs, pagination, ...),
- buttons (primary/secondary action buttons, tools buttons, ...),
- alert messages (warnings, errors, information, validations, ...),
- forms (fields, radio buttons, checkboxes, poplists, infield validation, ...),
- markers (person types markers, patient states markers, document types, ...),
- additional elements (calendar, patient timeline, patients lists, documents lists, cards, modal panels, ...).



Navigation



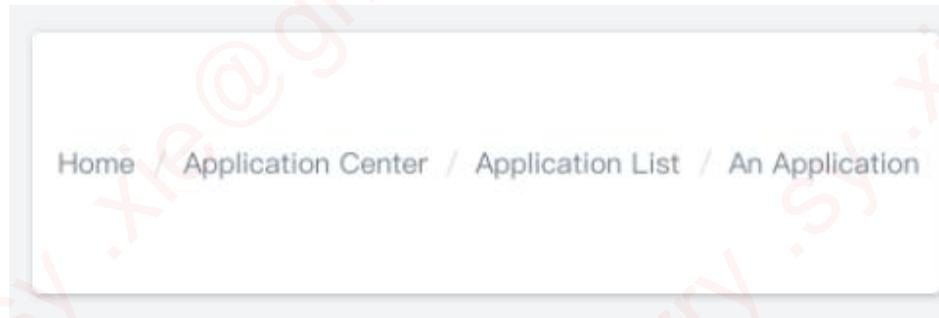
Top Navigation



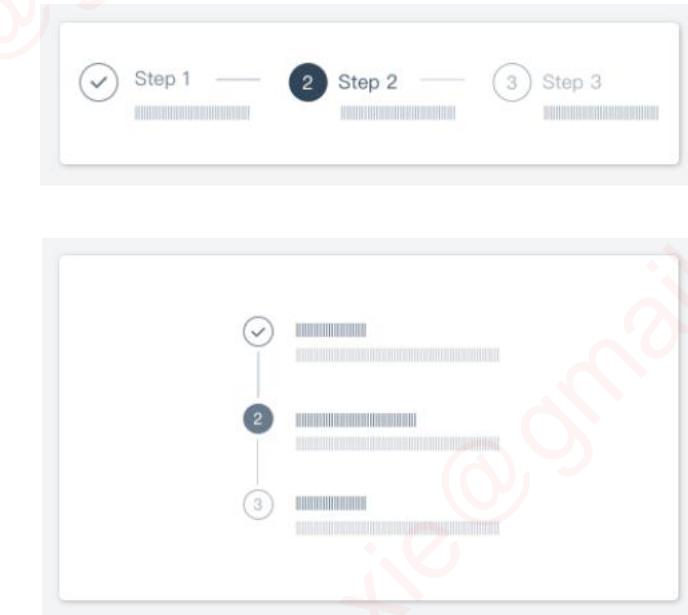
Side Navigation



Navigation



Breadcrumb



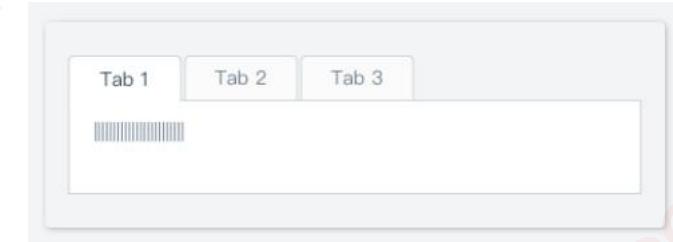
Steps



Navigation



Basic



Card



Pills

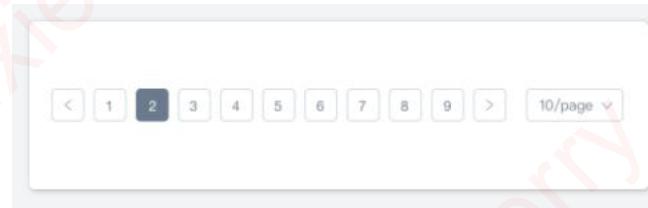


Vertical

Tabs



Navigation



Pagination



VS Code Extension

Auto Close Tag
Auto Rename Tag
HTML Snippets
Babel ES6/ES7
Debugger for Chrome
ESLint
JavaScript (ES6) code snippets
Code Spell Checker
Node.js Modules Intellisense
React-Native/React/Redux snippets for ES6/ES7
TSLint
vscode-style-components

Color Highlight
Custom CSS and JS Loader
EditorConfig for VS Code
File Templates
Git History (git log)
Material Icon Theme
Prettier
Theme—Seti-Monokai



个人项目

- <https://hades217.github.io/>



联系方式

1. 微信联系求职顾问



匠人小花



悉尼匠人小嘿



墨尔本匠人小萌



阿德匠人小德

2. 匠人官网报名

Jiangren.com.au



澳洲匠人学院

电话: 0421-672-555
微信: jracademy
邮箱: hello@jiangren.com.au
网址: jiangren.com.au



匠人找工

免费发雇主招聘信息，免费发招聘者求职信息

微信: jiangren_jobs