

为君添增值!



## WEB前端基础 — HTML5和CSS3新特性快速参考

## 讲师：HELEN





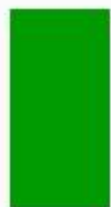
## 第二十五课

### 动画

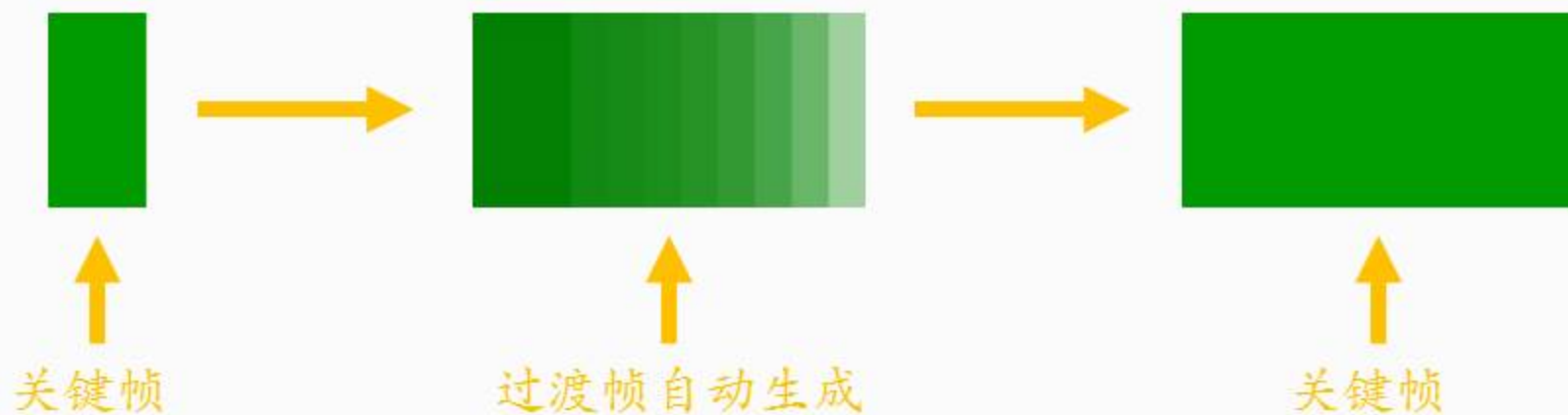




组成动画的每一个画面就是一个**帧**







@keyframes 规则

animation 属性



Webkit内核的浏览器需要加 **-webkit-** 前缀 ( Safari、Chrome )

- @-webkit-keyframes 规则
- -webkit-animation 属性

```
div{  
  width: 50px;  
  height: 100px;  
  background-color: green;  
}
```

← 为一组关键帧起一个名字

```
@keyframes mybox {  
  from {width: 50px;}  
  to {width: 200px;}  
}
```

```
@-webkit-keyframes mybox {  
  from {width: 50px;}  
  to {width: 200px;}  
}
```

← 兼容webkit内核的浏览器



```
div{  
  width: 50px;  
  height: 100px;  
  background-color: green;  
}
```

```
@-webkit-keyframes mybox {  
  from {width: 50px;}  
  to {width: 200px;}  
}
```



```
div{  
  width: 50px;  
  height: 100px;  
  background-color: green;  
}
```

```
@-webkit-keyframes mybox {  
  from {width: 50px;}  
  to {width: 200px;}  
}
```

使用前面定义的动画名字

```
div:hover{  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
}
```



```
div{
  width: 50px;
  height: 100px;
  background-color: green;
}
@-webkit-keyframes mybox {
  0% {width: 50px; height: 100px;}
  50% {width: 200px; height: 100px;}
  100% {width: 200px; height: 200px;}
}
div:hover{
  -webkit-animation-name: mybox;
  -webkit-animation-duration: 2s;
}
```

## 时间函数

- animation-timing-function
- -webkit-animation-timing-function

## 延迟时间

- animation-delay
- -webkit-animation-delay



```
animation-iteration-count: 正整数 | infinite;
```

默认值是1

无限次

```
div:hover{  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-timing-function: ease-in-out;  
  -webkit-animation-delay: 3s;  
  -webkit-animation-iteration-count: infinite;  
}
```



```
animation-direction: normal | reverse | alternate | alternate-reverse;
```



默认值



动画反向播放

```
div:hover{  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-timing-function: ease-in-out;  
  -webkit-animation-delay: 1s;  
  -webkit-animation-iteration-count: infinite;  
  -webkit-animation-direction: reverse;  
}
```

```
animation-direction: normal | reverse | alternate | alternate-reverse;
```

第一次正向播放，第二次反向播放……

```
div:hover{  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-timing-function: ease-in-out;  
  -webkit-animation-delay: 1s;  
  -webkit-animation-iteration-count: infinite;  
  -webkit-animation-direction: alternate;  
}
```

```
animation-direction: normal | reverse | alternate | alternate-reverse;
```

第一次反向播放，第二次正向播放……

```
div:hover{  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-timing-function: ease-in-out;  
  -webkit-animation-delay: 1s;  
  -webkit-animation-iteration-count: infinite;  
  -webkit-animation-direction: alternate-reverse;  
}
```



```
@-webkit-keyframes mybox {  
  0% {transform: translate(0, 200px);}  
  50% {transform: translate(200px, 0);}  
  100% {transform: translate(200px, 200px);}  
}  
  
div{  
  width: 50px;  
  height: 50px;  
  background-color: green;  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-delay: 2s;  
}
```



```
@-webkit-keyframes mybox {  
  0% {transform: translate(0, 200px);}  
  50% {transform: translate(200px, 0);}  
  100% {transform: translate(200px, 200px);}  
}  
  
div{  
  width: 50px;  
  height: 50px;  
  background-color: green;  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-delay: 2s;  
}
```



```
@-webkit-keyframes mybox {  
  0% {transform: translate(0, 200px);}  
  50% {transform: translate(200px, 0);}  
  100% {transform: translate(200px, 200px);}  
}  
  
div{  
  width: 50px;  
  height: 50px;  
  background-color: green;  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-delay: 2s;  
  -webkit-animation-fill-mode: none;  
}
```



```
@-webkit-keyframes mybox {  
  0% {transform: translate(0, 200px);}  
  50% {transform: translate(200px, 0);}  
  100% {transform: translate(200px, 200px);}  
}  
  
div{  
  width: 50px;  
  height: 50px;  
  background-color: green;  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-delay: 2s;  
  -webkit-animation-fill-mode: backwards;  
}
```

```
@-webkit-keyframes mybox {  
  0% {transform: translate(0, 200px);}  
  50% {transform: translate(200px, 0);}  
  100% {transform: translate(200px, 200px);}  
}  
  
div{  
  width: 50px;  
  height: 50px;  
  background-color: green;  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-delay: 2s;  
  -webkit-animation-fill-mode: forwards;  
}
```

```
@-webkit-keyframes mybox {  
  0% {transform: translate(0, 200px);}  
  50% {transform: translate(200px, 0);}  
  100% {transform: translate(200px, 200px);}  
}  
  
div{  
  width: 50px;  
  height: 50px;  
  background-color: green;  
  -webkit-animation-name: mybox;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-delay: 2s;  
  -webkit-animation-fill-mode: both;  
}
```

```
animation-play-state: running | paused;
```



默认值



暂停





```
@-webkit-keyframes myball {  
  100% {transform: rotate(360deg);}  
}  
  
img{  
  -webkit-animation-name: myball;  
  -webkit-animation-duration: 2s;  
  -webkit-animation-iteration-count: infinite;  
  -webkit-animation-play-state: running;  
}  
  
img:hover{  
  -webkit-animation-play-state: paused;  
}
```

所有和animation相关的样式都可以写在animation属性中

- 至少要有animation-name和animation-duration

A code snippet is shown in a dark-themed box. The code is: `img{-webkit-animation: myball 1s ease 3s reverse infinite both paused;}`. Four green arrows point from the text above to specific parts of the code: one to 'myball', one to '1s', one to '3s', and one to 'ease'. A small blue icon with the number '3' is in the top right corner of the code box.

```
img{  
  -webkit-animation: myball 1s ease 3s reverse infinite both paused;  
}
```

- animation-duration在animation-delay之前



```
@-webkit-keyframes myball-1 {  
  100% {transform: rotate(360deg);}  
}  
  
@-webkit-keyframes myball-2 {  
  0%, 50%, 100% {opacity: 1;}  
  25%, 75% {opacity: 0;}  
}  
  
img{  
  -webkit-animation: myball-1 5s linear infinite, myball-2 5s linear infinite;  
}
```





# Thank You !

为梦想增值！

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