

Crafting User Interfaces

RYHAN HASSAN CRASH COURSE 2013

Expectations

Prior Exposure to HTML & CSS

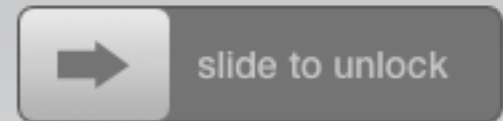
Basic Programming Experience



ANIMATION



TYPOGRAPHY



MOBILE



ANIMATION



via Pasquale D'Silva

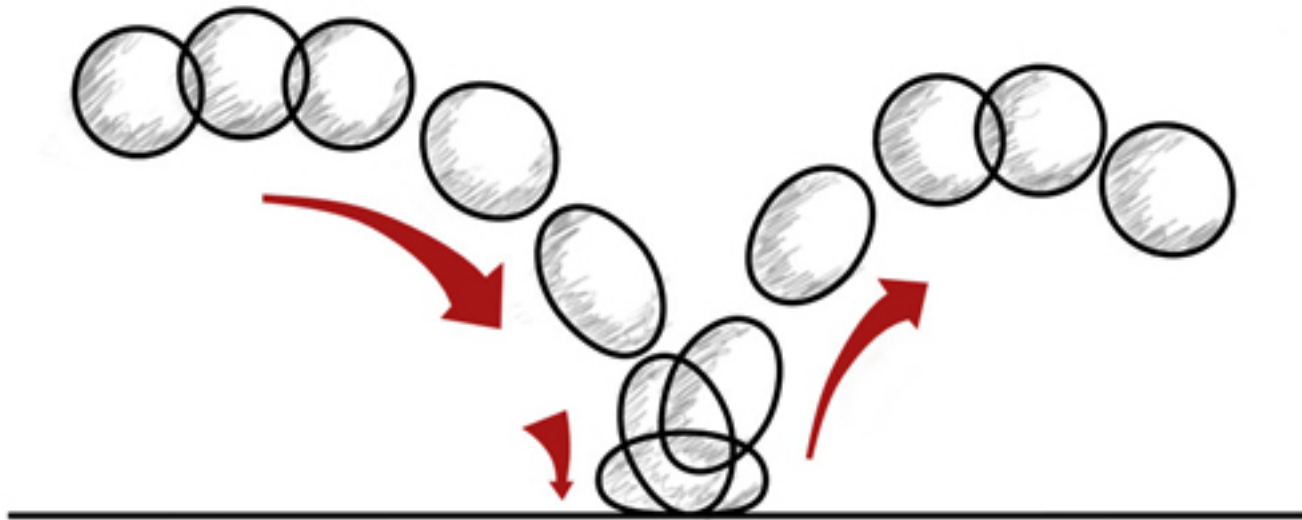
Spatial Cues



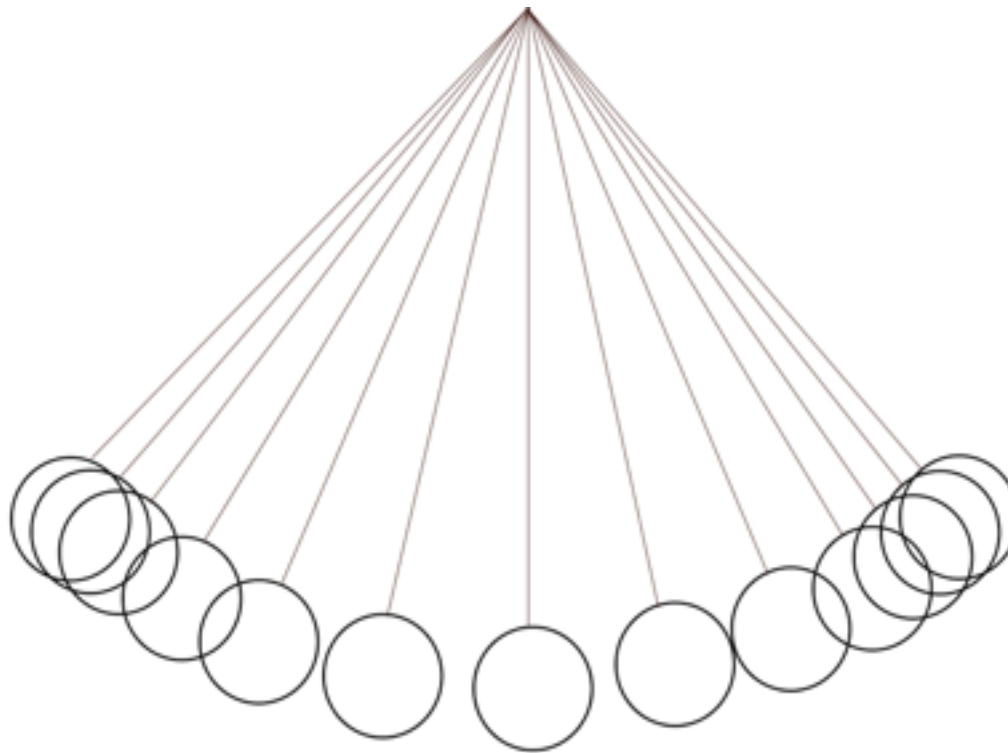
Spatial Cues



Squash and Stretch

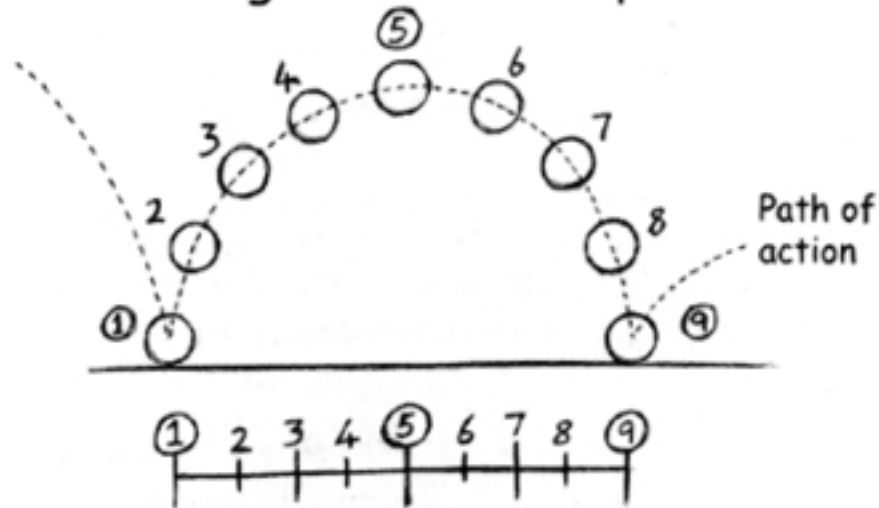


Slow In, Slow out

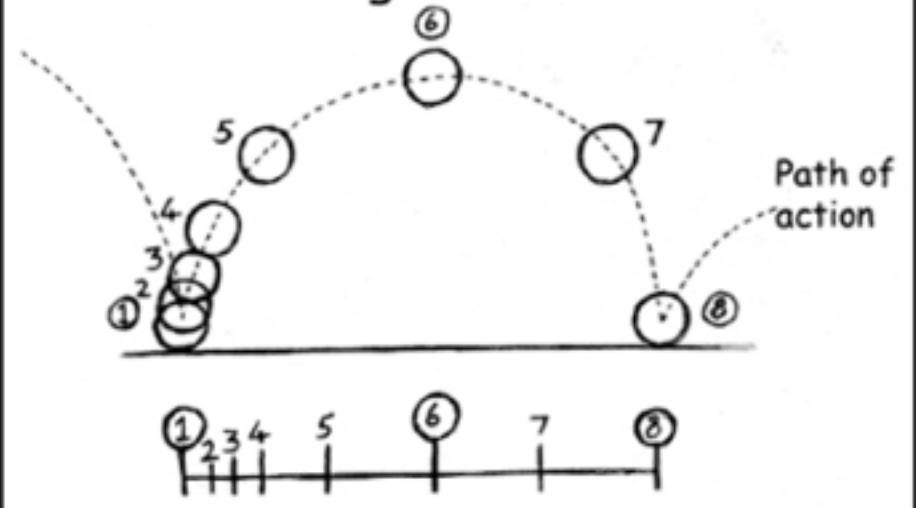


via Michael Jungbluth

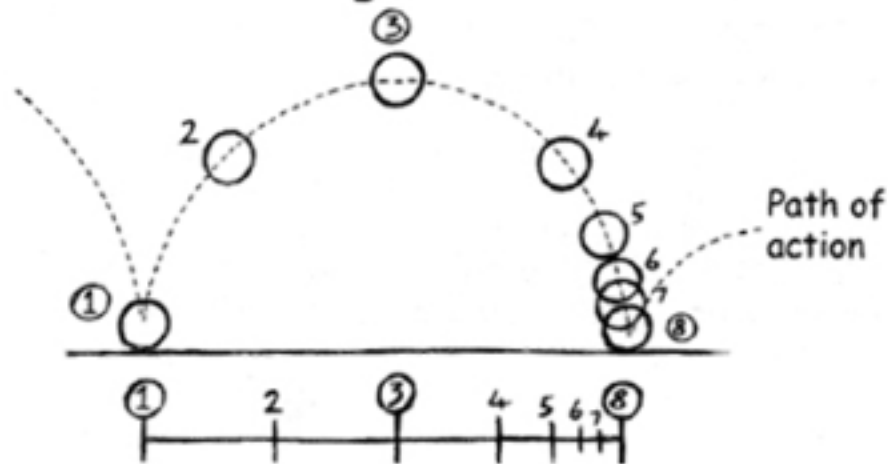
Timing - Constant Speed



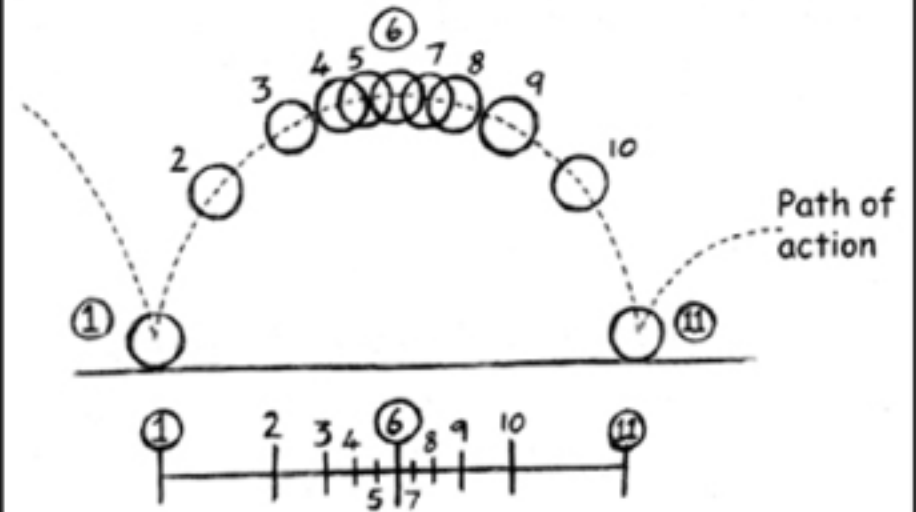
Timing - Slow Out



Timing - Slow In



Timing - Slow In & Slow Out



CSS Transforms

- webkit-transform: **rotate**(360deg);
- webkit-transform: **skew**(5deg, 10deg);
- webkit-transform: **scale**(2);
- webkit-transform: **translate**(10px, 20px);

CSS Transforms

- webkit-transform: **rotate**(360deg);
- webkit-transform: **skew**(5deg, 10deg);
- webkit-transform: **scale**(2);
- webkit-transform: **translate**(10px, 20px);

-webkit-transform: **scale**(2) **rotate**(10deg);

CSS Transitions

```

```

```
<style>
```

```
img{
```

```
  top: 0px;  
}
```

```
</style>
```

CSS Transitions

```

```

```
// Image Element
```

```
<style>
```

```
img{
```

```
  top: 0px;  
}
```

```
</style>
```

CSS Transitions

```

```

```
// Image Element
```

```
<style>
```

```
img{
```

```
// Image CSS
```

```
  top: 0px;  
}
```

```
// Default Position
```

```
</style>
```


CSS Transitions

```
 // Image Element
```

```
<style>
```

```
img{ // Image CSS
```

```
  top: 0px; // Default Position  
}
```

```
img:hover{ // Define Hover State  
  top: 10px; // Hover Position  
}
```

```
</style>
```

CSS Transitions

```

```

```
// Image Element
```

```
<style>
```

```
img{
```

```
  -webkit-transition: all 0.5s;
```

```
// Image CSS
```

```
// Enable Transition
```

```
  top: 0px;
```

```
// Default Position
```

```
}
```

```
img:hover{
```

```
// Define Hover State
```

```
  top: 10px;
```

```
// Hover Position
```

```
}
```

```
</style>
```

CSS Transitions

```
 // Image Element

<style>

img{ // Image CSS
  -webkit-transition: all 0.5s; // Enable Transition
  top: 0px; // Default Position
}

img:hover{ // Define Hover State
  top: 10px; // Hover Position
}

</style>
```

Hover

2D Transform + Transition Demo

CSS Keyframe Animations

```

```

```
<style>
```

```
img{  
  -webkit-animation: bar linear 1s infinite;  
}
```

```
</style>
```

CSS Keyframe Animations

```

```

```
<style>
```

```
img{  
  -webkit-animation: bar linear 1s infinite;  
}
```

```
@-webkit-keyframes bar{  
  0%{    top: 0;}  
  100%{  top: 10px;}  
}
```

```
</style>
```

CSS Keyframe Animations

```

```

```
<style>
```

```
img{  
  -webkit-animation: bar linear 1s infinite;  
}
```

```
@-webkit-keyframes bar{
```

```
  0%{    top: 0;}  
  50%{   top: 20px;}  
  75%{   top: 5px;}  
  100%{  top: 10px;}  
}
```

CSS Keyframe Animations

```

```

```
<style>
```

```
img{  
  -webkit-animation: bar linear 1s infinite;  
}
```

```
@-webkit-keyframes bar{
```

```
  0%{    top: 0;}  
  50%{   top: 20px;}  
  75%{   top: 5px;}  
  100%{  top: 10px;}  
  
}
```


CSS Keyframe Animations

```

```

```
<style>
```

```
img{  
  -webkit-animation: bar ease-in 1s infinite;  
}
```

```
@-webkit-keyframes bar{
```

```
  0%{    top: 0;}  
  50%{   top: 20px;}  
  75%{   top: 5px;}  
  100%{  top: 10px;}  
  
}
```

Bounce

2D Transform + Keyframe Demo

CSS 3D Transforms

```
-webkit-transform: translate( 0px, 10px);
```

```
-webkit-transform: translate3d(0px, 10px, 20px);
```

CSS 3D Transforms

-webkit-transform: **translate**(0px, 10px);

-webkit-transform: **translate3d**(0px, 10px, 20px);

Hardware Acceleration

-webkit-transform: **translate3d**(0, 0, 0);

CSS 3D Transforms

`-webkit-transform: translate(0px, 10px);`

`-webkit-transform: translate3d(0px, 10px, 20px);`

CSS 3D Transforms

-webkit-transform: **translate**(0px, 10px);

-webkit-transform: **translate3d**(0px, 10px, 20px);

-webkit-transform: **rotate**(10deg);

-webkit-transform: **rotate3d**(0.5, 0, 0.8, 10deg);

CSS 3D Transforms

-webkit-transform: **translate**(0px, 10px);

-webkit-transform: **translate3d**(0px, 10px, 20px);

-webkit-transform: **rotate**(10deg);

-webkit-transform:

rotateX(0deg) **rotateY**(10deg) **rotateZ**(20deg);

CSS 3D Transforms

Transformations

-webkit-transform: **translate3d**(0px, 10px, 20px);

-webkit-transform: **rotate3D**(0.5, 0, 0.8, 10deg);

CSS 3D Transforms

Transformations

- webkit-transform: **translate3d**(0px, 10px, 20px);
- webkit-transform: **rotate3D**(0.5, 0, 0.8, 10deg);

Camera

- webkit-perspective: 1000px;
- webkit-transform-style: preserve-3d;

Cube

3D Transform + Keyframe Demo

Recap

`-webkit-transform: rotate/scale/skew/translate;`

`-webkit-transition: all 0.5s;`

`-webkit-animation: bar linear 1s infinite;`

```
@-webkit-keyframes bar{  
    0%    {  
    100% {  
}
```

Recommendation

Animate.css

<https://daneden.me/animate/>



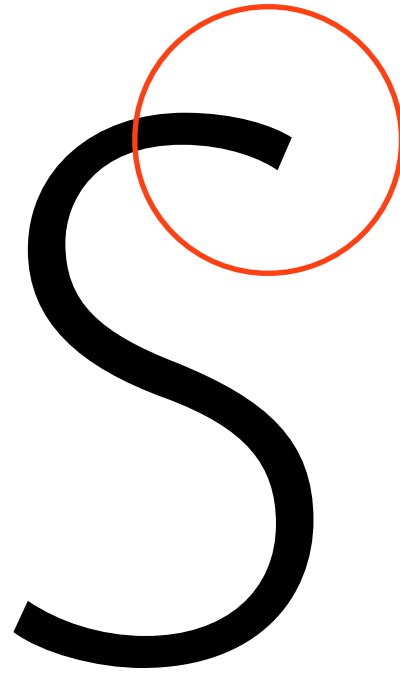
ANIMATION

Lorem

TYPOGRAPHY



Serif



Sans-Serif

Old Style

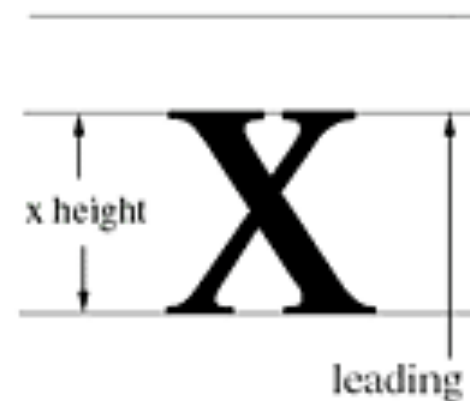
Grotesque

Transitional

Humanist

Modern

Geometric



Baseline



kerning

This line is comfortable to read.

[illegible][illegible]

Tweaking Line Width

[illegible][illegible]

Tweaking Line Width

Even with a small font size, we can make text easy to read by adjusting other attributes. For example, here I've used columns to reduce our line width. Even with a small font size, we can make text easy to read by adjusting other attributes. For example, here I've used columns to reduce our line width.

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**Coming Soon with
CSS Regions**

Hierarchy

Headings

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Help Make Things Easier to Understand

Even with a small font size, we can make text easy to read by adjusting other attributes. For example, here I've used columns to reduce our line width. Even with a small font size, we can make text easy to read

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“We can use pullquotes to emphasize text between paragraphs”
- *Abraham Lincoln*

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Tweking Line Height

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Tweaking Line Height

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Tweaking Letter Spacing

Adjust letter spacing judiciously.

Adjust letter spacing judiciously.

ADJUST LETTER SPACING JUDICIOUSLY

She dashed into the cluster, chasing after the masked intruder who had stolen Amy Quispe's legendary collection of Hello Kitty throw pillows.

A few years ago I took a few days off from work to visit my late grandfather up at his cabin in North Carolina.

Basic Typography with CSS

```
p{  
  font-family: Helvetica, sans-serif;
```

```
}
```

Basic Typography with CSS

```
p{  
  font-family: Helvetica, sans-serif;
```

```
  font-weight: 300;
```

```
}
```

Basic Typography with CSS

```
p{  
  font-family: Helvetica, sans-serif;  
  
  font-weight: 300;  
  
  font-size: 14em;  
  line-height: 20px;  
  letter-spacing: 2px;  
}
```

CSS Font Face

```
@font-face{  
font-family: myFontName;
```

```
}
```

CSS Font Face

```
@font-face{  
  font-family: myFontName;  
  src: url('myFontName.ttf'),  
        url('myFontName.woff'),  
        url('myFontName.eot');    /* IE */  
}
```

CSS Font Face

```
@font-face{  
font-family: myFontName;  
src: url('myFontName.ttf'),  
      url('myFontName.woff'),  
      url('myFontName.eot');    /* IE */  
}
```

```
p{  
  font-family: myFontName;  
}
```


Web Typography Services

Google Web Fonts

Free as in beer. Nice examples available at
<http://hellohappy.org/beautiful-web-type/>

Typekit

Paid, but much better selection.

<http://justmytype.co/> has some great pairings.

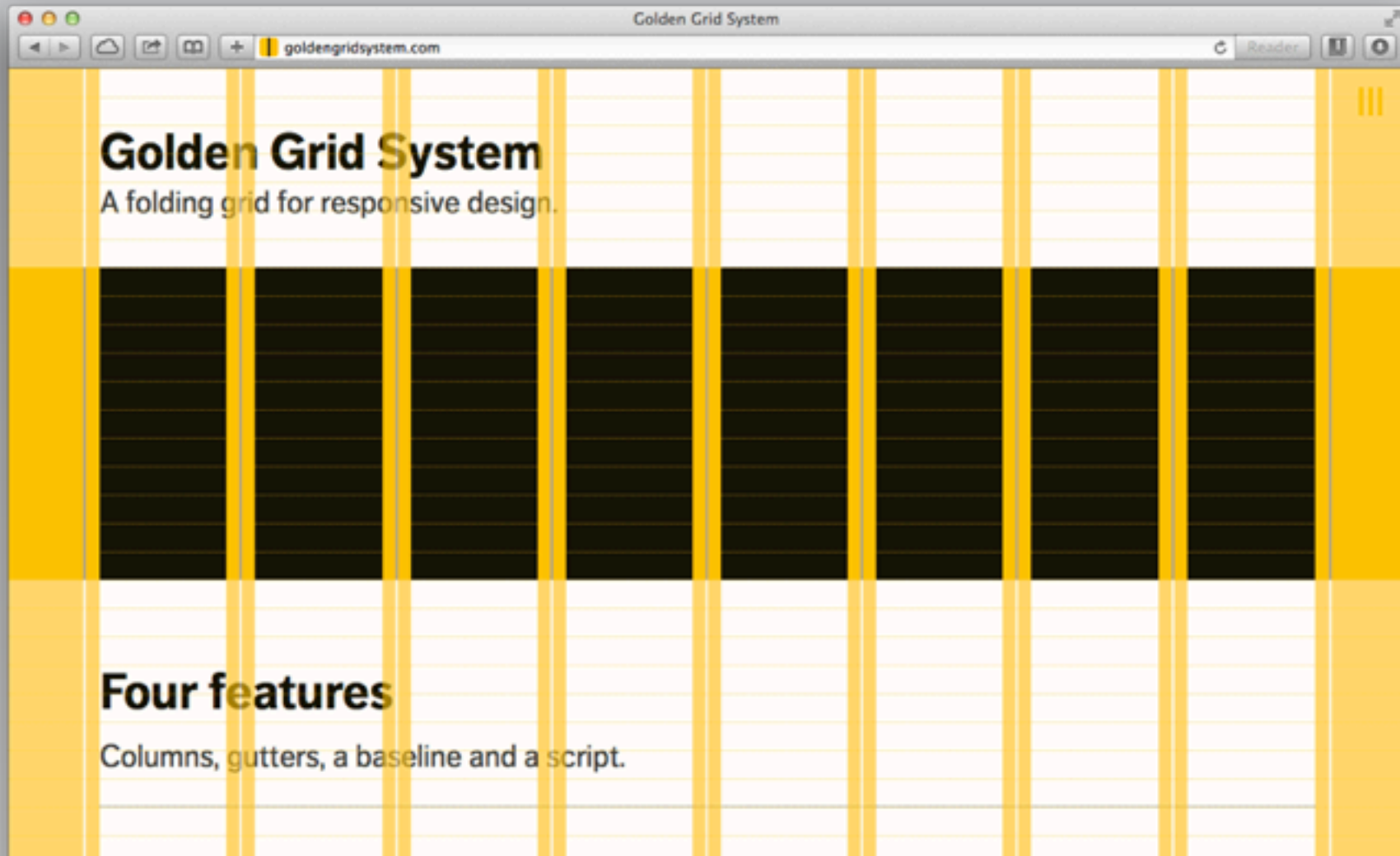
Recap

Set a tone by selecting an appropriate typeface.

Balance font-**size**, line **height**, and line **width**.

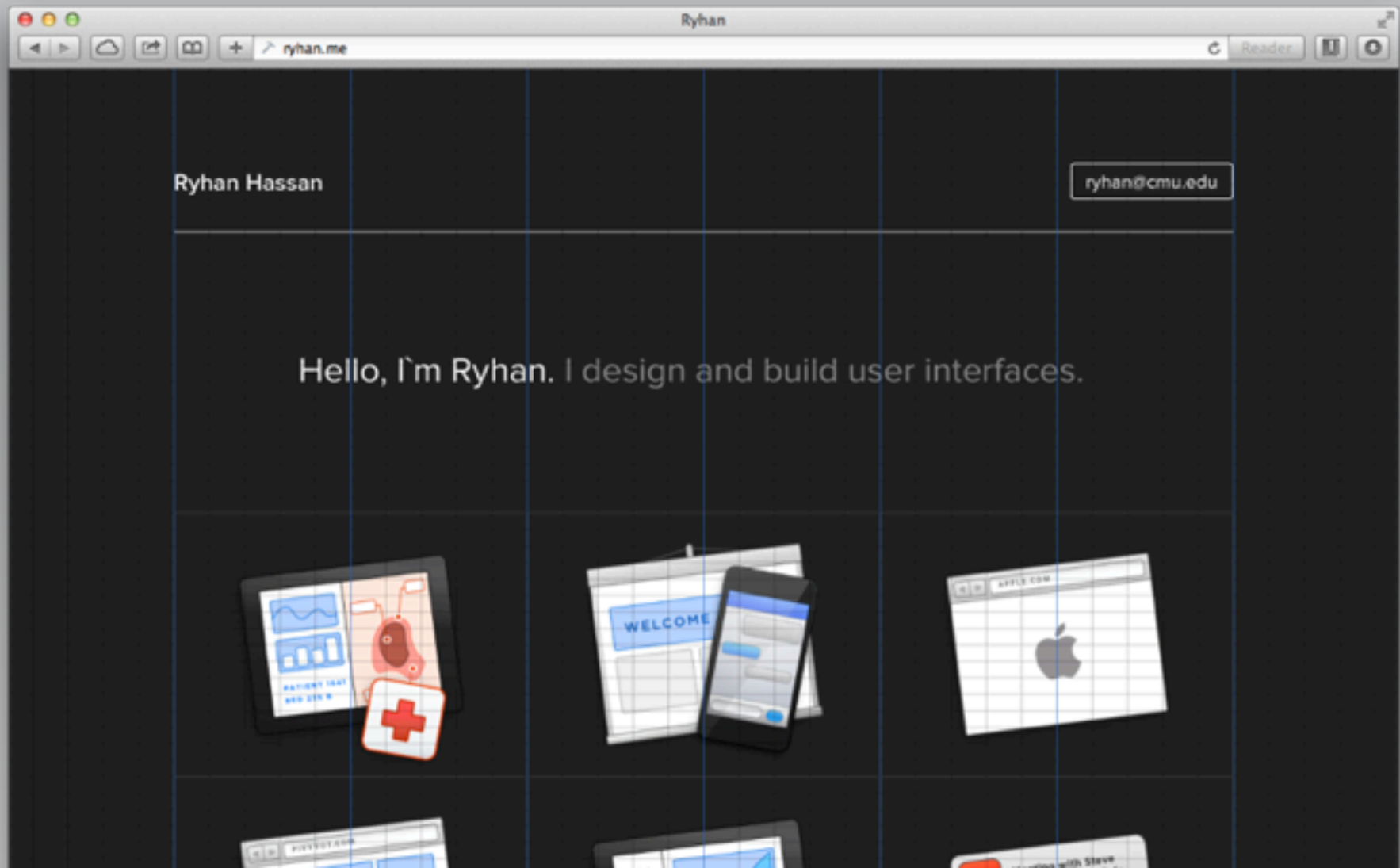
Adjust letter-spacing judiciously.

Grid Systems



Guides.js

github.com/ryhan/guides.js



Recommendations

Golden Grid System

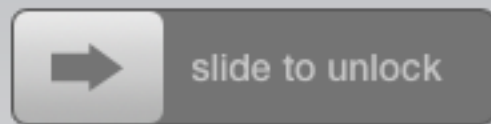
Bootstrap

Zurb Foundation

Skeleton

Lorem

TYPOGRAPHY



MOBILE





Responsive Design

MediaQueries

Provide mobile-optimized css to devices based on screen width

```
<link rel='stylesheet' href='../css/mobile.css'  
      media='screen and (max-width: 600px)' />
```

```
<link rel='stylesheet' href='../css/normal.css'  
      media='screen and (min-width: 600px)' />
```

Viewport

Mobile browsers render pages in virtual “windows” wider than their actual screen.



Viewport

Mobile browsers render pages in virtual “windows” wider than their actual screen.

Set a page width

Set a zoom level

Disable multitouch zooming



Viewport

```
<meta name="viewport" content=" " // Put in <head>
```

```
width = device-width, // Set page width
```

```
user-scalable = no, // Prevent zooming
```

```
initial-scale = 1.0 // Set zoom level
```

```
/>
```

Viewport

```
<meta name="viewport" content=" " // Put in <head>
    width = device-width,        // Set page width
    user-scalable = no,          // Prevent zooming
    initial-scale = 1.0          // Set zoom level
/>
```

MediaQuery Demo

Adjusting CSS based on Page Width

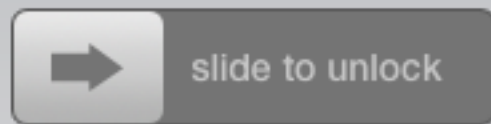
Positioning

Relative

Absolute

Fixed

-webkit-**sticky**



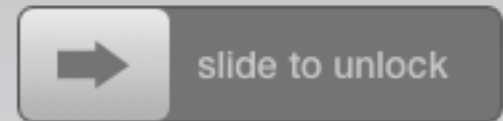
MOBILE



ANIMATION



TYPOGRAPHY



MOBILE

Contact

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twitter.com/ryhanhassan

Demos

github.com/ryhan/htmlDemos

github.com/ryhan/Bounce

