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1  ###
2  ~
3  ~   FramerJS introduction:
4
5  ~   ~   • Basic Triggered Animation
6
7  ###
8
9  ##### P1
10 # Any UI development framework should include a way to animate things.
11 # Framer is no exception.
12 # Framer layers have an animation method.
13 # You call the method and pass it an object with details about the animation.
14 # Framer will change the layer's properties, over time, to match the details object.
15 # The details object is a kind of 'animation target' or 'keyframe data'.
16 # You can think of this approach as 'fire and forget'. (This is common in many animation systems.)
17
18
19 [ ] box = new Layer
20 [ ] box.animate({x:300,y:300})
21
22
23 ##### P1 (alternate)
24 # Same as above, but using shortcuts.
25 # This is super common and we'll use this approach hereafter.
26
27 [ ] box = new Layer
28 [ ] box.animate
29 |   x:300
30 |   y:300
31
32

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33 ##### P2
34 # The details object can include an options property that contains more animation details.
35 # Two common options are time and delay.
36 # Time is the duration of the animation and delay is, well, a delay.
37
38 box = new Layer
39
40 box.animate
41   scale:1.2
42   rotation:45 # Rotation is in degrees. Note that layers rotate around their center by default.
43   backgroundColor:"#ff0000"
44   options:
45     time:0.5 # The animation will last for 1/2 of a second.
46     delay:2 # The animation will start in 2 seconds.
47
48 # There are more options in the documentation. (cmd+D)
49
50
51 ##### P3
52 # Animations are commonly used inside of event handler functions.
53
54 box = new Layer
55
56 box.onMouseDown ->
57   @animate # Remember, '@' means 'this.' and 'this' refers to the layer instance that generated the event.
58   rotation:180 + @rotation # When the handler function runs, '@animate' translates to 'box.animate'
59
60

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61 ##### P4
62 # Calling layer.animate() while the layer is already animating can cancel the previous
63 # animation IF the new animation target has the same properties as the previous target.
64 # This behavior can be useful for things like rollovers.
65 # Try moving the cursor over and off of the box quickly / repeatedly.
```

```
67 box = new Layer
68 ~   x : 100
69 ~   y : 100
```

```
71 box.onMouseOver ->
72 ~   @animate ~
73 ~   ~   scale:2
74 ~   ~   options:
75 ~   ~   ~   time:3 ~
76 ~   ~   ~
```

```
77 box.onMouseOut ->
78 ~   @animate
79 ~   ~   scale:1
80 ~   ~   options:
81 ~   ~   ~   time:3
```

```
84 ##### P5
85 # Any animation system must "interpolate" between the starting value and the end values of an animation.
86 # Interpolation is when a set of values between two other values are calculated using an equation.
87 # Different equations can be used for interpolation.
88 # Different equations result in different sets of values that lead to different looks, or easing, to an animated change.
89 # Because of this, sometimes these equations are called "easing equations".
90 # The values of these equations, when graphed, will look like different kinds of curves:
91 # Because of this, "easing equations" are sometimes just called "curves".
92 # In animation software like After effects you adjust these curves by hand.
93 # In UI development frameworks you select from a set of pre-made curves. (Sometimes you can insert math for your own curves.)
94 # Framer's options include: "ease-in", "ease-out", "ease-in-out".
95 # There are more options in the documentation.
```

```
96
97 box1 = new Layer
98 box2 = new Layer
99   y:200
```

```
100
101 box3 = new Layer
102   y:400
```

```
103
104
105 box1.onMouseDown -> ~~~~~ # I put these animations in the mouse down handler so you have control over triggering them.
```

```
106   box1.animate
107     x:400
108     options:
109       curve:"ease-in" ~~~~~
```

```
110
111   box2.animate
112     x:400
113     options:
114       curve:"ease-out"
```

```
115
116   box3.animate
117     x:400
118     options:
119       curve:"ease-in-out"
```

```
120
121
122
```