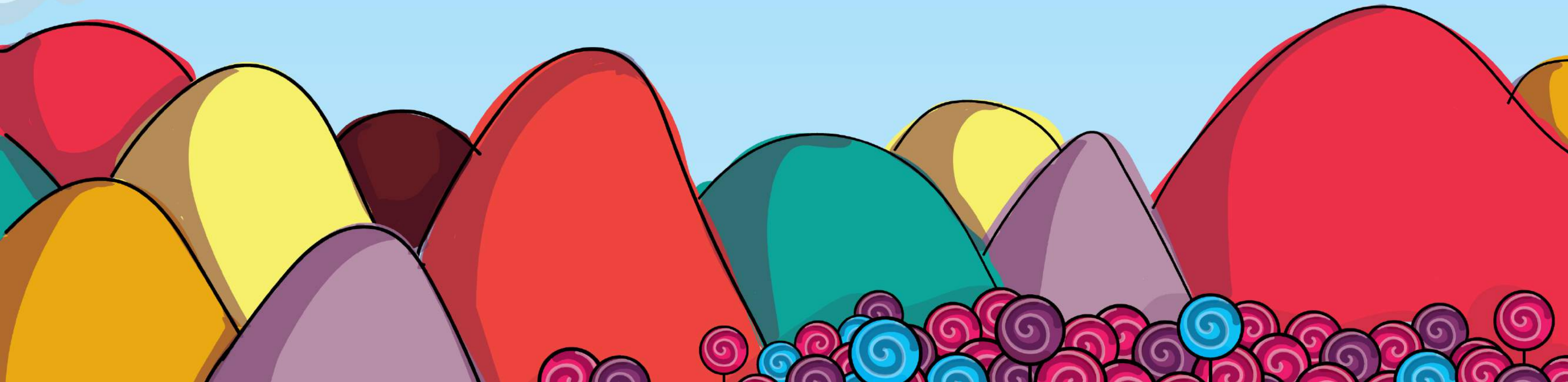




ADVENTURES

IN WEB ANIMATIONS



Level 2 – Transforms

SECTION 2

Transforming Scale and Translate



Creating Interactivity With Inputs

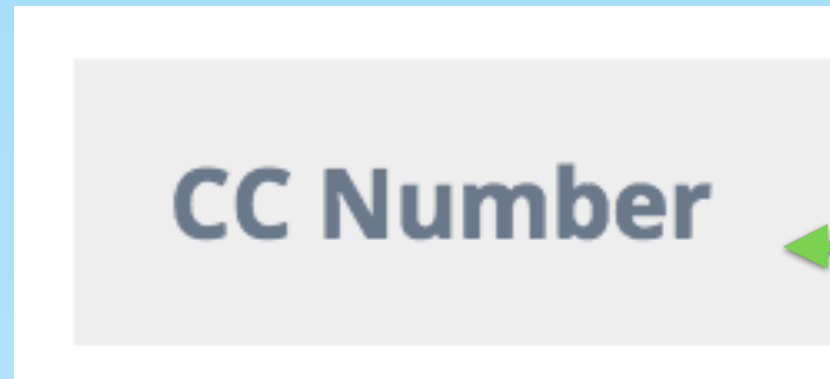
Form inputs are an excellent use of animations on the web.

CC Number

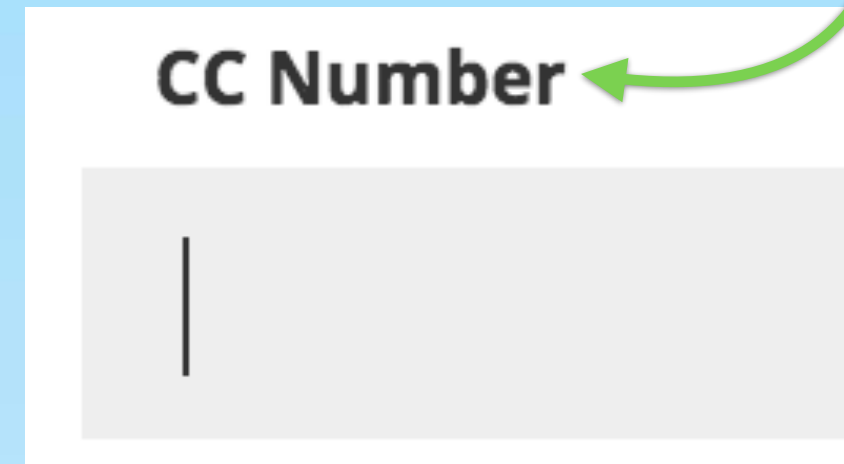
Analyzing the States of the Input Animation

If we break it down, we want our input label to have 2 different states.

We want the initial state of our label to provide information as a text placeholder.



On input:focus, we want the label to slide up and scale down, becoming your average label for an input.



Step 1: Transition the Text Color

1. The input label text is Transitioning Color.

initial state

CC Number

focused state

|CC Number

CSS

```
.form-input + .form-label {  
  position: relative;  
  padding: 0 1em;  
  color: #6A7989;  
  transition: color 0.3s;  
}
```

```
.form-input:focus + .form-label {  
  color: #333333;  
}
```

Only select the **first**
label after each input

darker gray

Step 2: Scaling the Label Size

- ✓ 1. The input label is **Transitioning Color**.
- 2. The input label is **Scaling Down** 80% of its original state.

initial state

Label Text

focused state

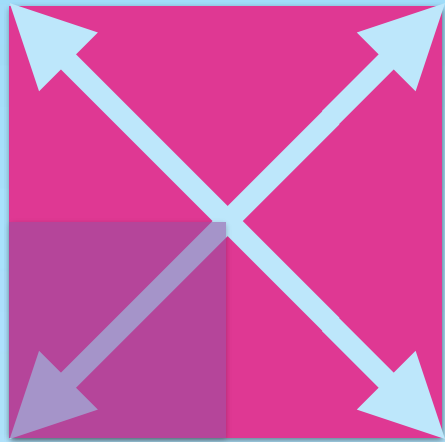
|Label Text

Transform Scale

Scale: to stretch an element based on the value multiplier

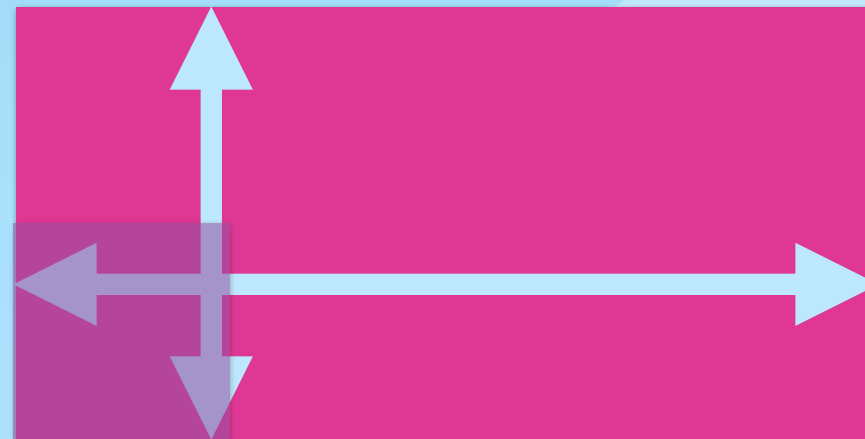
If only 1 value is provided, it will scale the element in both directions by that value.

```
transform: scale(2);
```



make it twice the size

```
transform: scale(4, 2);
```



stretch horizontally by 4, stretch vertically by 2

You can also specify the X and the Y separately:

```
transform: scaleX(value);
```

```
transform: scaleY(value);
```

Scaling Down the Label as It Moves Up

Scaling down to 80% of its original size and transitioning scale:

```
.form-input + .form-label {  
  position: relative;  
  transition: color 0.3s, transform 0.3s;  
}  
  
.form-input:focus + .form-label {  
  color: #333333;  
  transform: scale(0.8);  
}
```

CSS

transition both
color and scale



{Label Text

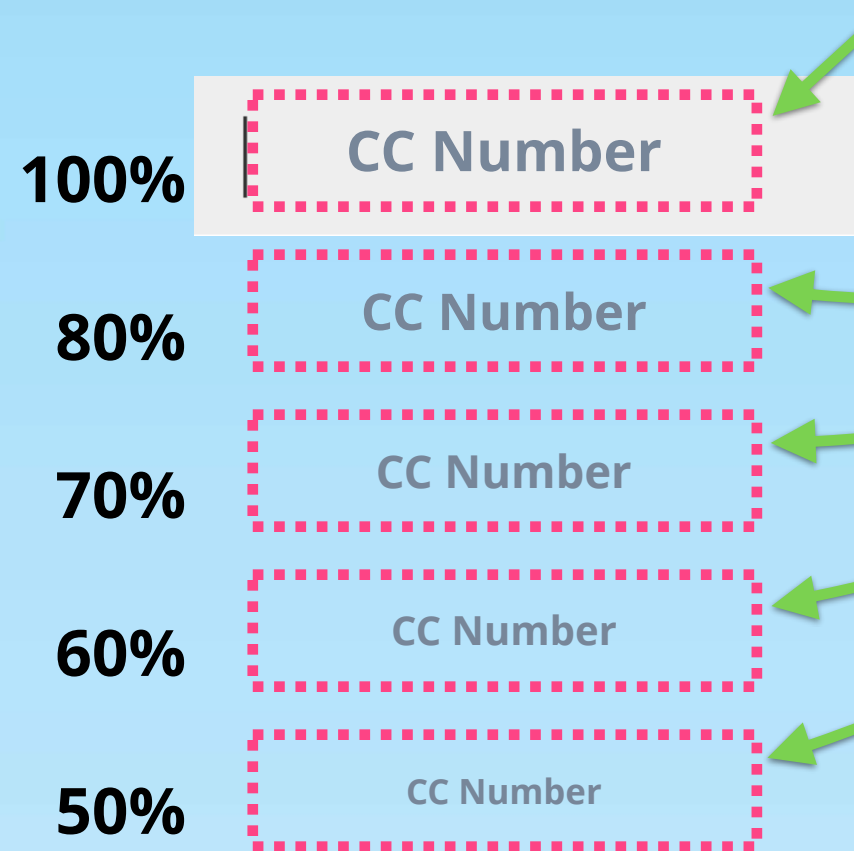
Why is this label moving right?
We didn't change position?!

The Box Model and Scaling Gotcha

When you scale something down, it still maintains its original box model size.

Let's say the "CC Number" label takes up 100px height and 400px width.

No matter how small you scale, the label will still take up 400px x 100px.

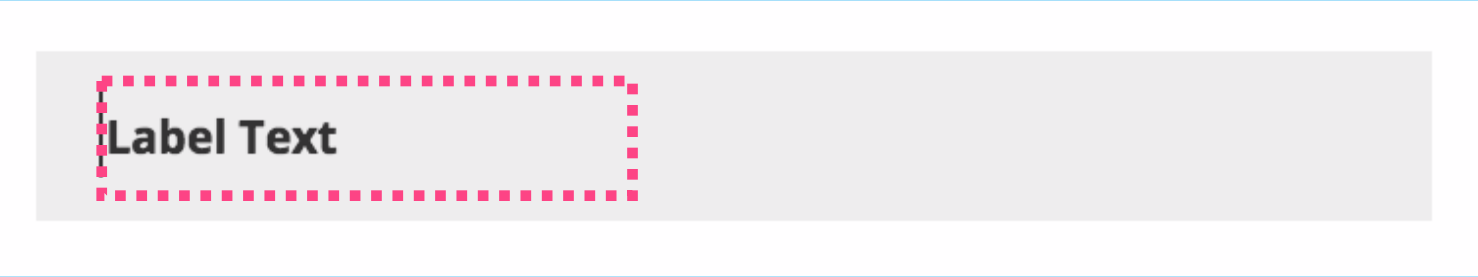


The Desired Label vs. the Current Label

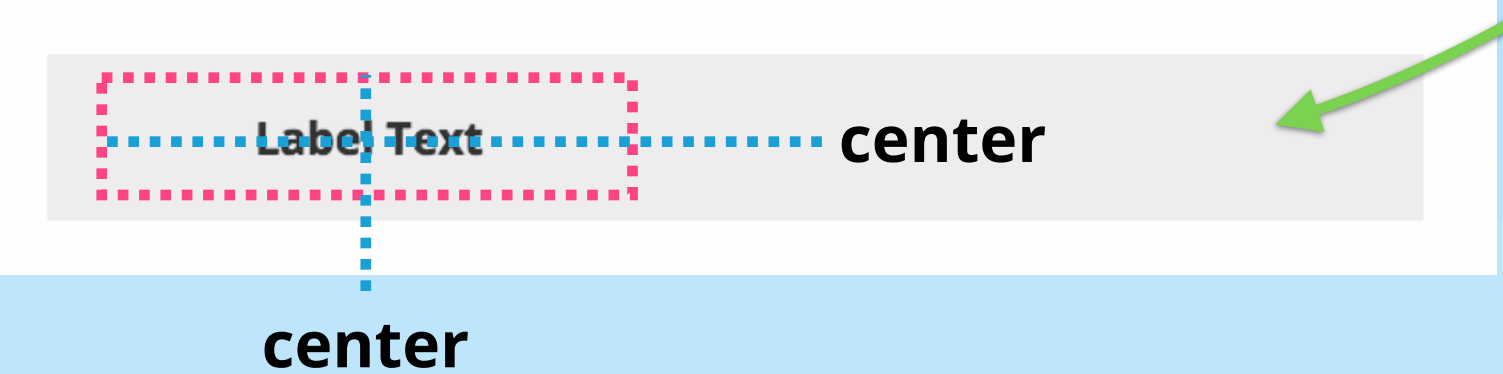
initial state



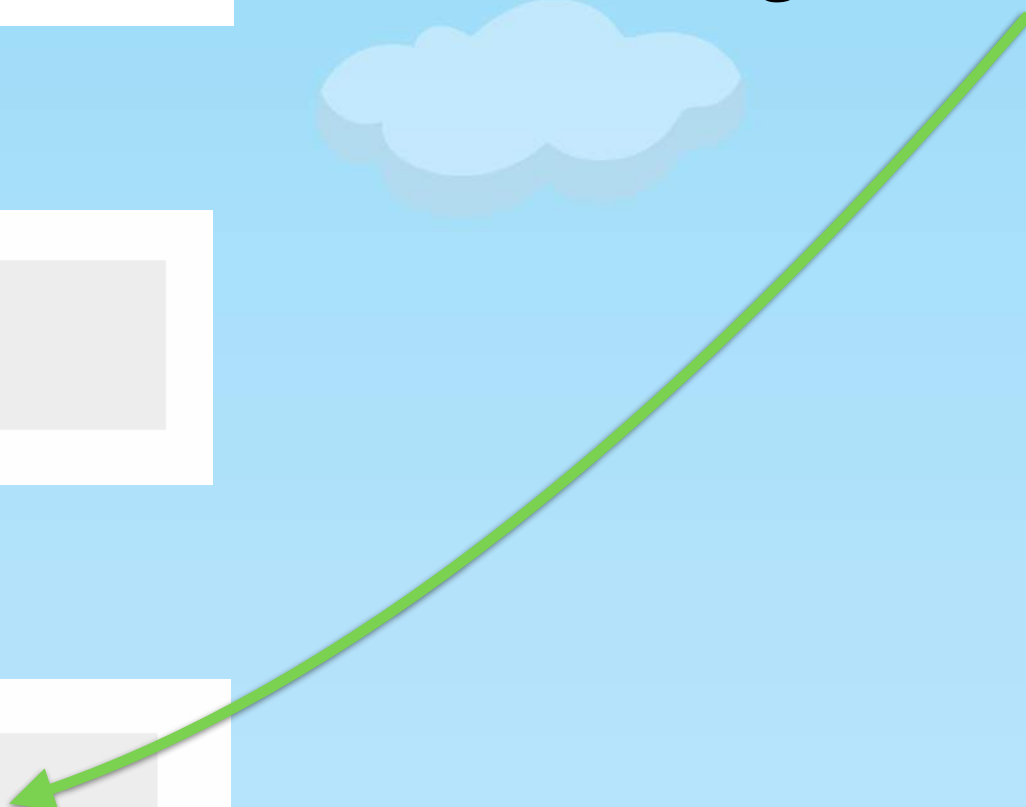
desired focused state



current focused state

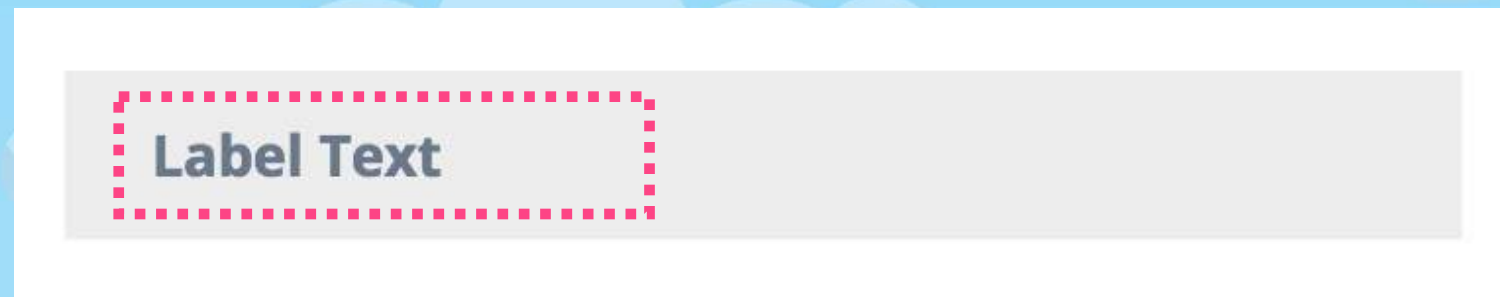


As we scale the text down inside this permanent 400x100 label, it scales around an origin of center.



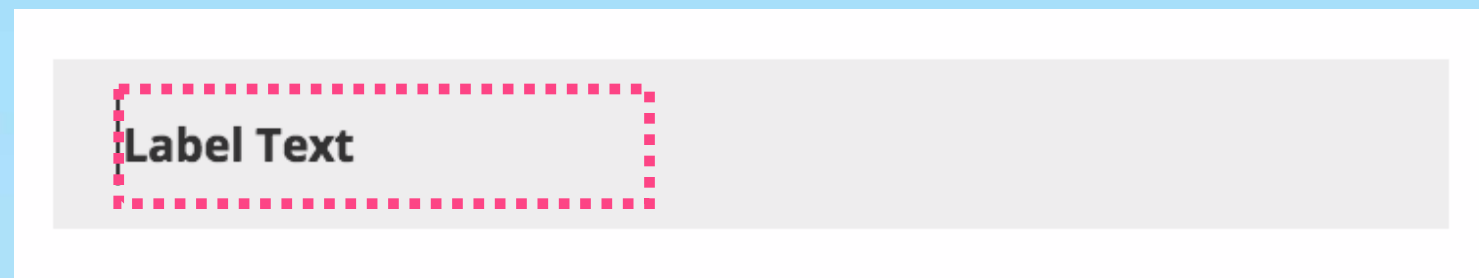
The Label's Origin

initial state

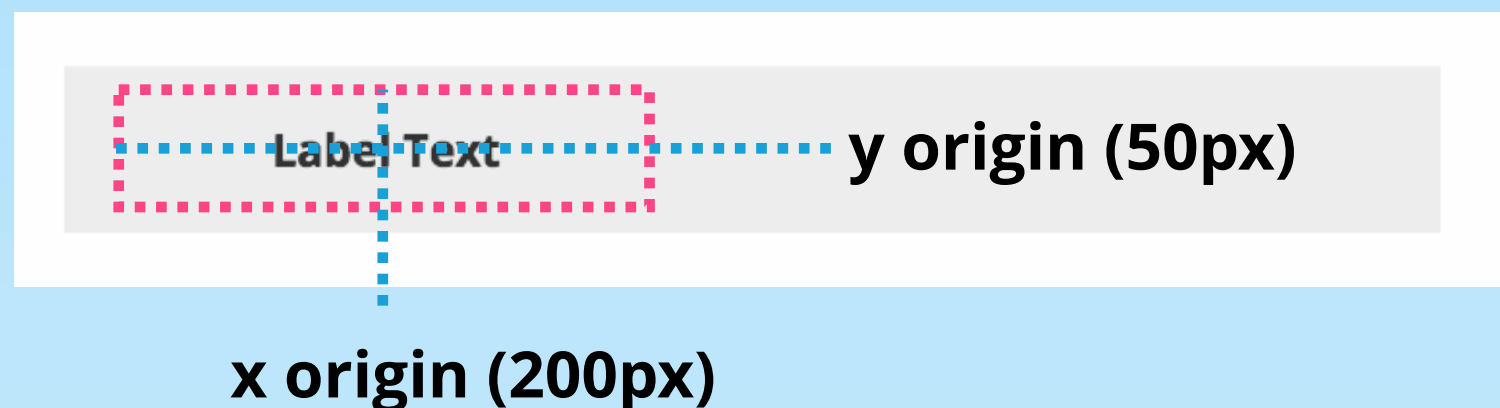


As we scale the text down, inside this permanent 400x100 label, it scales around the center (200x50).

desired focused state



current focused state

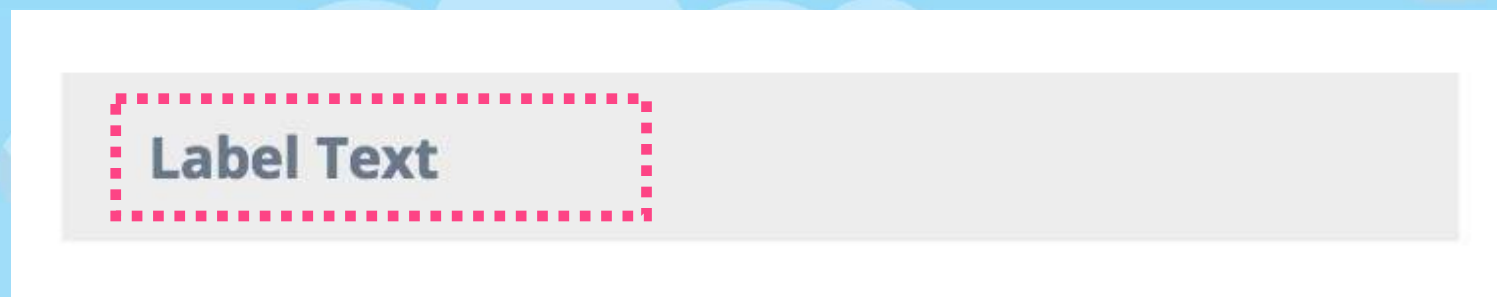


```
transform-origin: center center;
```

↑ ↑
y origin x origin

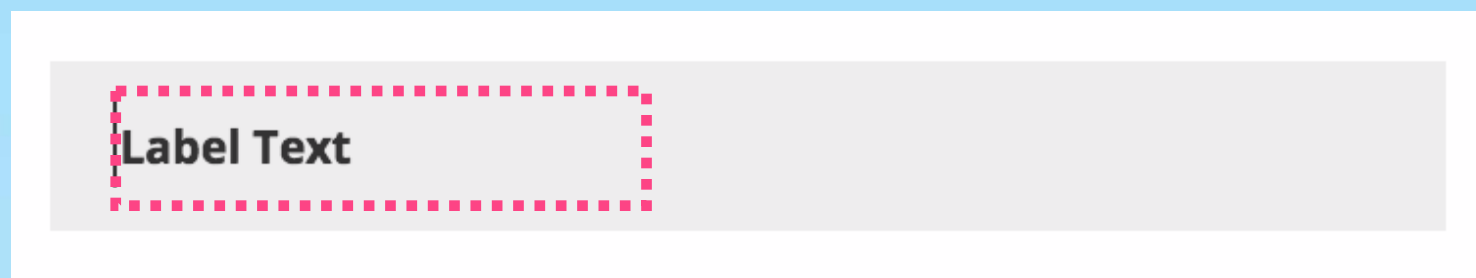
Changing the Label's Origin

initial state

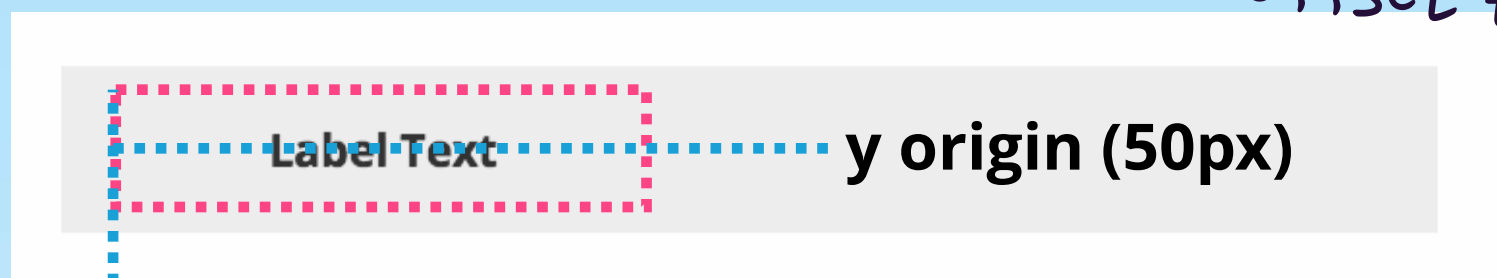


We can set this transform-origin in either keywords (center, right, top...) or in pixels.

desired focused state



current focused state



changing our
x offset to left

`transform-origin: center left;`

↑ ↑
y origin x origin

Solution: Set Transform Origin to Center, Left

CSS

```
.form-input + .form-label {  
  position: relative;  
  transform-origin: center left;  
  transition: all 0.3s;  
}  
  
.form-input:focus + .form-label {  
  color: #333333;  
  transform: scale(0.8);  
}
```



PURCHASE SWEET LANDS

CC Type

Visa

CC Number

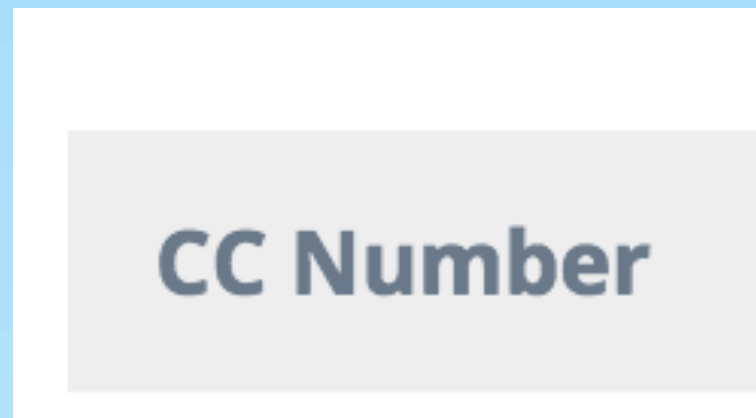
CC Expiration

Submit

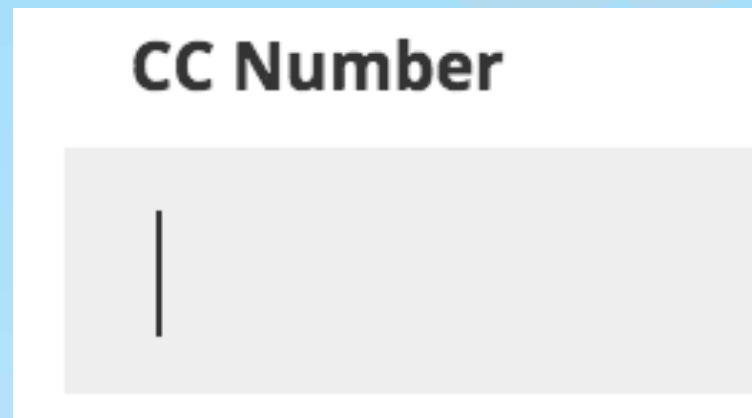
Step 3: Translate the Text Position

- ✓ 1. The input label is **Transitioning Color**.
- ✓ 2. The input label is **Scaling Down** to 80%.
- 3. The input label is **Translating Up** above the input.

initial state

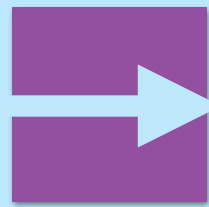
A white rectangular box with a light gray border. Inside, there is a light gray rectangular area containing the text "CC Number" in a bold, dark blue font.

focused state

A white rectangular box with a light gray border. Inside, there is a light gray rectangular area. Above this area, the text "CC Number" is written in a bold, dark blue font. Inside the gray area, there is a vertical line cursor at the beginning, indicating the input is focused.

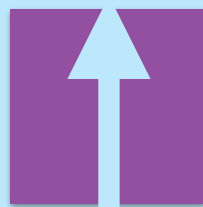
What Is Translation?

Translate simply means **to move** something.



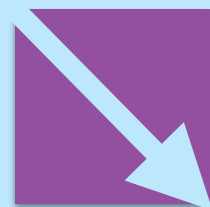
move right 3

```
transform:translateX(3px);
```



move up 3

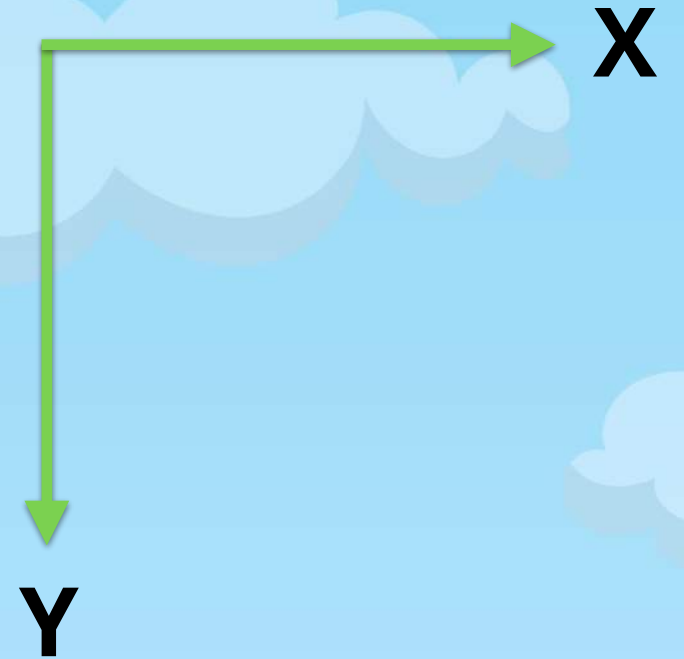
```
transform:translateY(-3px);
```



move right 3

move down 3

```
transform:translate(3px);
```



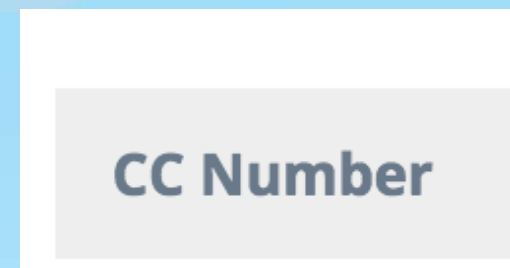
Moving the Label Up With TranslateY

On input:focus, the label of the input should move up out of the way.

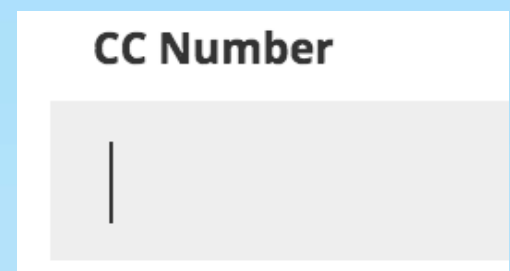
CSS

```
.form-input + .form-label {  
  position: relative;  
  transition: color 0.3s, transform 0.3s;  
}  
  
.form-input:focus + .form-label {  
  color: #333333;  
  transform: scale(0.8) translateY(-40px);  
}
```

initial state

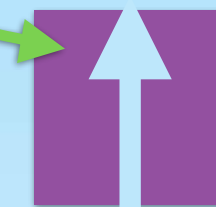


focused state



Can shorten this transition's line by using the `all` keyword.

```
transition: all 0.3s;
```



move up 40px

Our Input Animates Properly!

- ✓ 1. The input label is **Transitioning Color**.
- ✓ 2. The input label is **Scaling Down** to 80%.
- ✓ 3. The input label is **Translating Up** above the input.

sweet saucy sassafras, it works!

CC Number



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