* In case of inline elements, defining 100% will make image use its original size (not 100% of its container). In case of block elements, it will use containers width and height.

**Background-repeat:**

* **Default:** repeat both horizontally and vertically.
* **No-repeat:** image will show up only once.
* **repeat-x:** it will repeat only towards the x axis.
* **Repeat-y:** It will repeat only towards the y axis.

**Background-position:** it is used to specify the position of the background image relative to the background position layer.

* **left top, left center, left bottom, right top, right center, right bottom, center top, center center, center bottom**. If 2nd keyword isn’t specified, it will be center by default.
* **%x %y**: self-explanatory
* **x y:** self-explanatory, units can be pixel or any other css units.

**Background-size:** specify the size of the background.

* **auto:** default value. Background image will have its original size.
* **Width height:** if one value is given only, other is set to auto.
* **%width %height:** same as above, only it defines % rather than unit
* **Cover:** image will take up full container, it might stretch or cut to fit inside.
* **Contain:** resize the image to make sure its fully visible.

**Background-origin:** Set background positioning area, this property has no effect if background-attachment is "fixed".

* **Padding-box:** default value, it starts from upper left corner of padding edge.
* **Border-box:** image starts from the upper left corner of the border.
* **Content-box:** image starts from upper left corner of the content.
* **Inherit:** inherit from parent.

**Background-clip:** Defines if background extends underneath border.

* **Border-box:** default value, background extend behind the border.
* **Padding-box:** background will extend inside the border.
* **Content-box:** background will extend to the edge of the content box.

**Background-attachment:** How scrolling will behave for background image, if it will scroll with rest of the page or fixed.

* **Scroll:** default value, image will scroll with the page.
* **Fixed:** image will not scroll with the page.
* **Local:** image will scroll with the elements content only.

**Gradient**

These are actually the property of background-image. Unlike colors, they will be treated as image and have same property.

**Linear Gradient:** It is a function with 2 arguments (check w3scholls for demo)

* Direction: optional, defines a starting point and direction/angle with the gradient.
* Colors: this can be bunch of colors, this consist of two part as well
  1. Color value
  2. Optional step position (% or a length along gradient axis.)

**Radial Gradient:** By default, it’s an ellipse, but we can set its shape, position, size. Check w3scholls for its parameters.

Stacking Multiple Backgrounds

* Only one background color can be used, other than that we can stack as many backgrounds as possible.
* Top most elements must be transparent, otherwise rest of the images won’t be visible.
* Its precedence is from left to right, so leftmost background will be at top, then the next one and so on.
* In this case we can separate each background with comma.

**Filter:** this property defines visual effect of an elements (usually images),

* **Blur(px):** Default value is zero, larger value will create more blur.
* **Brightness (%):** 0%(black)-100%(original) range, over 100% gives additional brightness.
* **Contrast (%):** similar to brightness.
* **Drop-shadow ():** Takes 4 parameters, its similar to box-shadow property.
  1. **H-shadow:** required, horizontal shadow (on the right, negative creates on left)
  2. **V-shadow:** required, vertical shadow, same as above for +/- values.
  3. **Blur:** optional and must be in pixel, can’t be negative.
  4. **Spread:** optional and must be pixel, + values make it expand, – shrinks it.
  5. **Color:** optional
* **Grayscale (%):** only positive values, range is 0- 100%.
* **Hue-rotate(deg):** range 0 – 360%
* **Invert (%):** only positive values, range is 0- 100%.
* **Opacity (*%*):** only positive values, range is 0- 100%.
* **Saturate (*%*):** only positive values, range is 0- 100%.
* **Sepia (*%*):** only positive values, range is 0- 100%.