



## How to make a responsive web design - basics

by [tomheylen](#) on October 10, 2014

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I like to make stuff in my free time. Especially programming, cooking, electronics etc. Lately I'm making tutorials about stuff I made the last few years.

## Intro: How to make a responsive web design - basics

In this instructable you will learn how to make a responsive webpage using HTML and css.

### We will cover:

The basics of resizable HTML elements.

Difference between responsive website and mobile website.

The use of the viewport tag to detect the user's mobile device and display the webpage in the best resolution.

# Responsive Web Design



## Step 2: Responsive web design vs mobile website

- A responsive website is one website that resizes all the way to fit the screen of the user's device.
- A mobile website is a different website usually starting with m-dot

### Why not to use the m-dot version.

- Responsive web design doesn't require a separate website.
- You only have to maintain one website that looks good on any device.
- m.dot websites can create errors when sharing url's, as they will be opened on desktop and mobile devices.
- When errors, Search engines will punish your site in ranking lower

Responsive Web design  
vs  
Mobile Website

website.com

m.website.com



Responsive Web design  
vs  
Mobile Website

website.com



m.website.com



# Why Responsive design?

Single url

website.com

~~m.website.com~~

No redirect



Saves resources



### Step 3: HTML & css for resizable web design

You can download the exercise file in the link below.

[http://tomtomheylen.com/download\\_file.php?file=responsive1\\_final&extention=html](http://tomtomheylen.com/download_file.php?file=responsive1_final&extention=html)

A good way to build your website is by making your **HTML** tags **fluid**.

It is very easy to do by using percentage in your css.

For this example we are making a **head**, **menu**, the content **body** and a **footer**, centered in the web browser.

You only have to give the elements a **min-height** and a **margin-left** and **margin-right**.

With min-height, the elements can increase if needed.

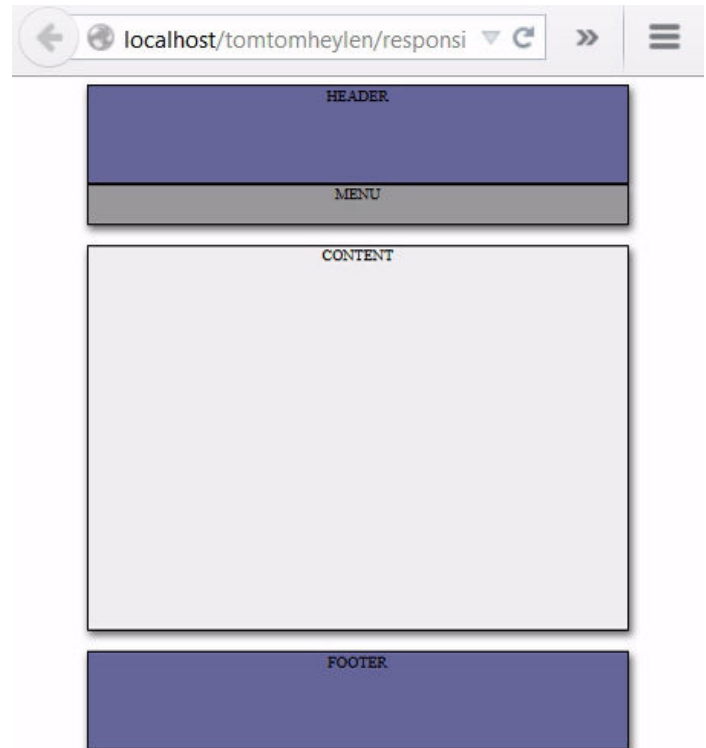
Margin left and right are expressed in percentage to keep proportion for any screen resolution.

And same thing for margin-top and bottom.

You can play around with this figures to fit your needs.

```
<!doctype html>
<style>
#header{
  min-height: 100px;
  background-color: #666699;
}
#menu{
  min-height: 40px;
  background-color: #999999;
}
#body{
  min-height: 400px;
  margin-top: 3%;
  background-color: #efefef;
}
#footer{
  min-height: 100px;
  margin-top: 3%;
  background-color: #666699;
}
#header, #menu, #body, #footer{
  margin-left: 10%;
  margin-right: 10%;
  box-shadow: 3px 5px 7px #666666;
  border: 1px solid black;
}
</style>

<html lang="en">
<head>
<title>Responsive Design</title>
</head>
<body>
<div id="header">
<center>HEADER</center>
</div>
<div id="menu">
<center>MENU</center>
</div>
<div id="body">
<center>CONTENT</center>
</div>
<div id="footer">
<center>FOOTER</center>
</div>
</body>
</html>
```



### Step 4: Viewport meta tag

So here we have a responsive website!!!

When I view this website on a mobile device however, it shows the website in full resolution and I have to zoom-in and out to navigate.

Here is where the Viewport Meta Tag comes into play...

The viewport meta tag was Apple's solution to the problem and was quickly adopted by other platforms. But was never put forward by the W3C.

`<meta name="viewport" ... >`

Therefore we will define a similar viewport rule in our css.

`@viewport{ ... }`

And another one as a fix for internet explorer.

`@-ms-viewport{ ... }`

The width adjusts the site to the device in normal view and landscape view.

And zoom or initial 1 stands for no zooming.

<http://www.instructables.com/id/How-to-make-a-responsive-web-design-basics/>

There are a whole bunch of viewport properties to use for every single device.

But to make it easy, we only use a few to fit all.

I leave you a link as a reference.

[https://developer.mozilla.org/en/docs/Mozilla/Mobile/Viewport\\_meta\\_tag](https://developer.mozilla.org/en/docs/Mozilla/Mobile/Viewport_meta_tag)



```
#header, #menu, #body, #footer{
  margin-left: 10%;
  margin-right: 10%;

  box-shadow: 3px 5px 7px #666666;
  border: 1px solid black;
}
@viewport{
  zoom: 1.0;
  width: extend-to-zoom;
}
@-ms-viewport{
  width: extend-to-zoom;
  zoom: 1.0;
}

</style>

<html lang="en">
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Responsive Design</title>
</head>
<body>
```

### Step 5: Result

When we view our webpage on a mobile device now, it looks the way we want.

Extra information:

[http://tontomheylen.com/categories/Responsive\\_web\\_design/Responsive\\_web\\_design\\_part\\_1.php](http://tontomheylen.com/categories/Responsive_web_design/Responsive_web_design_part_1.php)

Test your website

<https://developers.google.com/speed/pagespeed/insights/>

<http://www.instructables.com/id/How-to-make-a-responsive-web-design-basics/>

# Before



# After



## Related Instructables

How to make a responsive website

**Make your HTML-Website suitable for Mobile Devices** by sphere360

How to make a responsive website

**Create a mobile web site with RSS + CSS** by JetCityOrange



**How to design for mobile (with Dee Sadler)** by 02geek



**Tips and Tricks for converting design PSD to Wordpress e-commerce Website** by ipraxa



**Create your first mobile WebApp in just 30' minutes** by apadillaf



**How to make your awesome website EVEN MORE AWESOME by making it accessible** by regisd

## Comments