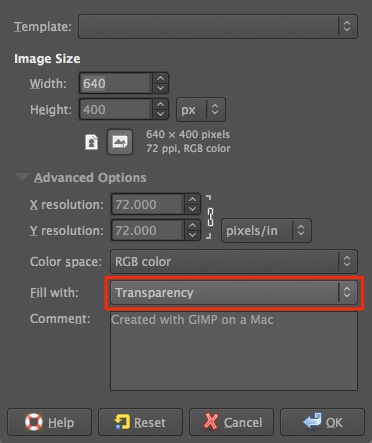
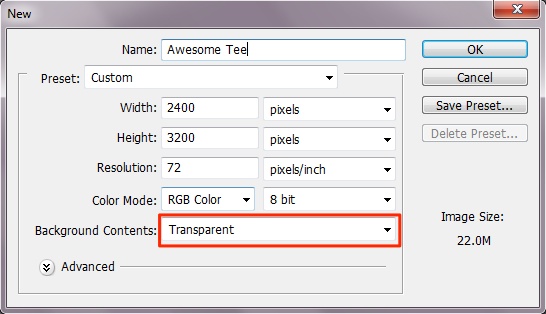
Tees are the most popular products sold on the Redbubble marketplace, so it is essential to know all the tips and tricks when designing specifically for garments.

When creating a new file, it needs to be at least 3200 (height) x 2400 (width) pixels in size, 8-bit, with a transparent background. Our garment printers only print in the CMYK format so we recommend designing in this colour spectrum as it will give you a better idea of how the final product will look. You will still need to convert to RGB when saving the final file as a PNG. We recommend using Photoshop or Gimp (which is available as a free download). This is what your settings should look like in both programs if you are creating your own document:





What graphics software do I need?

You can use any graphics software that supports PNG files. We recommend [Adobe Photoshop](http://www.adobe.com/products/photoshop/family/?promoid=BPDEK) or [GIMP](http://www.gimp.org/)(which is free but a bit less user friendly).

Other popular graphics programs which support the PNG format include Photoshop Elements, Adobe Illustrator, Corel Photo-Paint, Pixelmator, Inkscape (another free one), Paint Shop Pro, Pixel image editor, Paint.NET and Xara. We have also found some super helpful tutorials online either on blogs or Youtube. At the bottom of this FAQ is a list of some of our favourites.

What is a PNG File?

We ask for t-shirt designs to be uploaded as PNG files. This is because PNG files are the smallest file size you can use with transparency (i.e. – your transparent background), and results in quicker, easier uploads.

How to make a transparent background

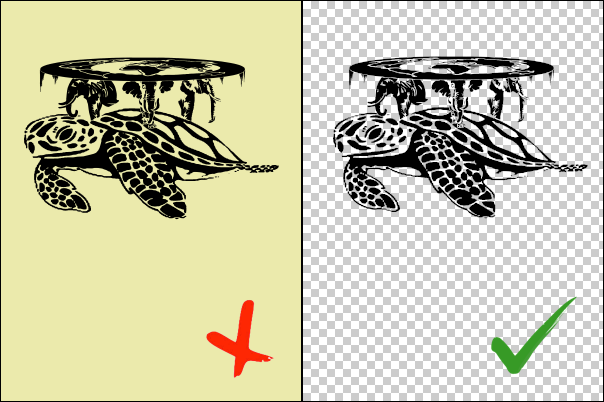
One of the most unique and exciting design features of designing for tees in a PNG format, is that you can utilise transparent backgrounds. This means that your image does not necessarily have to fill the entire dimensions of the tee. You can have the colour of the tee appear through or surrounding the image. Some examples can be seen below.



*Great Idea* by [mathiole](http://www.redbubble.com/people/mathiole?ref=artist_title_name)

A transparent background looks like a grey and white checkered box. If you flatten the image or fill the whole background up with black or white it will be printed on your t-shirt.

**Tip**: If you are saving your document at any stage and you are asked to flatten layers, choose ignore.



*Discworld* by [Dominic Taranto](http://www.redbubble.com/people/domadart?ref=artist_title_name)

**How to remove background colour**

This is a particularly handy thing to learn about if you are working with photos in your t-shirt design. There are a number of ways you can remove background colour in Gimp, Photoshop and other graphics software programs. This can take a bit of practice so you may need to have some patience. Here’s a couple of tutorials demonstrating tips for removing background colour. If these don’t suit what you’re trying to achieve, get on Google and Youtube and have a hunt around for others. There are lots of different tutorials out there.

1. [Removing Backgrounds in Gimp](http://docs.gimp.org/en/gimp-tutorial-quickie-separate.html)
2. [Removing Backgrounds in Photoshop](http://graphicssoft.about.com/od/photoshop/l/blremovebackg.htm)

Another option in Photoshop is to use the Select > Colour Range option if you want to remove all trace of one particular colour from an image.

**Saving your file**

Then all you have to do is save it as a PNG file which can be done using the "Save For Web" function in Photoshop and should appear in your drop down options on the saving dialogue box in Gimp. If you do not see the PNG file option in your drop down options, check your settings under Image > Mode (in Photoshop and Gimp) to make sure you have the file set to RGB.

What are vector graphics and raster graphics?

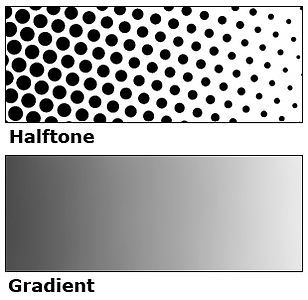
*Vector graphics* are made up of paths which are defined by a start and end point, along with other points, curves, and angles along the way. A path can be a line, a square, a triangle, or a curvy shape. These paths can be used to create simple drawings or complex diagrams.

Pictures found on the Web and photos you import from your digital camera are *raster graphics*. They are made up of grid of pixels, also known as a bitmap.

Because vector-based images are not made up of a specific number of dots or pixels they can be scaled to a larger or smaller size and will not lose any image quality. If you enlarge a raster graphic, it will look pixelated but if you enlarge a vector graphic, the image will stay smooth and clean no matter how big you make it.

* [More info about Vector Graphics](http://en.wikipedia.org/wiki/Vector_graphics)
* [More info about Raster Graphics](http://en.wikipedia.org/wiki/Raster_graphics)

Using halftones or gradients



The printers used on t-shirts spray down a number of layers of ink on the shirt. On dark shirts, the printers put down an area of white first which sits underneath the coloured layers. If there are very fine details in your shirt design, the printers are effectively trying to lay down colour in exactly the same spot as the last layer so when using gradients and halftones in your design it's worth keeping the following in mind:

* Black fading to nothing = ok
* White fading to nothing = tricky
* Colour fading to nothing = tricky
* Colour fading to another colour = ok

[More info on Halftones](http://en.wikipedia.org/wiki/Halftone)

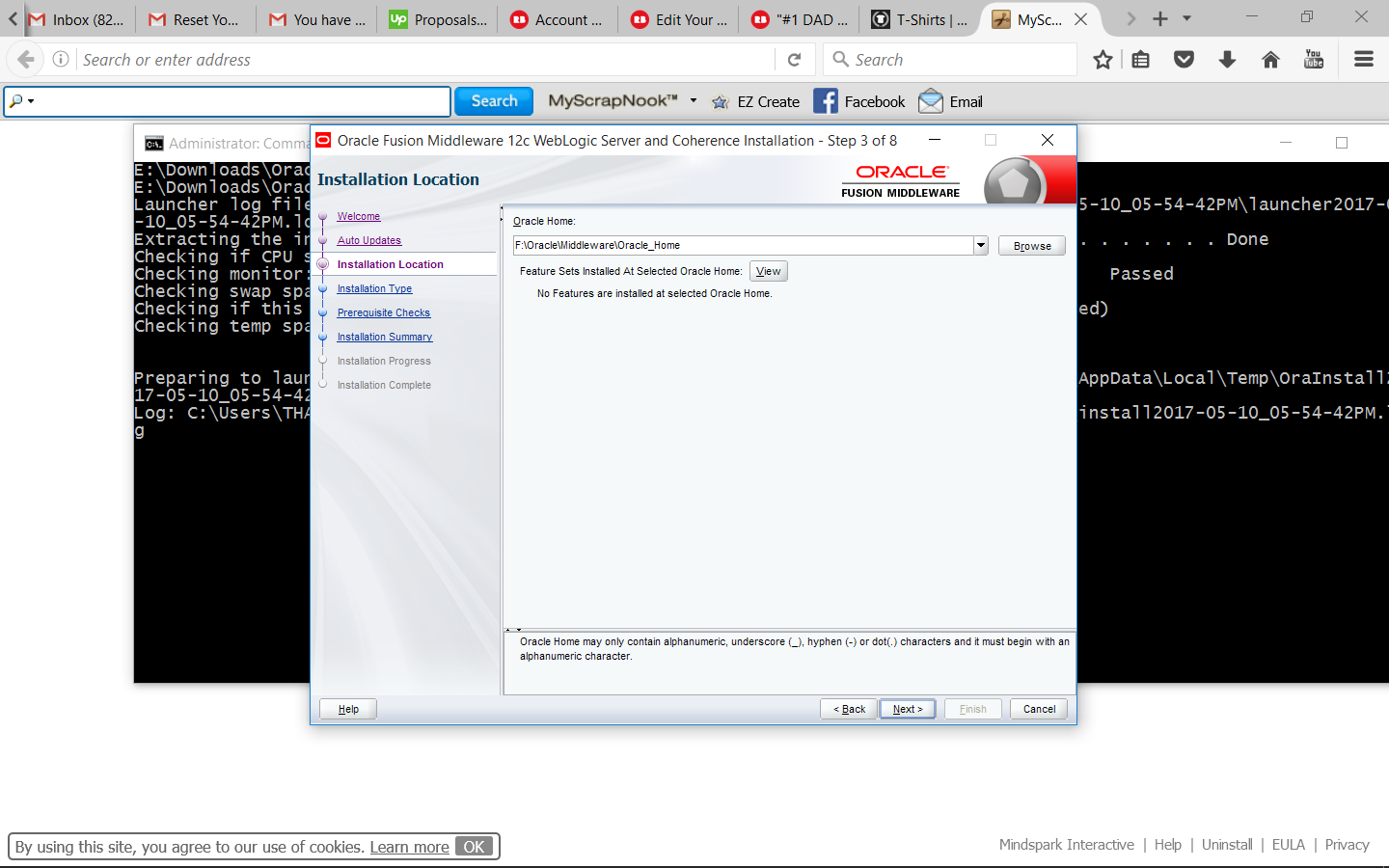
How your artwork will print

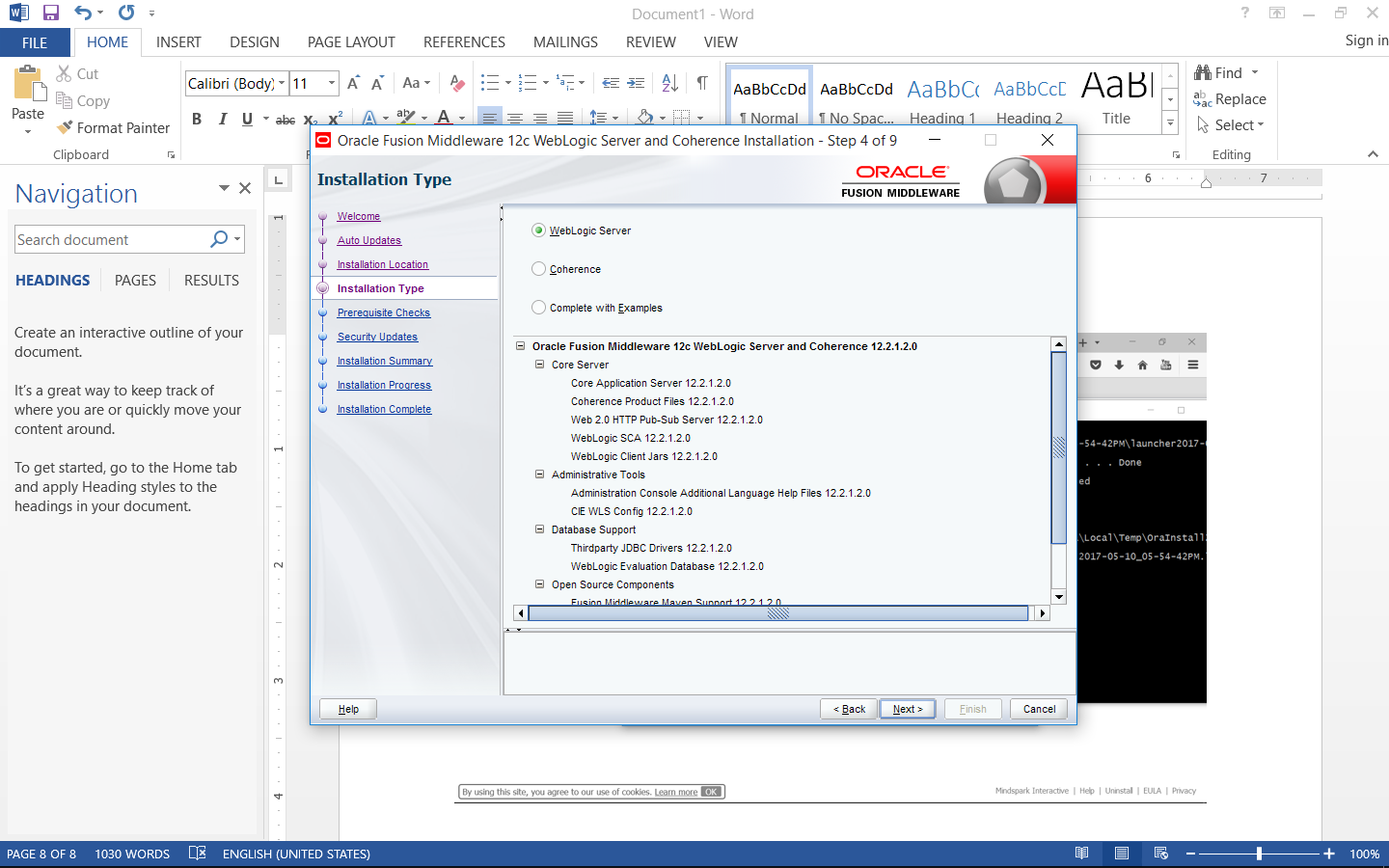
The Direct to Garment Digital Printers used on t-shirts are like an enormous inkjet in principle but unlike most other inkjet printers, it has white ink. Prints are divided into lights and darks. For light coloured t-shirts it prints straight onto the shirt, for darks it lays down a white base first and then prints on top of that.

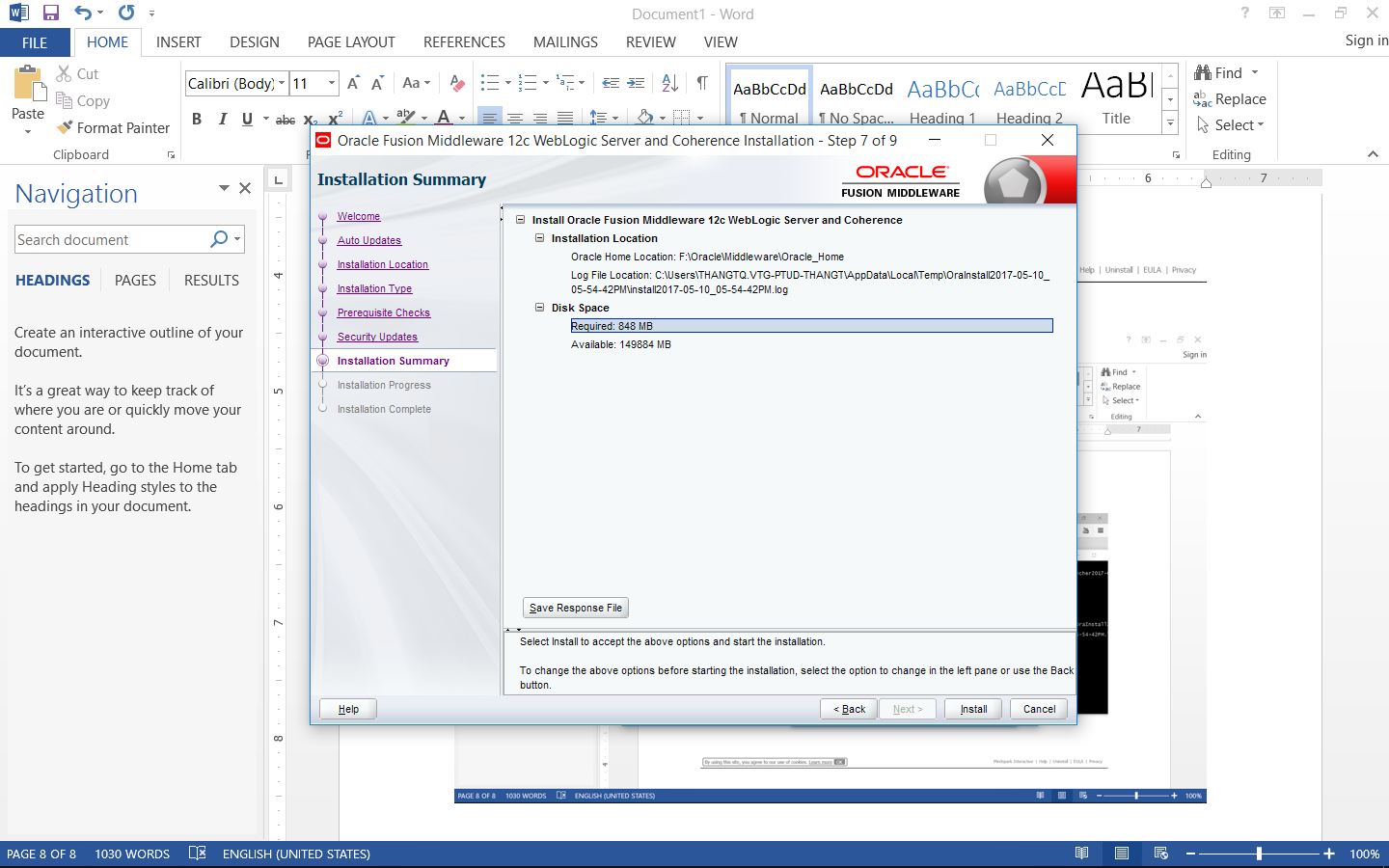
This printer is far superior at handling gradients and photographic-esque images than screen printing, and while it does a very impressive job of rendering blocks colours, it is best to avoid very large expanses of single colour area, particularly if those areas are white.

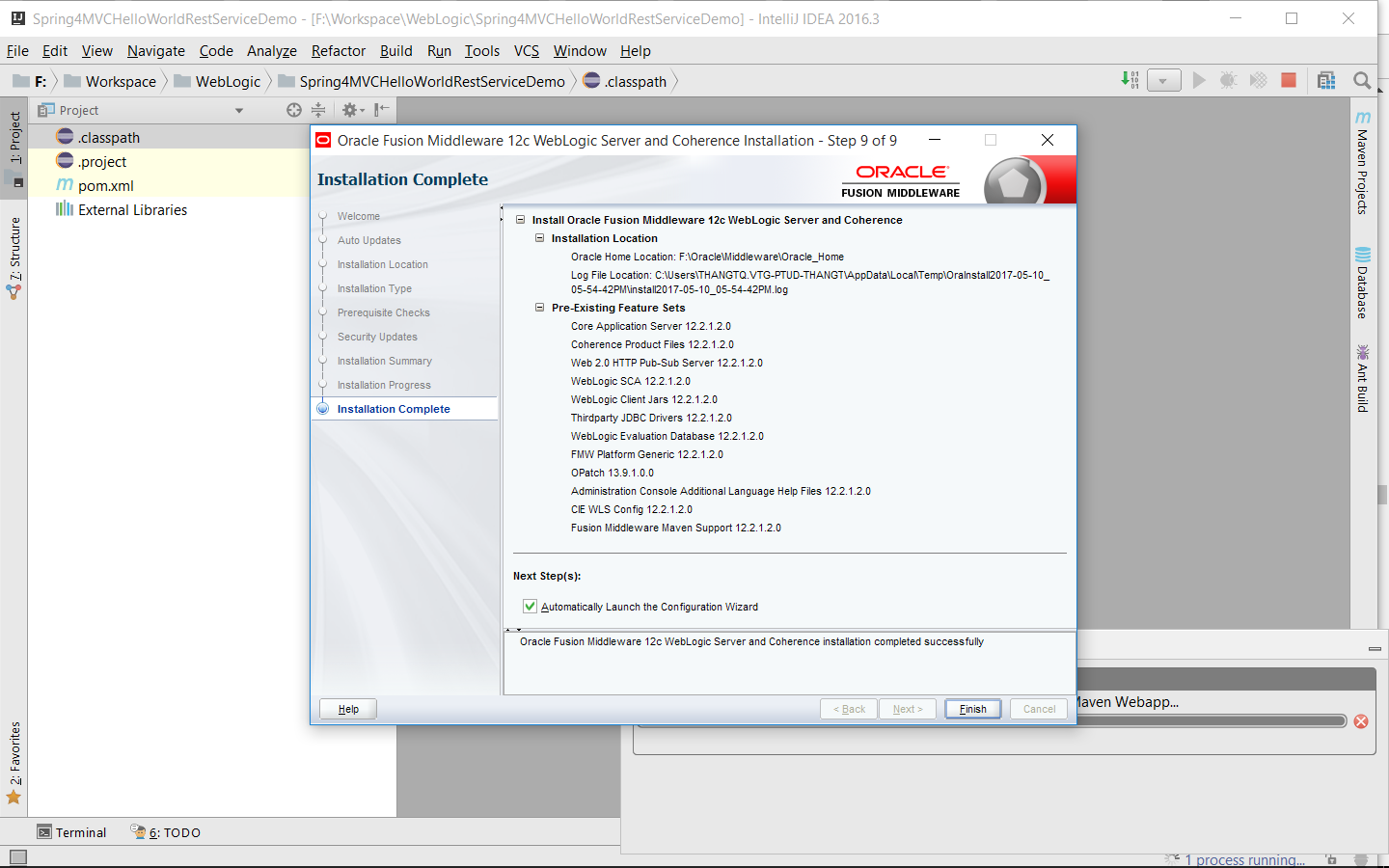
Some quick important rules to follow and remember:

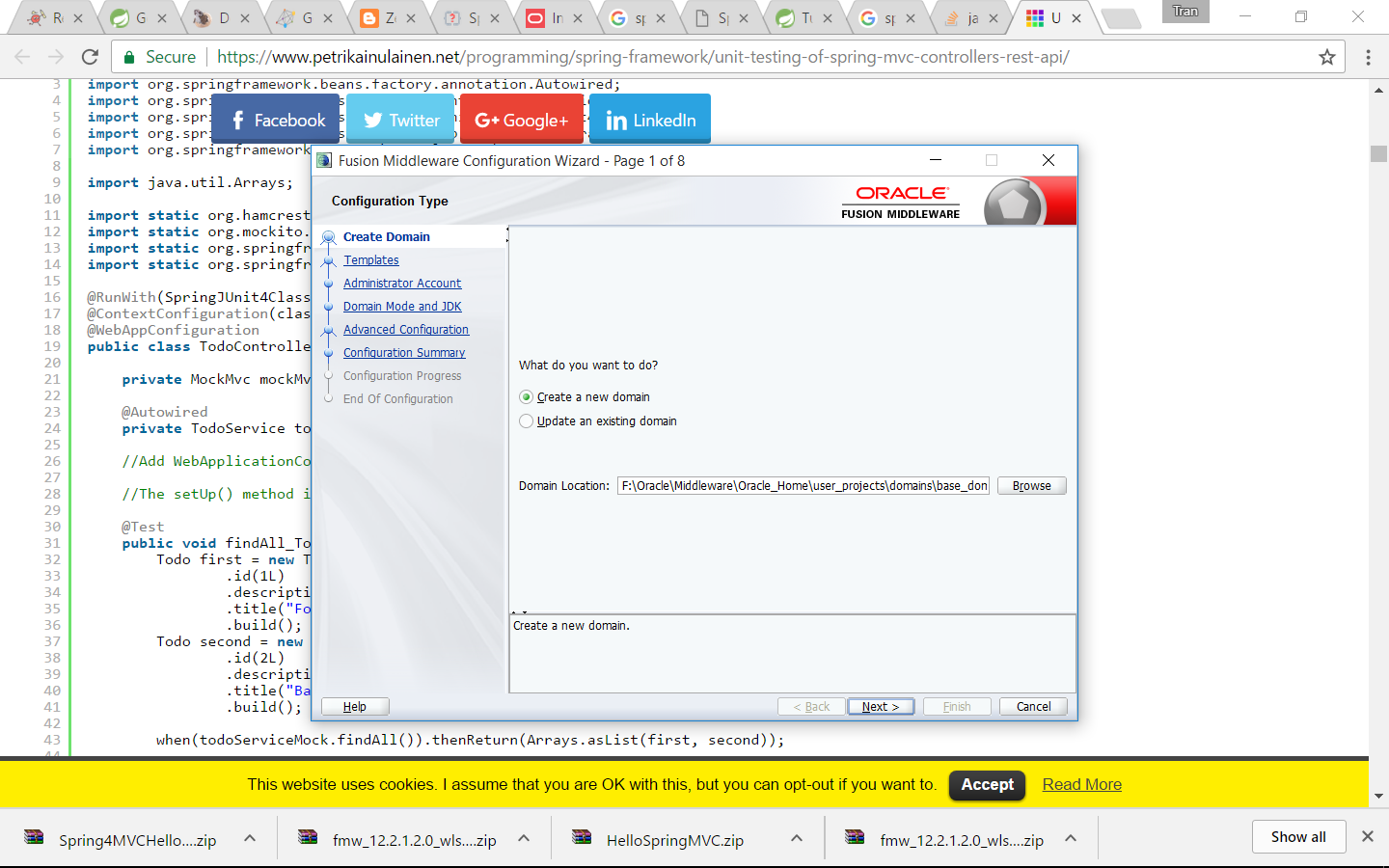
1. Gradients from a colour fading out to nothing on dark tees are VERY hard to render.
2. Very fine type using white ink on dark tees can also be tricky.
3. Very large block areas of a single colour should be avoided.

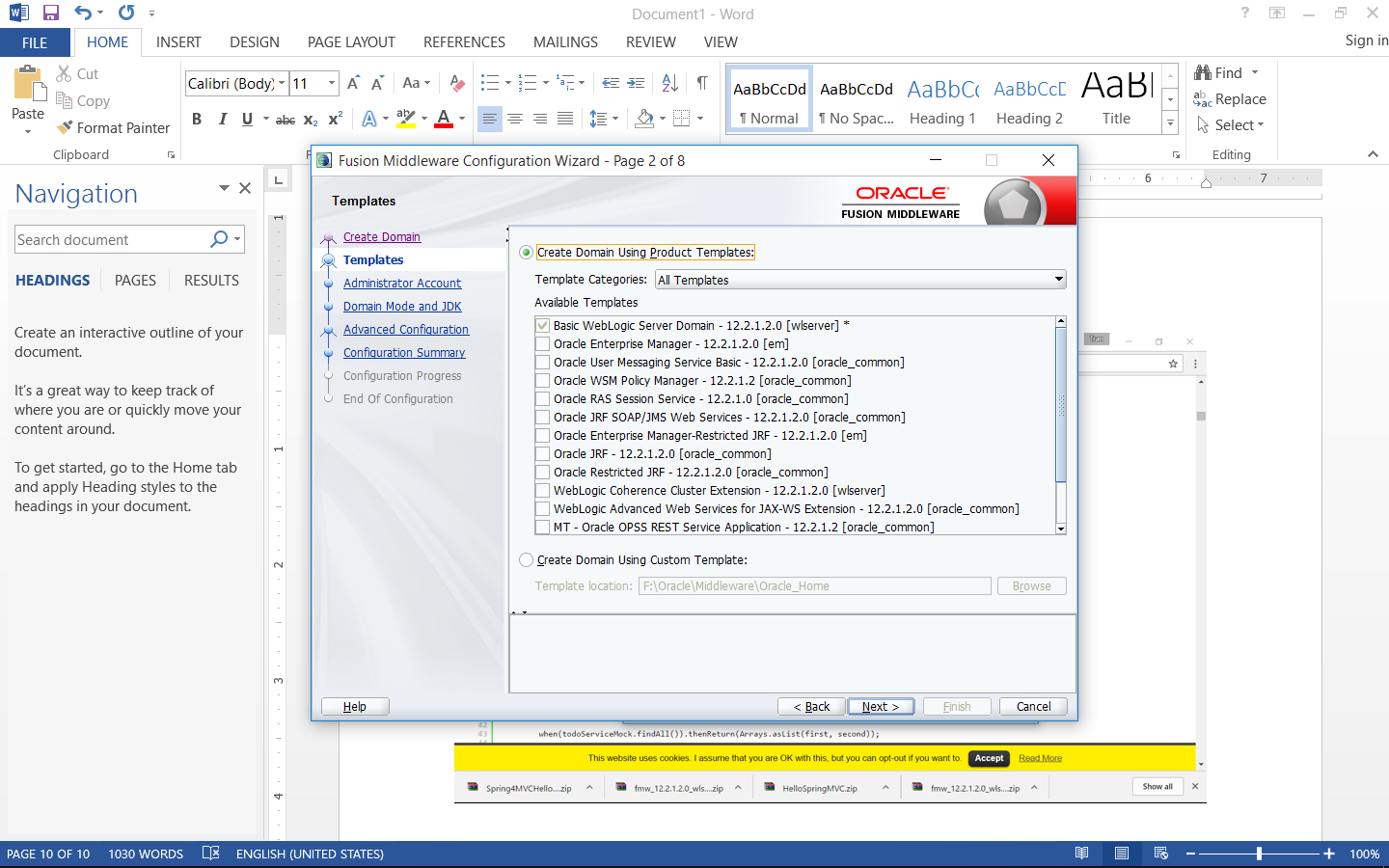


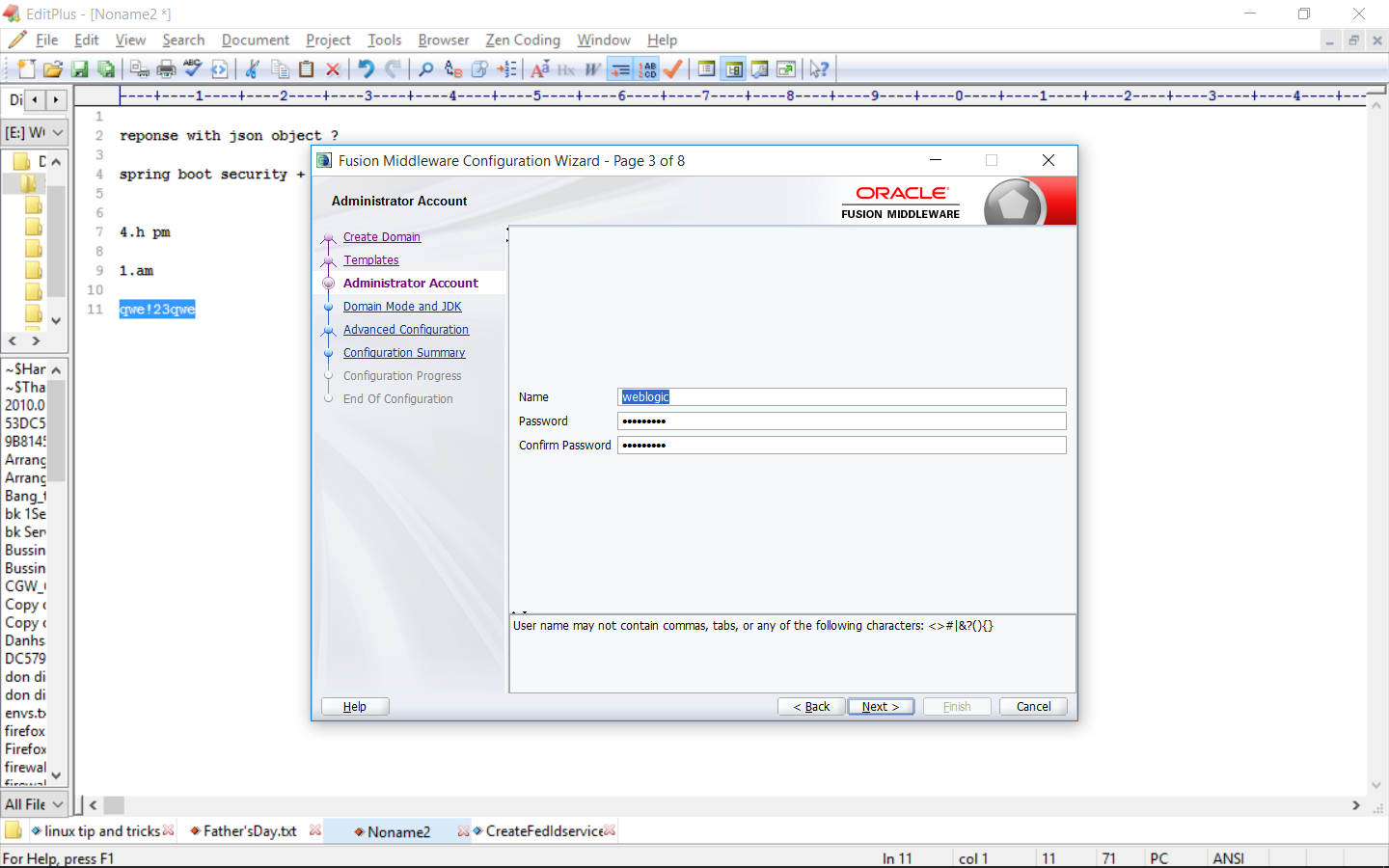












Pass: qwe!23qwe

