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## **Photoshop Spiral Galaxy Tutorial**

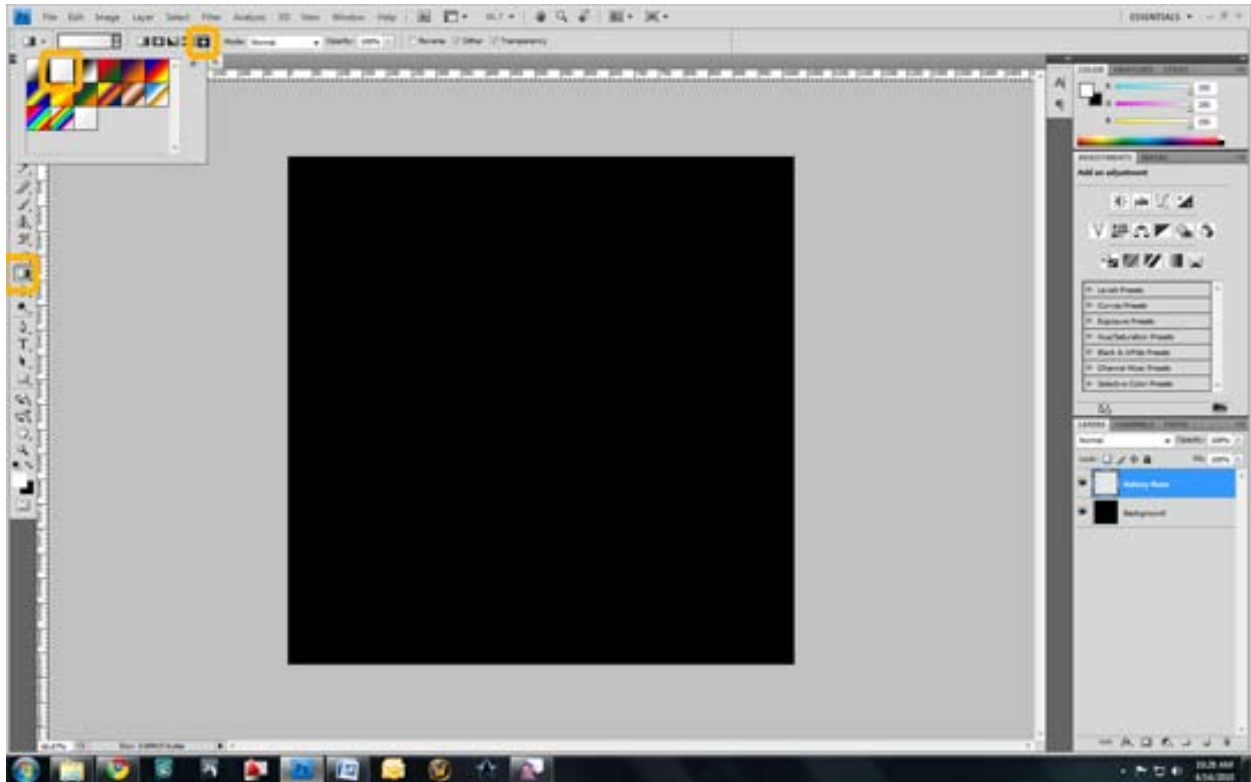
Today we're going to paint a spiral galaxy in Photoshop. As with any of the other tutorials offered on this site, there's lots of room for customization and endless possible outcomes depending on what you want your final piece to be.

For me, a spiral galaxy is typically a background object in a space composition, but with a lot of detail, the galaxy itself can be your key subject. We'll cover some basics here, then go a little into how to up the detail level.

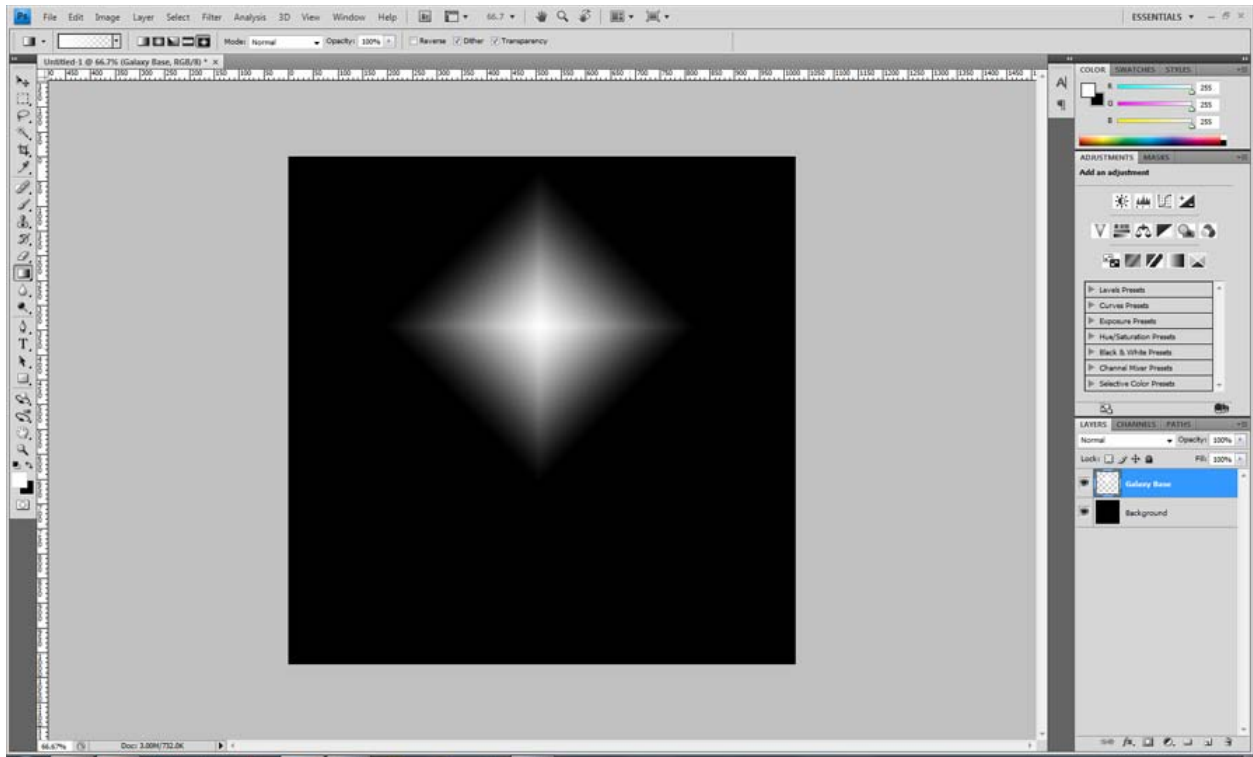
**1)** Begin with a new document, 1024x1024, with a transparent background, 150ppi resolution, in 8 bit RGB mode. You can fill the background layer black, or tile a star pattern on it if you like, to give you some contrast that will help with seeing your work on the galaxy.

**2)** Create a new layer and call it "galaxy base." Set your foreground color to white, then select the gradient tool (shortcut G, which is shared with the paint bucket tool). You may need to expand the paint bucket on your toolbar to get the gradient tool.

From there, in the top options bar, you'll need to select a diamond gradient, and set the gradient to foreground to transparent, highlighted in the image below:



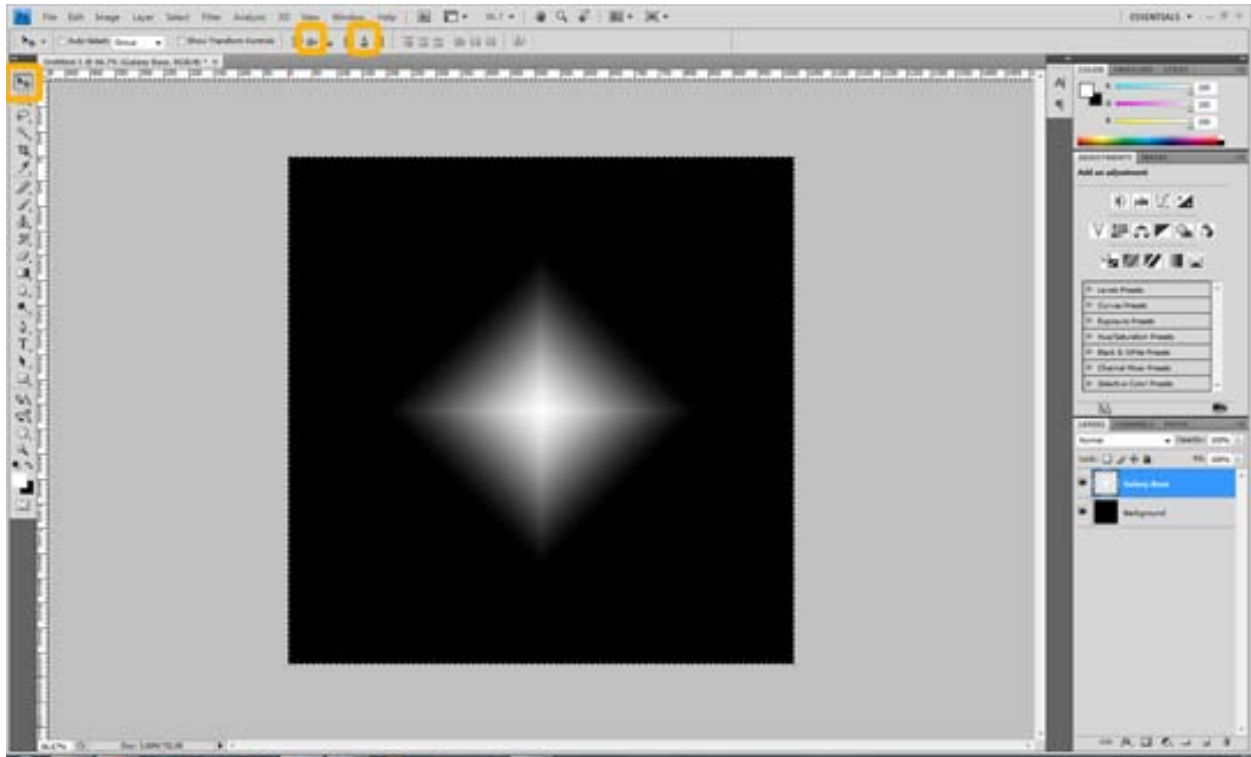
**3)** Using the diamond gradient tool with these settings, draw a gradient near the center of the canvas. You can draw from top to bottom, bottom to top, left to right, or any way you desire, as long as the resulting diamond gradient does not exceed the edges of the canvas. Mine looked like this:



**4)** In order for the filters we will be using to work properly, we should center the gradient on the canvas. This can be done automatically by Photoshop, saving the hassle of measuring with the guides and rulers and manually moving the gradient.

To center an object on a layer, you first have to define the area you want to center it to with a selection. In this case, since we want to center it to the entire canvas, we can use the keyboard shortcut Control-A to select the entire canvas. This tells Photoshop that the element on that layer should be centered on that selection.

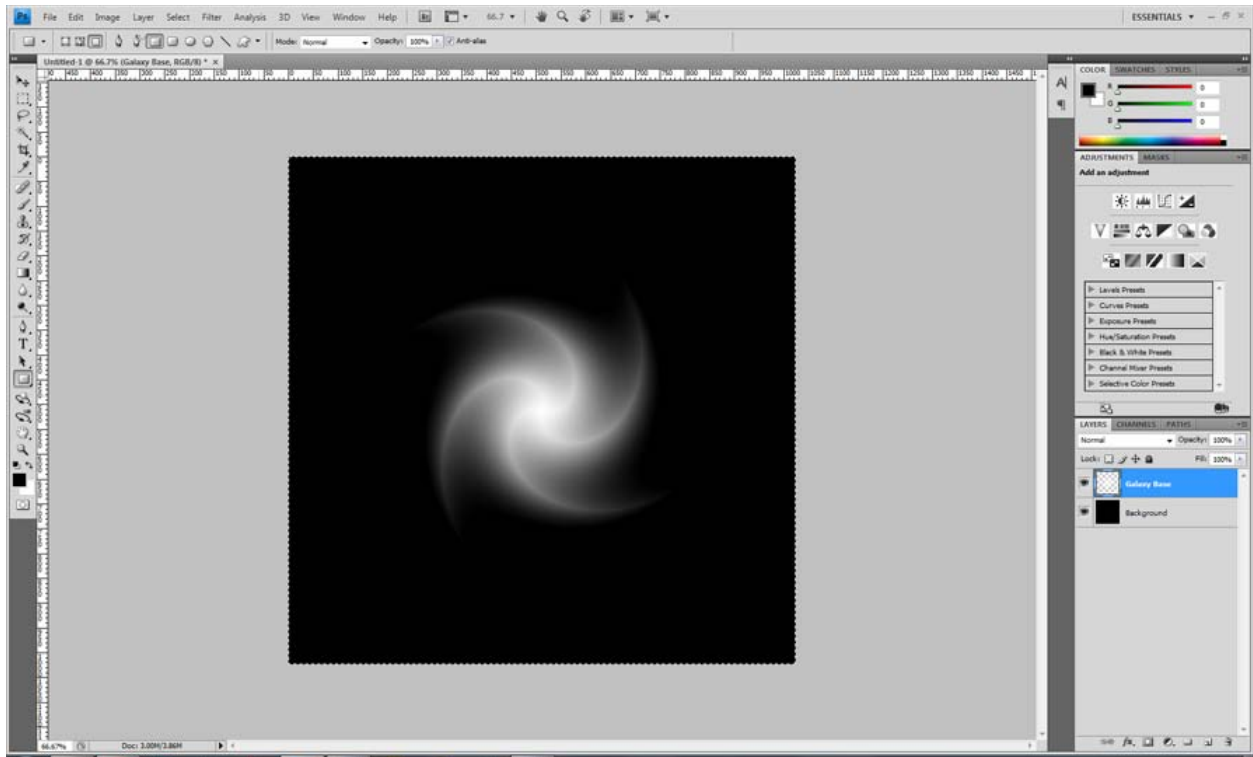
Centering is done with the move tool, which is the first tool on your toolbar, or Control-V for the keyboard shortcut. You will need to click the following two boxes in order to center your gradient to the selected area:



5) Now that the gradient is centered, we can begin turning it into a spiral galaxy. Make sure you still have the entire canvas selected, go to the Filters menu, and select Filter --> Distort --> Twirl.

The default setting should be 50%. We can increase this amount for a more dramatic twirl effect, but we can also re-apply the same filter numerous times with the Control-F shortcut. So we'll apply the twirl with a 50% setting, click OK, and then twirl it another time or two using the Control-F shortcut until we're happy with the result.

This is how my example turned out:



I ended up using the Control-F shortcut 3 additional times to get this amount of twirl. You may have used more or less, depending on how much twirl you wanted to your galaxy.

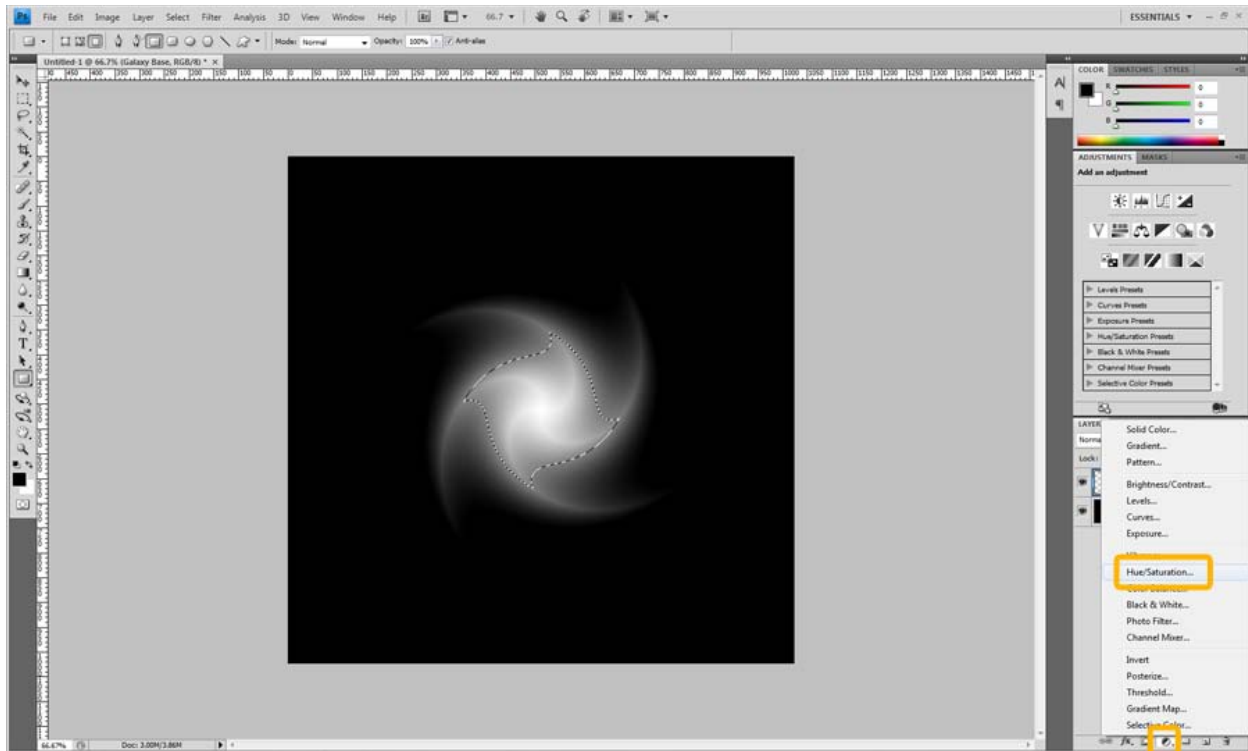
**6)** This represents the bulk of the work in creating the shape of the galaxy. You can already see the spiral arms and the bright center. You can also experiment with twirling other types of shapes to get different results.

The rest of the tutorial from this point is customization: coloring and adding in detailed layers to give our galaxy a little more character.

**7)** The first thing I would do would be to change the color of the galaxy so it isn't plain white. To do this, we will add an adjustment layer and adjust the hue, saturation, and brightness. Adjustment layers perform all the same effects as those located under Image --> Adjustments in the menu bar, but instead of applying the effect globally (and permanently), we can apply the effect locally and on its own layer, so we can turn the effect on and off later.

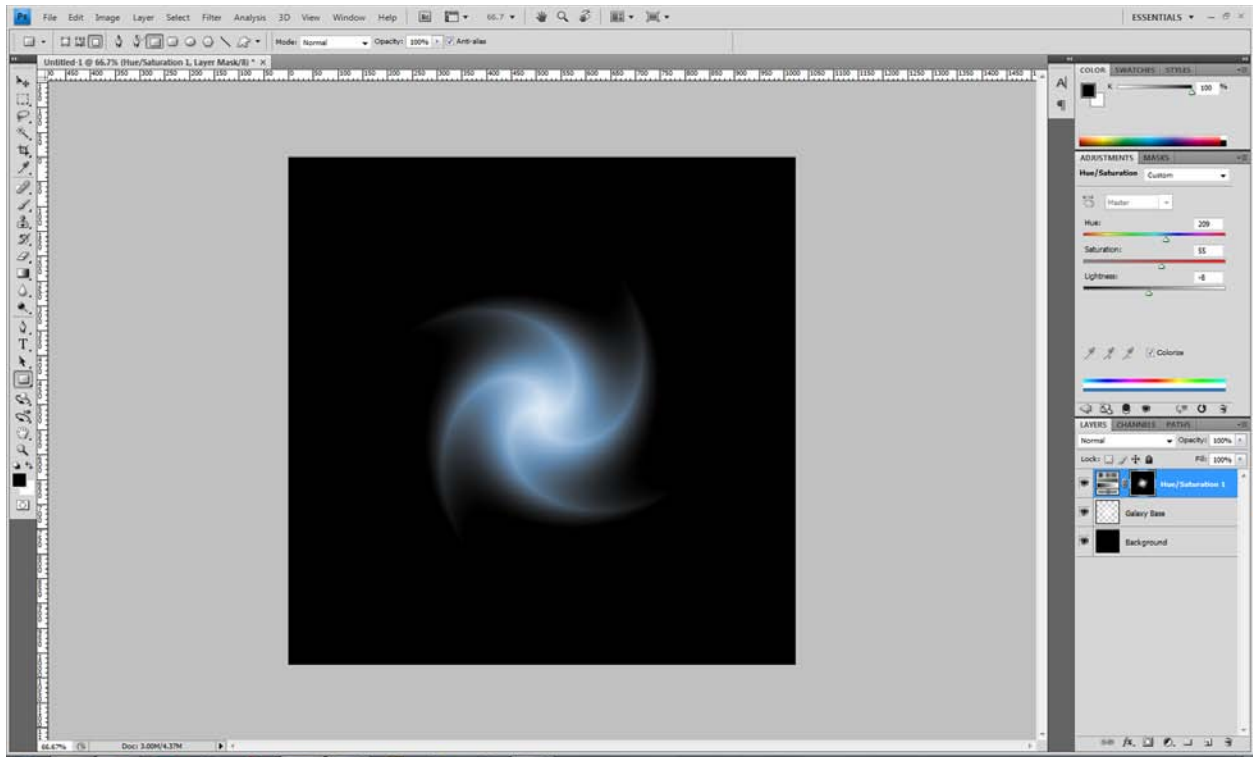
To do this, you will need to clear your current selection (which should be the entire layer) by using the shortcut Control-D, or the menu option Select --> Deselect.

Now we'll select just our gradient. Holding the control key on your keyboard, click on the layer thumbnail in the layer pallet. This will select just the galaxy and nothing else on that layer. Then roll out the adjustment layer option at the bottom of the layer pallet and select Hue and Saturation, as illustrated below:



This will create a new layer above Galaxy Base, linked to a layer mask created by having selected the galaxy element before applying the adjustment layer. You should also see a new adjustment pallet open above your layer pallet with the familiar controls for adjusting hue and saturation.

Click the colorize box, and adjust the hue, saturation, and brightness sliders until you have a color and intensity that you're happy with. I went with a pale blue color:



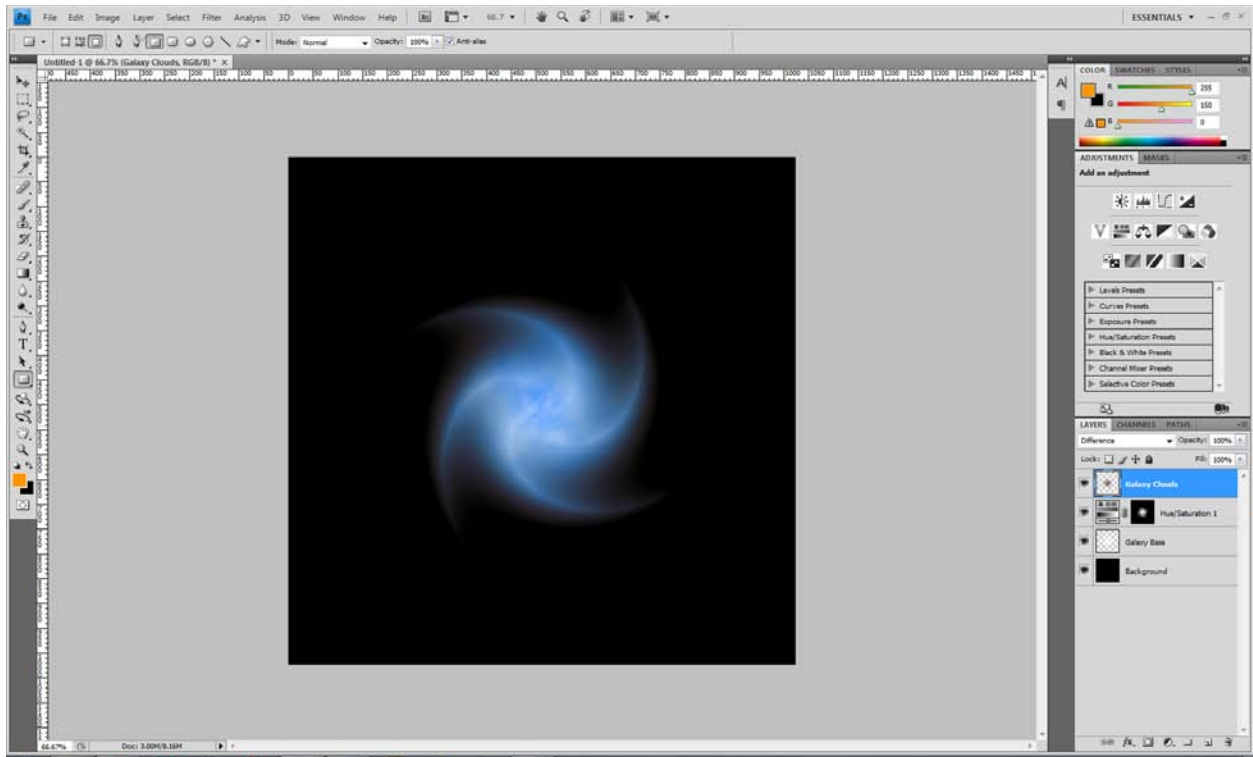
**8)** It's looking good, but we can add a bit more detail if we like. If you Google images of spiral galaxies, you'll see that a lot of them have a cloudy look. We can add an effect like this on a new layer.

Create a new layer and name it "Galaxy Clouds." We will want to constrain our clouds to fill only the galaxy area instead of filling the entire screen. Use the shortcut Control-D to clear the current selection, then control-click on the layer thumbnail of Galaxy Base.

Set your foreground color to whatever color you want the clouds to be, and the background color to black. Then, making sure the Galaxy Clouds layer is active, use the menu option Filter --> Render --> Clouds. Then immediately apply Filter --> Render --> Difference Clouds, and hit control-F until you're happy with the pattern.

When you're happy with the cloud pattern, you'll need to set the blending mode of Galaxy Clouds to get a look you like.

You should have something that looks like this:



9) At this point, if you're using your galaxy as a small background element in a larger composition, you could consider it done. If you want to add additional details, you can create new layers with different colored clouds, following step 8, or even make a selection and create a starfield pattern within the galaxy itself.

Whatever the case, the final step is to tilt the galaxy and rotate it so it appears to be on edge. In order to do this, you'll have to link all the layers.

Select every layer except the background layer by control-clicking them in the layer pallet until all your galaxy layers (including the adjustment layer) are active. Then right click on the layer pallet, and select "link layers."

On the canvas, use the shortcut Control-T to enter free transform mode. Grab the top center box, and move it down until your galaxy is flattened an amount to your liking, then rotate it, again to your liking. My finished galaxy looked like this:



I hope you enjoyed this tutorial. As always, you can feel free to email me with questions, comments, or suggestions. Good luck!