

JFREECHART - 3D PIE/BAR CHART

http://www.tutorialspoint.com/jfreechart/jfreechart_3d_chart.htm

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The 3D charts are the ones, which appear in a three-dimensional format. You can use these charts to provide better display and clear information. A 3D Pie chart is same as the pie chart additionally with a nice 3D effect. A 3D effect can be achieved by adding a little extra code which will take care of creating 3D effect in a pie chart.

3D Pie chart

Consider the following example to depict mobile sale with the help of a 3D pie chart. Following is a list of different mobile brands and their sale *unitsperday*.

S.N.	Mobile Brands	Sales <i>UNITSperryday</i>
1	Iphone 5S	20
2	Samsung Grand	20
3	MOTO G	40
4	Nokia Lumia	10

Following is the code to create 3D Pie Chart from the above given information. This code helps you embed a pie chart in any AWT based application.

```
import java.io.*;
import org.jfree.chart.ChartFactory;
import org.jfree.chart.JFreeChart;
import org.jfree.chart.plot.PiePlot3D;
import org.jfree.data.general.DefaultPieDataset;
import org.jfree.chart.ChartUtilities;

public class PieChart3D
{
    public static void main( String[ ] args )throws Exception
    {
        DefaultPieDataset dataset = new DefaultPieDataset( );
        dataset.setValue( "IPhone 5s" , new Double( 20 ) );
        dataset.setValue( "SamSung Grand" , new Double( 20 ) );
        dataset.setValue( "MotoG" , new Double( 40 ) );
        dataset.setValue( "Nokia Lumia" , new Double( 10 ) );

        JFreeChart chart = ChartFactory.createPieChart3D(
            "Mobile Sales" , // chart title
            dataset ,         // data
            true ,            // include legend
            true,
            false);

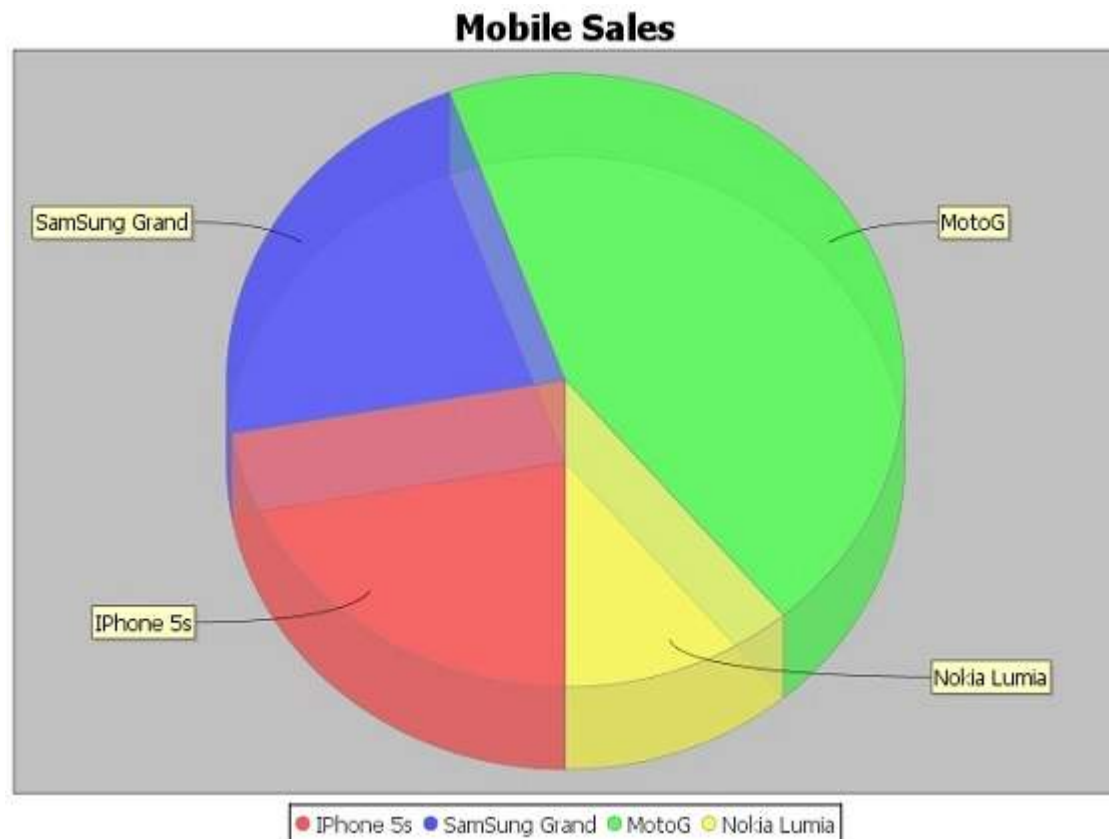
        final PiePlot3D plot = ( PiePlot3D ) chart.getPlot( );
        plot.setStartAngle( 270 );
        plot.setForegroundAlpha( 0.60f );
        plot.setInteriorGap( 0.02 );
        int width = 640; /* Width of the image */
        int height = 480; /* Height of the image */
        File pieChart3D = new File( "pie_Chart3D.jpeg" );
        ChartUtilities.saveChartAsJPEG( pieChart3D , chart , width , height );
    }
}
```

Let us keep the above Java code in **PieChart3D.java** file, and then compile and run it from

command prompt as follows :

```
$javac PieChart3D.java
$java PieChart3D
```

If everything is fine , it will compile and run to create JPEG image file named **PieChart3D.jpeg** having the following 3D Pie Chart :



3D Bar Chart

A 3D Bar chart is same as the bar chart additionally with a nice 3D effect. A 3D effect can be achieved by adding a little extra code which will take care of creating 3D effect in a bar chart. Consider the following example that depicts various car statistics with the help of a 3D bar chart. Following is a list of car brands along with their different characteristics, which we will show using a bar chart :

Car	Speed	User Rating	Millage	Safety
FIAT	1.0	3.0	5.0	5.0
AUDI	5.0	6.0	10.0	4.0
FORD	4.0	2.0	3.0	6.0

Following code creates 3D Bar Chart from the above given information. This code helps you embed a bar chart in any AWT based application.

```
import java.io.*;
import org.jfree.chart.ChartFactory;
import org.jfree.chart.JFreeChart;
import org.jfree.chart.plot.PlotOrientation;
import org.jfree.data.category.DefaultCategoryDataset;
import org.jfree.chart.ChartUtilities;

public class BarChart3D
{
    public static void main( String[ ] args )throws Exception
```

```

{
    final String fait = "FAIT";
    final String audi = "AUDI";
    final String ford = "FORD";
    final String speed = "Speed";
    final String popular = "Popular";
    final String mailage = "Mailage";
    final String userrating = "User Rating";
    final String safty = "safty";
    final DefaultCategoryDataset dataset = new DefaultCategoryDataset( );

    dataset.addValue( 1.0 , fait , speed );
    dataset.addValue( 4.0 , fait , popular );
    dataset.addValue( 3.0 , fait , userrating );
    dataset.addValue( 5.0 , fait , mailage );
    dataset.addValue( 5.0 , fait , safty );
    dataset.addValue( 5.0 , audi , speed );
    dataset.addValue( 7.0 , audi , popular );
    dataset.addValue( 6.0 , audi , userrating );
    dataset.addValue( 10.0 , audi , mailage );
    dataset.addValue( 4.0 , audi , safty );
    dataset.addValue( 4.0 , ford , speed );
    dataset.addValue( 3.0 , ford , popular );
    dataset.addValue( 2.0 , ford , userrating );
    dataset.addValue( 3.0 , ford , mailage );
    dataset.addValue( 6.0 , ford , safty );
    JFreeChart barChart = ChartFactory.createBarChart3D(
        "Car Usage Statistics",
        "Category",
        "Score",
        dataset,
        PlotOrientation.VERTICAL,
        true, true, false);

    int width = 640; /* Width of the image */
    int height = 480; /* Height of the image */
    File barChart3D = new File( "barChart3D.jpeg" );
    ChartUtilities.saveChartAsJPEG( barChart3D, barChart, width, height);
}
}

```

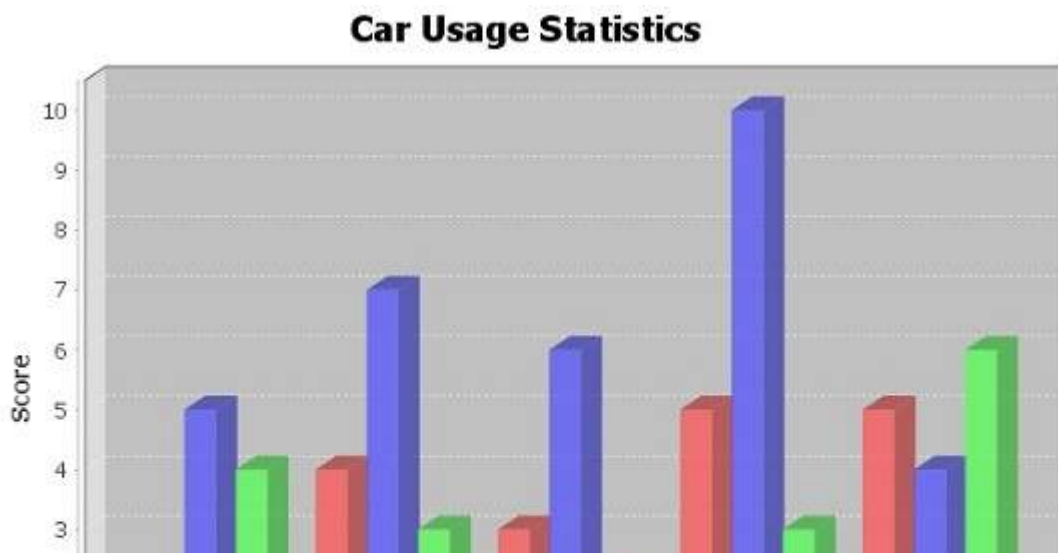
Let us keep the above Java code in **BarChart3D.java** file, and then compile and run it from command prompt as follows :

```

$javac BarChart3D.java
$java BarChart3

```

If everything is fine with your environment, it will compile and run to create JPEG image file **BarChart3D.jpeg** having the following 3D Bar Chart:





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