

Lab 5- GGPlot Using Python (09/01/2018)

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In [12]:

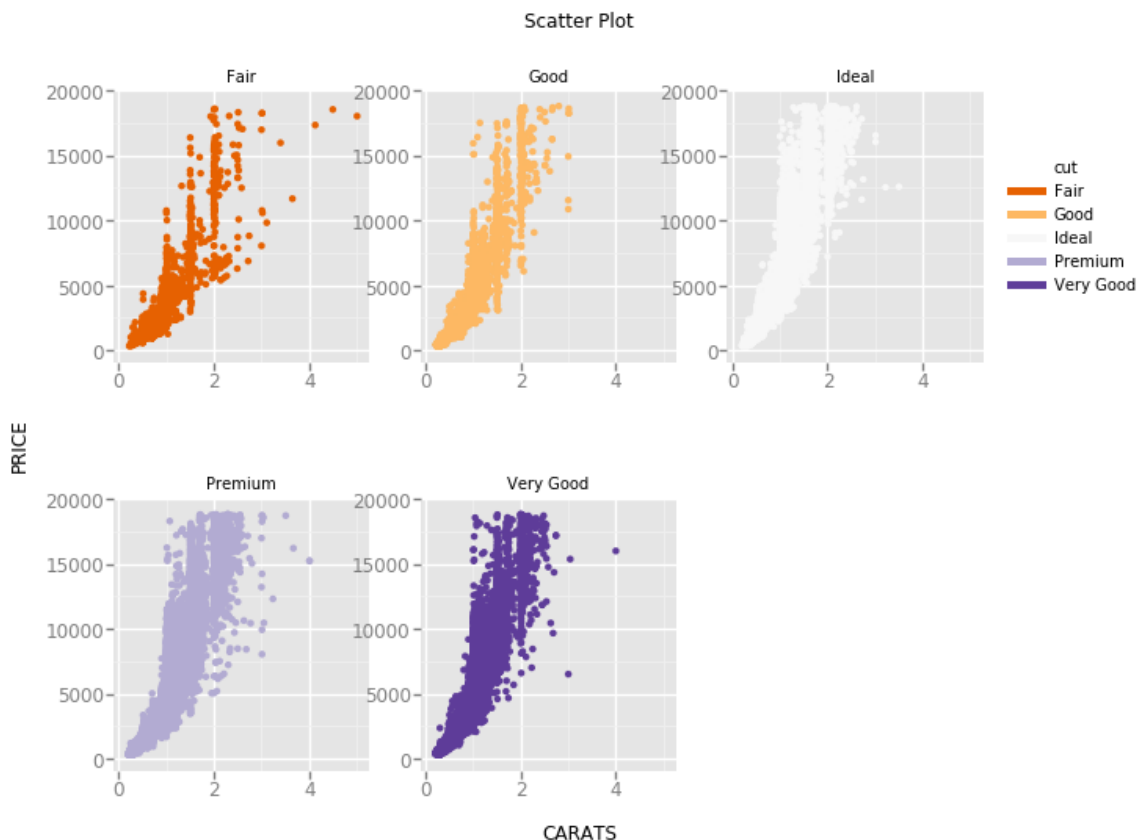
```
import numpy as np # linear algebra
import pandas as pd # data processing, CSV file I/O (e.g. pd.read_csv)

#Importing the Diamonds dataset
from subprocess import check_output
print(check_output(["ls", "../input"]).decode("utf8"))

diamonds.csv
```

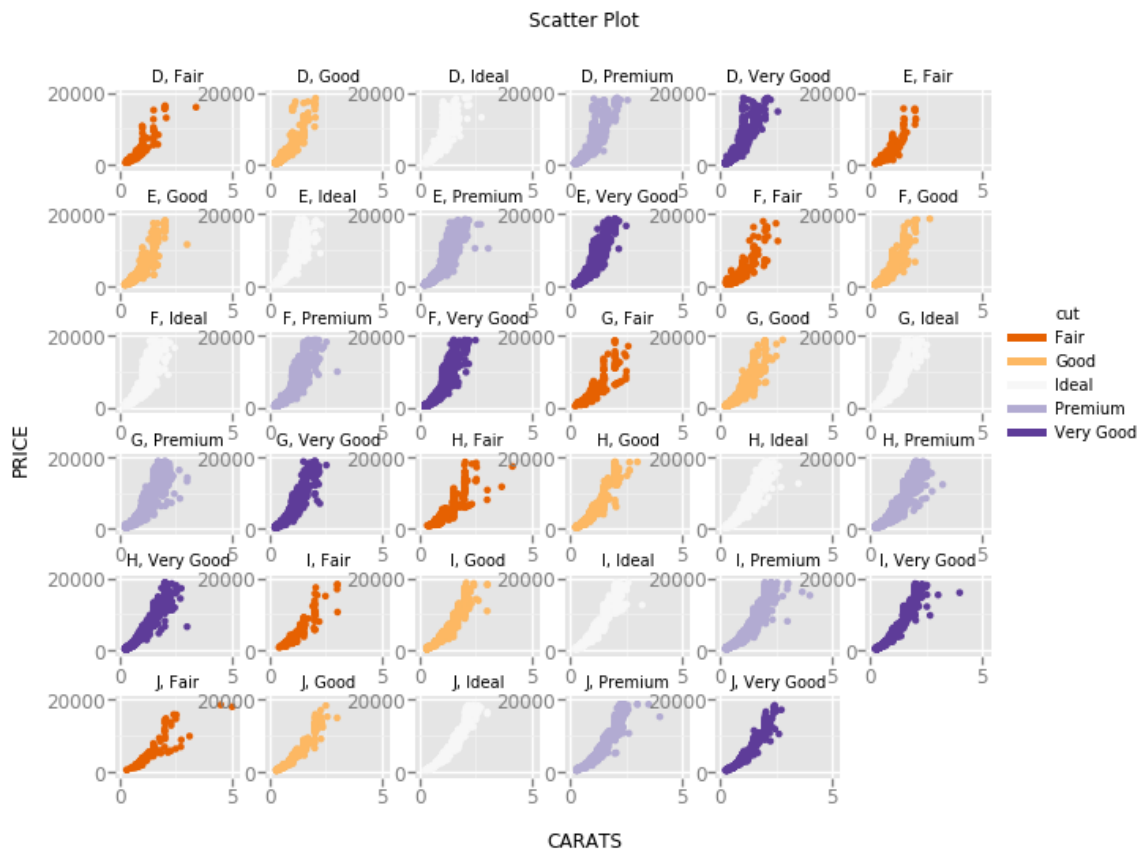
In [8]:

```
# Scatter Plots in Subplot for Diamonds Dataset
# With 'Carats' and 'Price' on Axis and their respective Labels
# For 5 classes of 'Cuts'
g2 = ggplot(aes(x='carat',y='price', color='cut'),data=data_file)
+geom_point()
+xlabel("CARATS")+ylabel("PRICE")
+scale_color_brewer(type='diverging', palette=4)
+ggtitle("Scatter Plot")
+facet_wrap('cut',ncol=3)
g2.show()
```



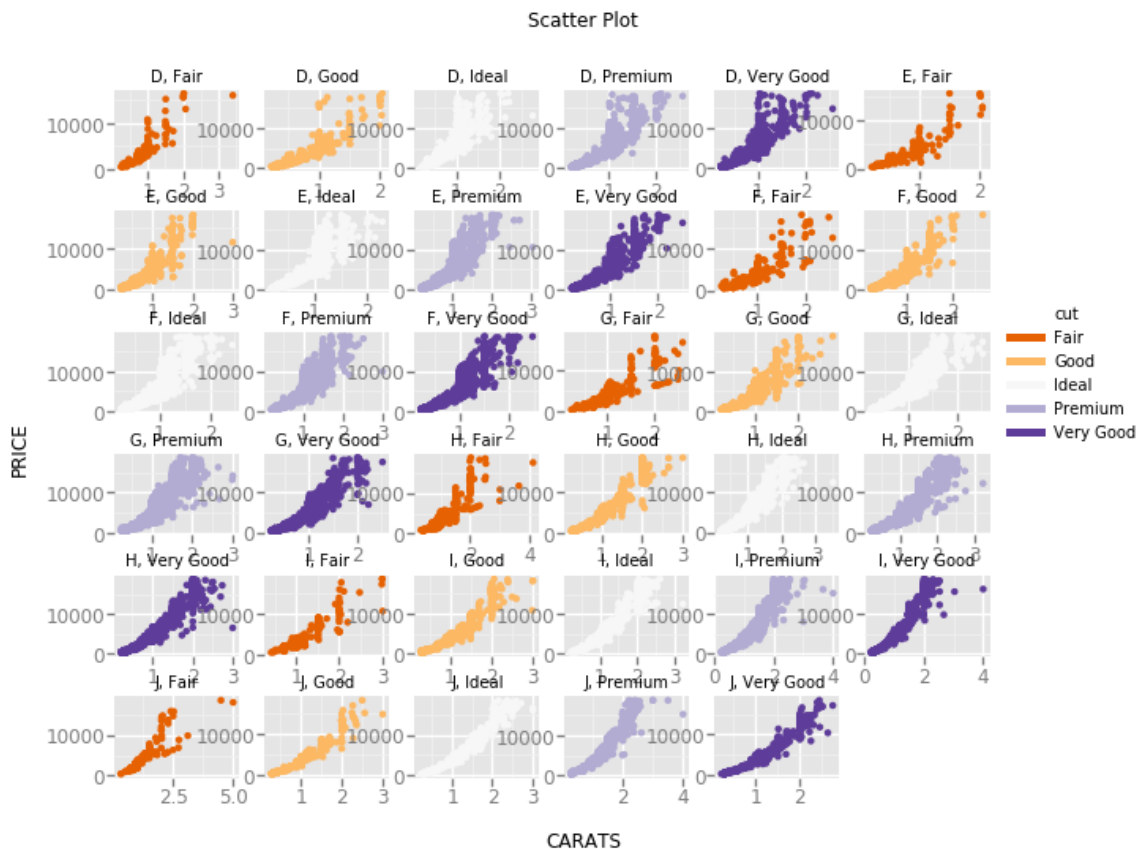
In [9]:

```
# PairPlot in Subplot for Diamonds Dataset
# With 'Carats' and 'Price' on Axis and their respective Labels
# For 5 classes of 'Cuts' and 5 representing colors
g3 = ggplot(aes(x='carat',y='price', color = 'cut'),data=data_file)
+geom_point()
+xlabs("CARATS")+ylab("PRICE")
+scale_color_brewer(type='diverging', palette=4)
+ggtitle("Scatter Plot")
+facet_wrap('color','cut')
g3.show()
```



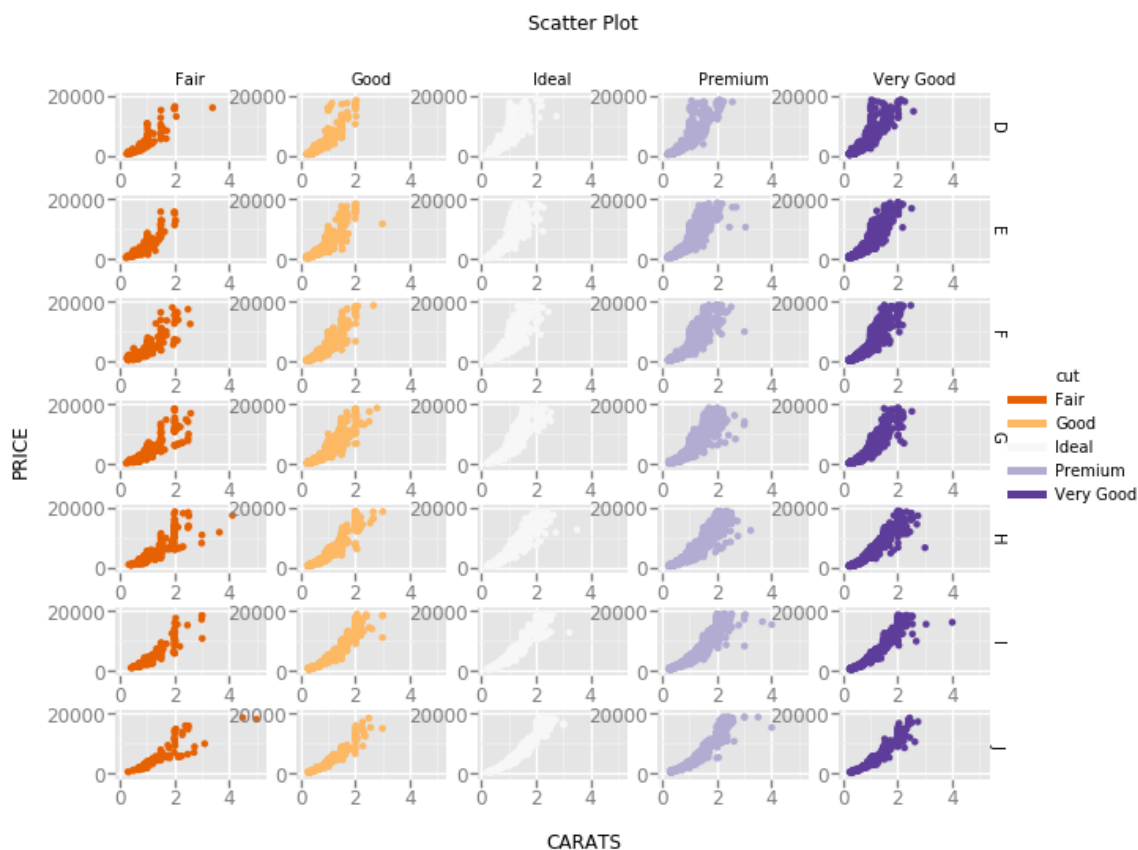
In [10]:

```
# PairPlot in Subplot for Diamonds Dataset
# With 'Carats' and 'Price' on Axis and their respective Labels
# For 5 classes of 'Cuts' With Free Scales
g4 = ggplot(aes(x='carat',y='price', color = 'cut'),data=data_file)
+geom_point()
+xlabs("CARATS")+ylab("PRICE")
+scale_color_brewer(type='diverging', palette=4)
+ggtitle("Scatter Plot")
+facet_wrap('color','cut', scales='free')
g4.show()
```



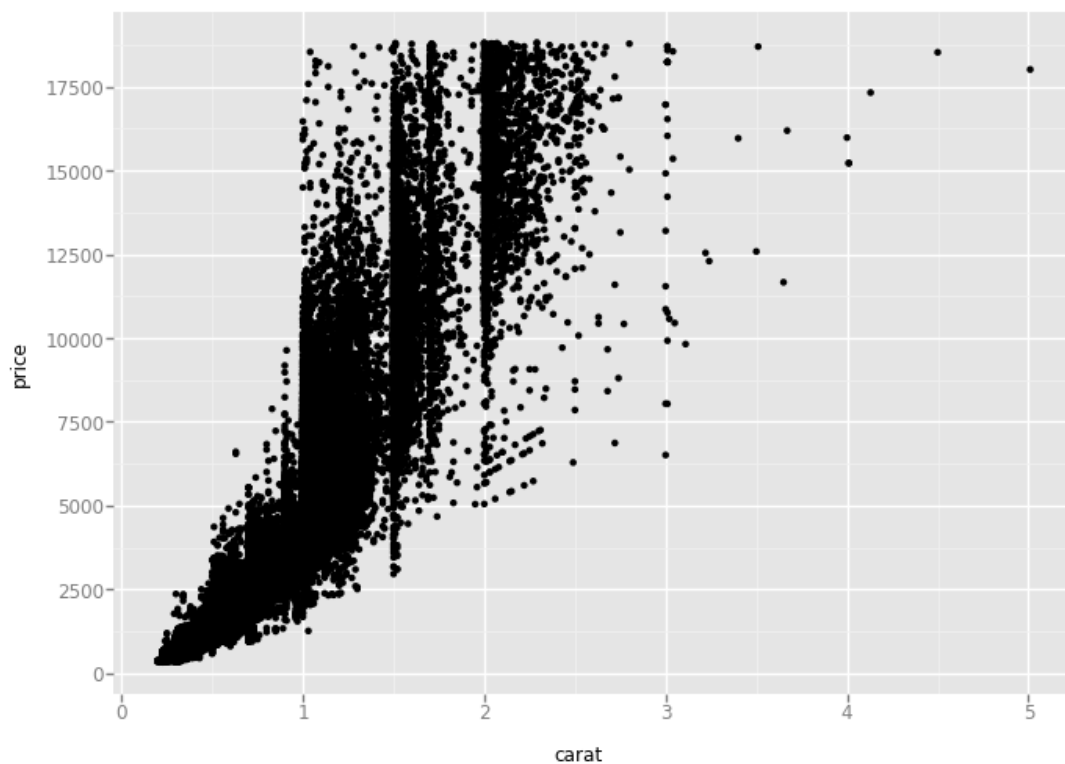
In [13]:

```
# PairPlot in Subplot for Diamonds Dataset
# With 'Carats' and 'Price' on Axis and their respective Labels
# For 5 classes of 'Cuts'
# Aligned according to classes/color (Cut)
g5 = ggplot(aes(x='carat',y='price', color='cut'),data=data_file)
+geom_point()
+xlabs("CARATS")+ylab("PRICE")
+scale_color_brewer(type='diverging', palette=4)
+ggtitle("Scatter Plot")
+facet_grid('color', 'cut')
g5.show()
```



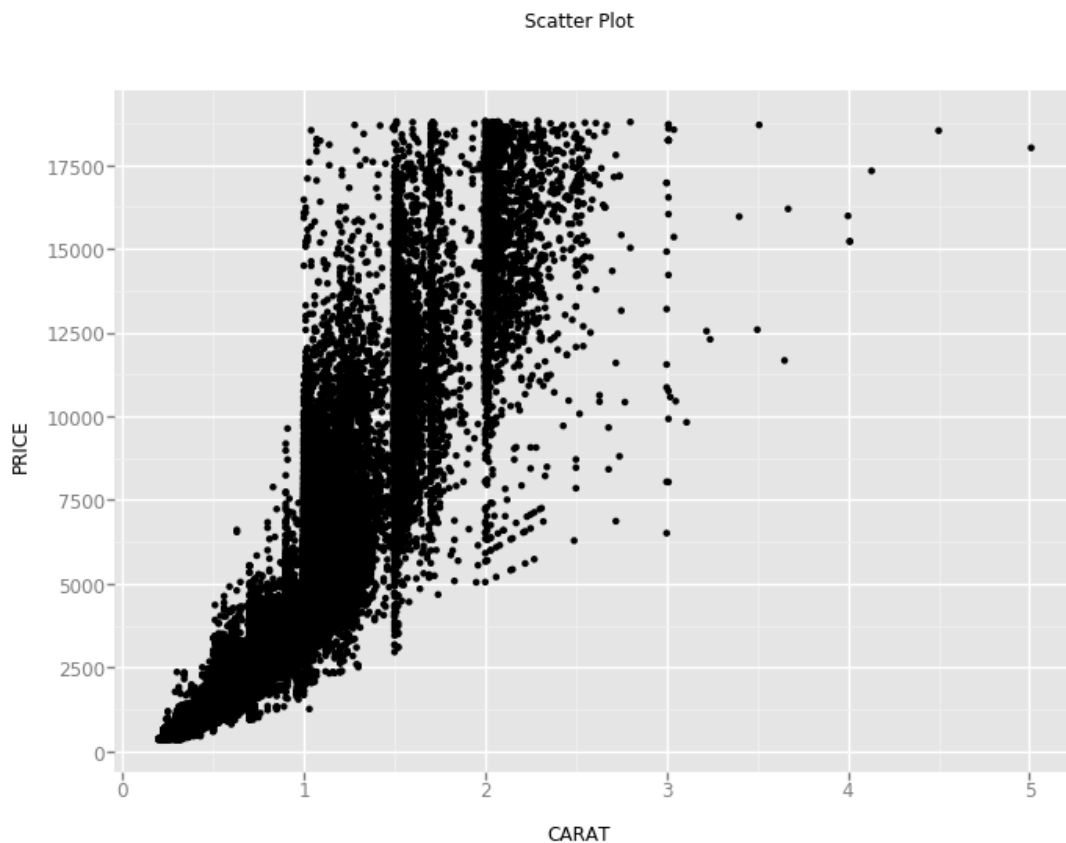
In [18]:

```
#GGPlot of Diamonds Dataset with Carat and Price as Axis  
g8=ggplot(aes(x='carat', y='price'),data=data_file)  
+geom_point()  
g8.show()
```



In [21]:

```
# GGPlot of Diamonds Dataset with Carat and Price as Axis  
# With respective Labels  
g9 = ggplot(aes(x='carat',y='price'),data=data_file)  
+geom_point()  
+labs(title="Scatter Plot", x="CARAT", y="PRICE")  
g9.show()
```



In [22]:

```
# GGPlot of Diamonds Dataset with 'Carat' and 'Price' as Axis  
# With respective Labels and Colors according to 'Cuts'  
g10 = ggplot(aes(x='carat',y='price', color = 'cut'),data=data_file)  
+geom_point()+labs(title="Scatter Plot", x ="CARAT", y="PRICE")  
+scale_color_brewer(type='diverging', palette=4)  
+ggtitle("Scatter Plot")  
g10.show()
```

