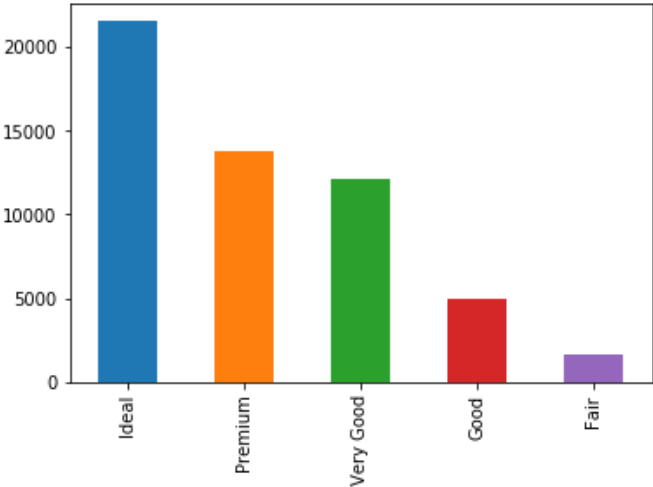
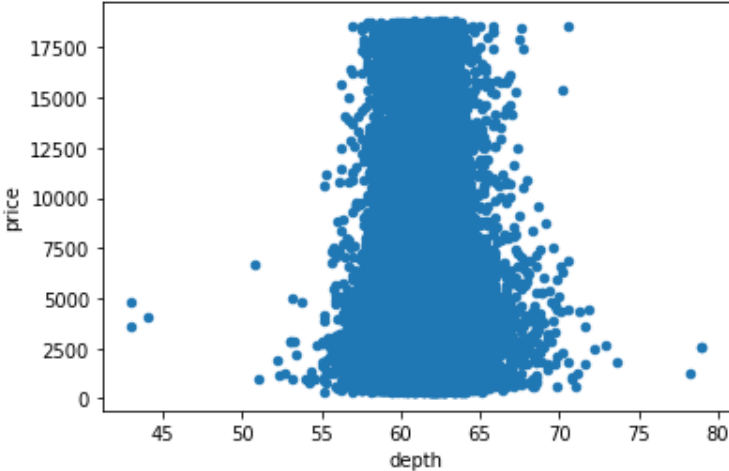
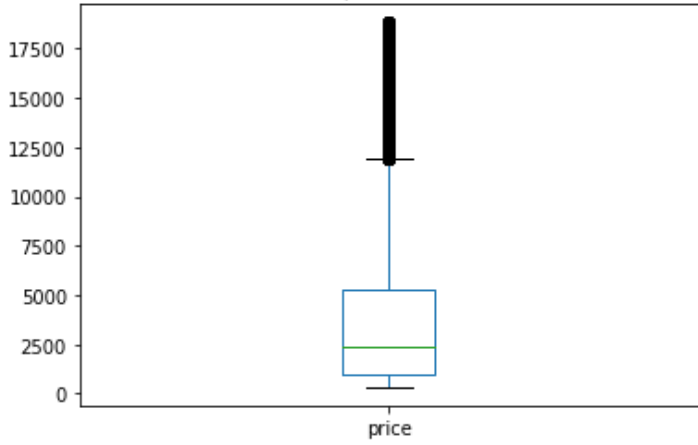
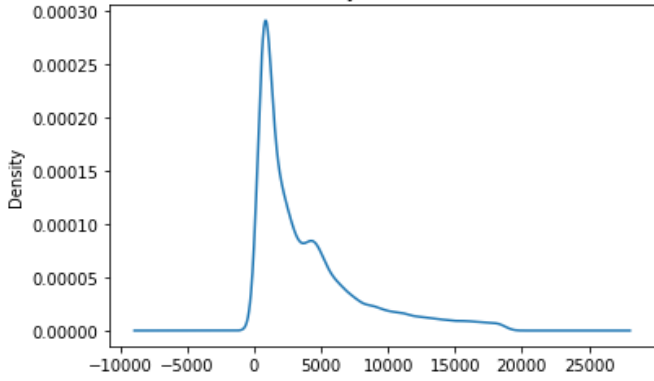


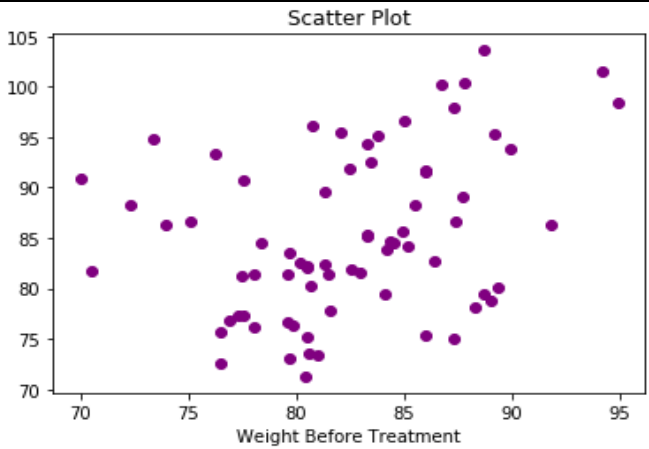
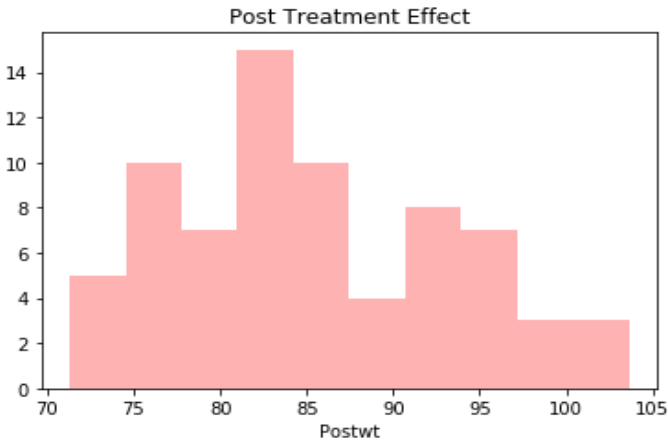
Lab Exercises

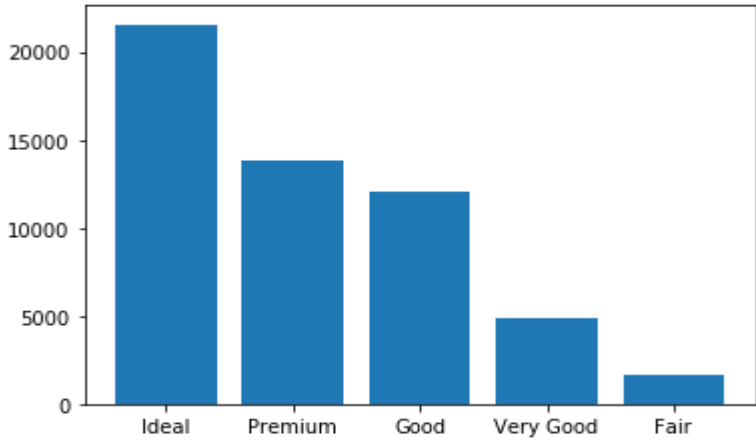
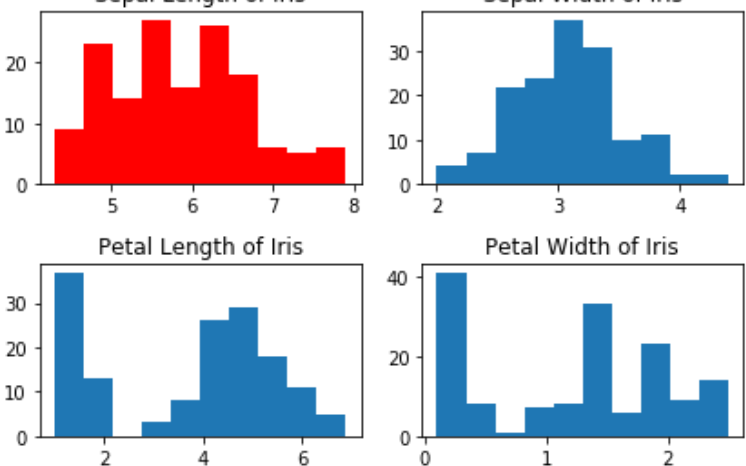
1. Generate the graphs considering the columns specified using **pandas** option

| | Graph Output | Dataset | Columns to be considered | | | | | | | | | | | | |
|-----------|---|--------------|--------------------------|-------|-------|---------|-------|-----------|-------|------|------|------|------|--------------|-----|
| a. | <p>Count of cut</p>  <table border="1"><thead><tr><th>Cut</th><th>Count</th></tr></thead><tbody><tr><td>Ideal</td><td>21000</td></tr><tr><td>Premium</td><td>14000</td></tr><tr><td>Very Good</td><td>12000</td></tr><tr><td>Good</td><td>5000</td></tr><tr><td>Fair</td><td>2000</td></tr></tbody></table> | Cut | Count | Ideal | 21000 | Premium | 14000 | Very Good | 12000 | Good | 5000 | Fair | 2000 | Diamonds.csv | cut |
| Cut | Count | | | | | | | | | | | | | | |
| Ideal | 21000 | | | | | | | | | | | | | | |
| Premium | 14000 | | | | | | | | | | | | | | |
| Very Good | 12000 | | | | | | | | | | | | | | |
| Good | 5000 | | | | | | | | | | | | | | |
| Fair | 2000 | | | | | | | | | | | | | | |
| b. | <p>Scatter Plot</p>  | Diamonds.csv | depth, price | | | | | | | | | | | | |

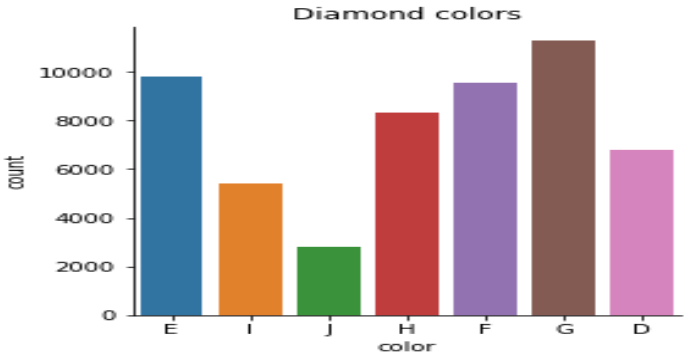
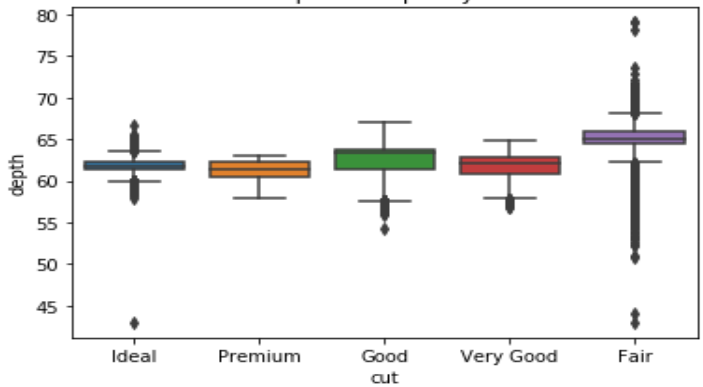
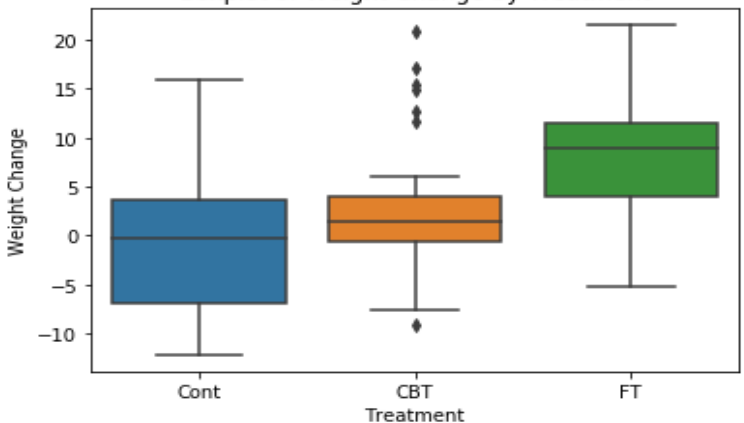
| | Graph Output | Dataset | Columns to be considered |
|----|--|--------------|--------------------------|
| c. | <p>Boxplot of Price</p>  <p>price</p> | Diamonds.csv | Price |
| d. | <p>Density Plot of Price</p>  | Diamonds.csv | Price |

2. Generate the following graphs with the variables specified using option from **matplotlib** library

| | Graph Output | Dataset | Columns to be considered |
|----|---|--------------|--------------------------|
| a. |  <p>Scatter Plot</p> | anorexia.csv | Prewt, Postwt |
| b. |  <p>Post Treatment Effect</p> | anorexia.csv | Postwt |

| | Graph Output | Dataset | Columns to be considered | | | | | | | | | | | | |
|-----------|--|----------|---|-------|--------|---------|--------|------|--------|-----------|-------|------|-------|--------------|-----|
| c. |  <p>Diamond cuts</p> <table><thead><tr><th>Cut</th><th>Frequency</th></tr></thead><tbody><tr><td>Ideal</td><td>~21500</td></tr><tr><td>Premium</td><td>~14000</td></tr><tr><td>Good</td><td>~12500</td></tr><tr><td>Very Good</td><td>~5000</td></tr><tr><td>Fair</td><td>~2000</td></tr></tbody></table> | Cut | Frequency | Ideal | ~21500 | Premium | ~14000 | Good | ~12500 | Very Good | ~5000 | Fair | ~2000 | diamonds.csv | cut |
| Cut | Frequency | | | | | | | | | | | | | | |
| Ideal | ~21500 | | | | | | | | | | | | | | |
| Premium | ~14000 | | | | | | | | | | | | | | |
| Good | ~12500 | | | | | | | | | | | | | | |
| Very Good | ~5000 | | | | | | | | | | | | | | |
| Fair | ~2000 | | | | | | | | | | | | | | |
| d. |  <p>Sepal Length of Iris</p> <p>Sepal Width of Iris</p> <p>Petal Length of Iris</p> <p>Petal Width of Iris</p> | iris.csv | Sepal.Length, Sepal.Width, Petal.Length, Petal.Width | | | | | | | | | | | | |

3. Generate the following graphs with the variables specified using option from **seaborn** library

| | Graph Output | Dataset | Columns to be considered |
|----|---|--------------|--------------------------|
| a. |  <p>Diamond colors</p> | diamonds.csv | color |
| b. |  <p>Boxplot of depth by cut</p> | diamonds.csv | depth |
| c. |  <p>Boxplot of Weight Change by Treatment</p> | anorexia.csv | Diff=Postwt-Prewt |