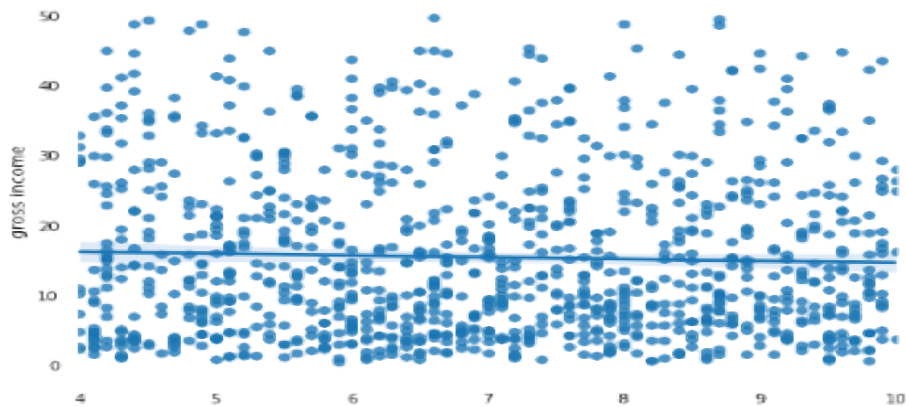


Task 3: Bivariate Analysis

Question 3: Is there a relationship between gross income and customer ratings?

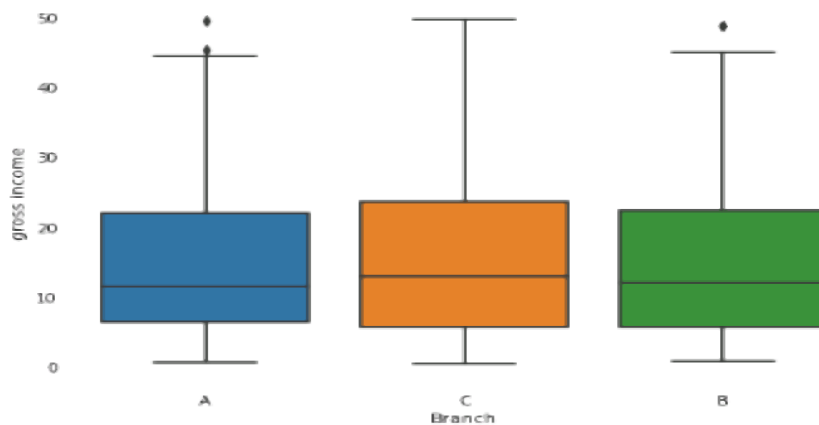
```
[28]: sns.regplot(df['Rating'], df['gross income'])
```

```
[28]: <AxesSubplot: xlabel='Rating', ylabel='gross income'>
```



```
[31]: sns.boxplot(x=df['Branch'], y=df['gross income'])
```

```
[31]: <AxesSubplot: xlabel='Branch', ylabel='gross income'>
```

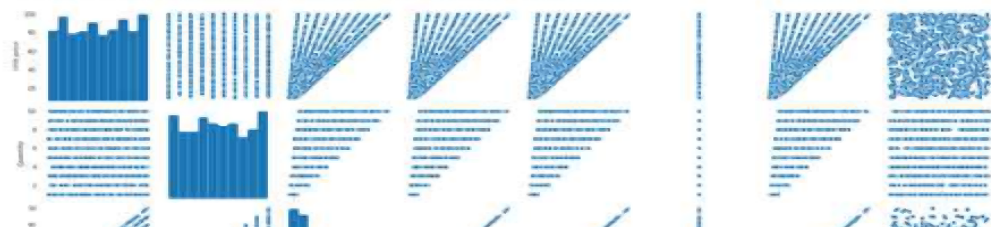


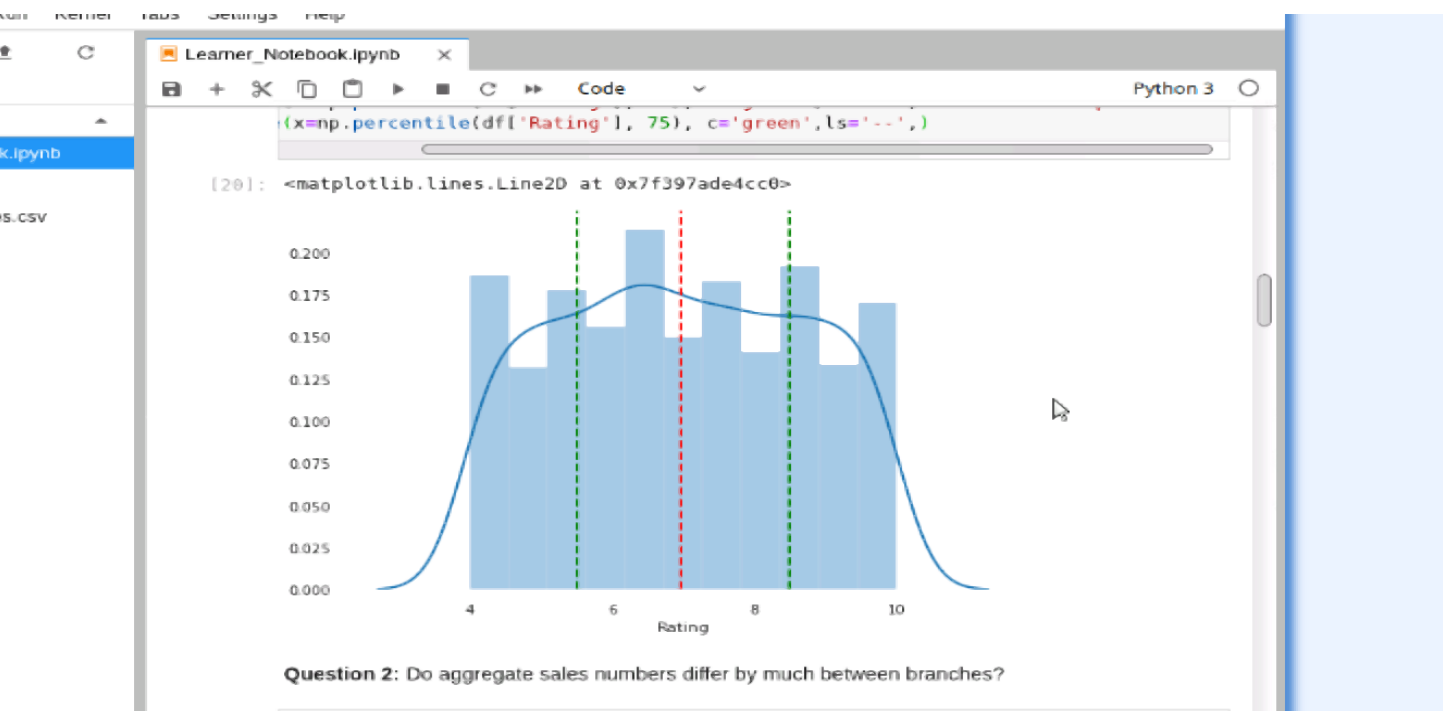
```
[32]: sns.boxplot(x=df['Gender'], y=df['gross income'])
```

```
[32]: <AxesSubplot: xlabel='Gender', ylabel='gross income'>
```

```
[38]: sns.pairplot(df)
```

```
[38]: <seaborn.axisgrid.PairGrid at 0x7f397a158358>
```





[56]:

Task 5: Correlation Analysis

```
[58]: round(np.corrcoef(df['gross income'],df['Rating'])[1][0],2)
```

[58]: -0.04

```
[60]: np.round(df.corr(),2)
```

[60]:

	Unit price	Quantity	Tax 5%	Total	cogs	gross margin percentage	gross income	Rating
Unit price	1.00	0.01	0.63	0.63	0.63	-0.0	0.63	-0.01
Quantity	0.01	1.00	0.70	0.70	0.70	-0.0	0.70	-0.02
Tax 5%	0.63	0.70	1.00	1.00	1.00	0.0	1.00	-0.04
Total	0.63	0.70	1.00	1.00	1.00	0.0	1.00	-0.04
cogs	0.63	0.70	1.00	1.00	1.00	0.0	1.00	-0.04
gross margin percentage	-0.00	-0.00	0.00	0.00	0.00	1.0	0.00	0.00
gross income	0.63	0.70	1.00	1.00	1.00	0.0	1.00	-0.04

