

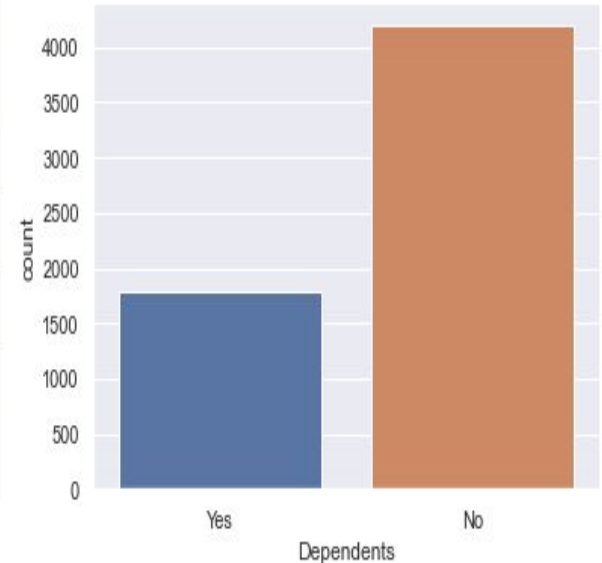
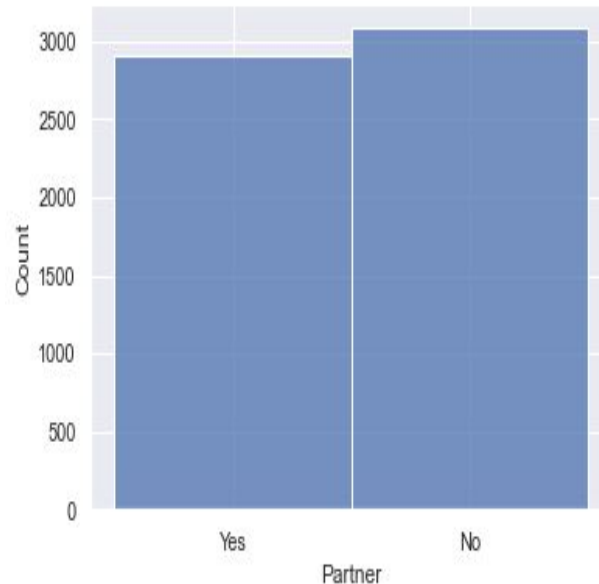
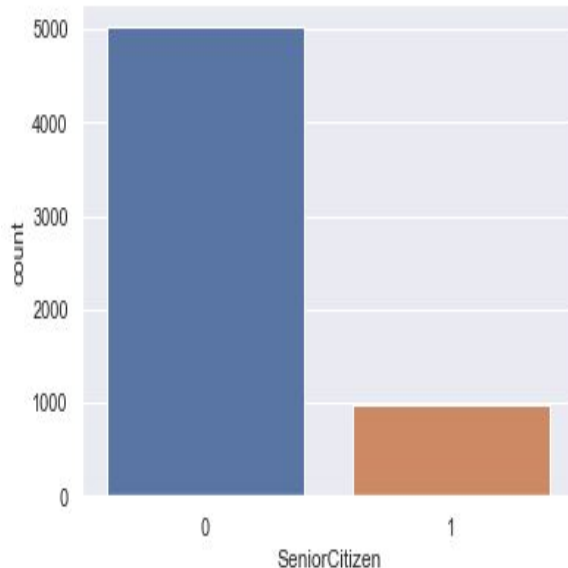
# Telecom Users Exploratory Data Analysis and Visualization

## 20 Data Analysis and Visualization

# 1 SeniorCitizen visualization, display that non Senior Citizens are 4 times higher than Senior Citizens

# 2 Partner visualization, display that users with Partner or without has not a significant difference

# 3 Dependents visualization, display that Independents are over 2 times higher than Dependents



# 4 Total Male Subscribers which are Senior Citizens with the following: 'Partner', 'Dependents', 'PhoneService', 'MultipleLines', 'InternetService', 'OnlineSecurity', 'OnlineBackup', 'DeviceProtection', 'TechSupport', 'StreamingTV', 'StreamingMovies', 'Contract', 'TotalCharges', 'Churn'

Int64Index: 484 entries, 9 to 6048

Data columns (total 14 columns):

#	Column	Non-Null Count	Dtype
0	Partner	484 non-null	object
---	-----	-----	-----

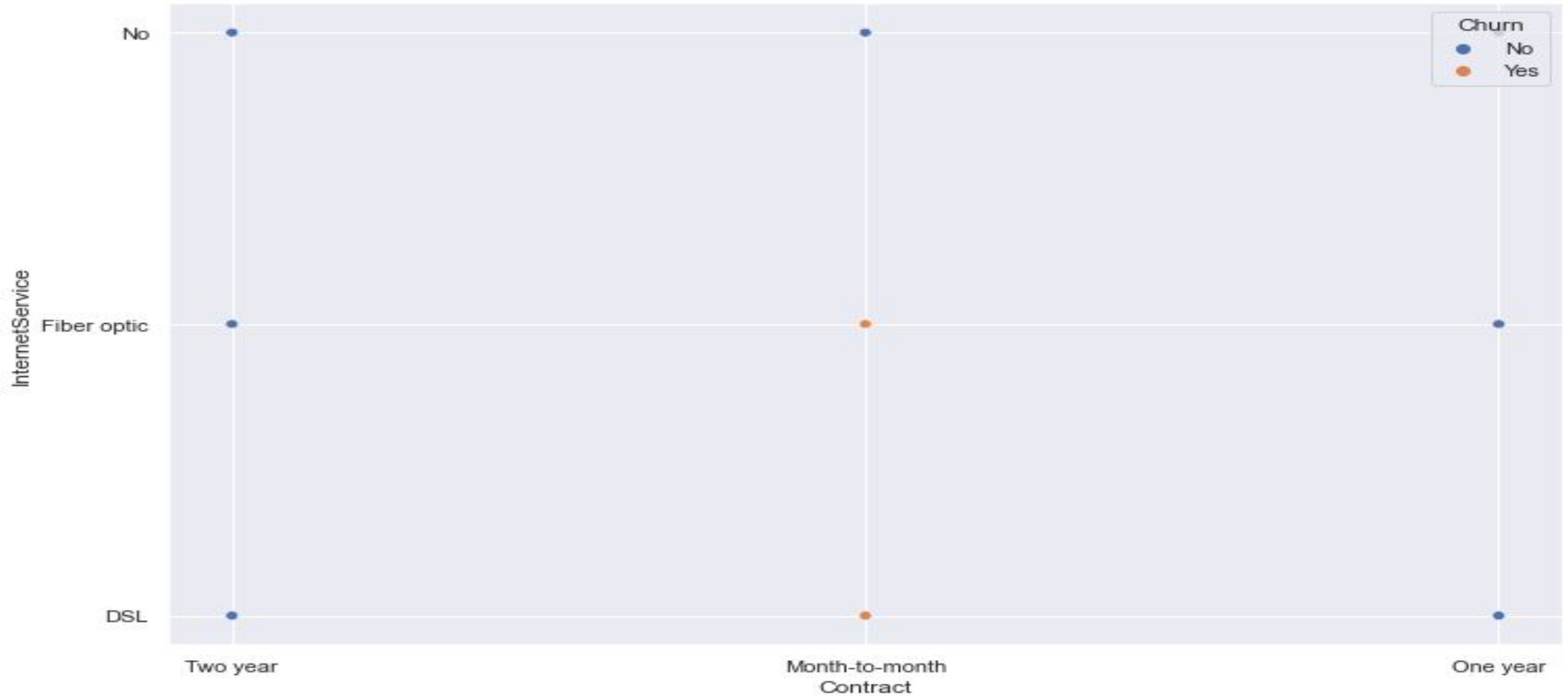
# 5 Total Female Subscribers which are Senior Citizens with the following: 'Partner', 'Dependents', 'PhoneService', 'MultipleLines', 'InternetService', 'OnlineSecurity', 'OnlineBackup', 'DeviceProtection', 'TechSupport', 'StreamingTV', 'StreamingMovies', 'Contract', 'TotalCharges', 'Churn'

Int64Index: 482 entries, 2 to 6037

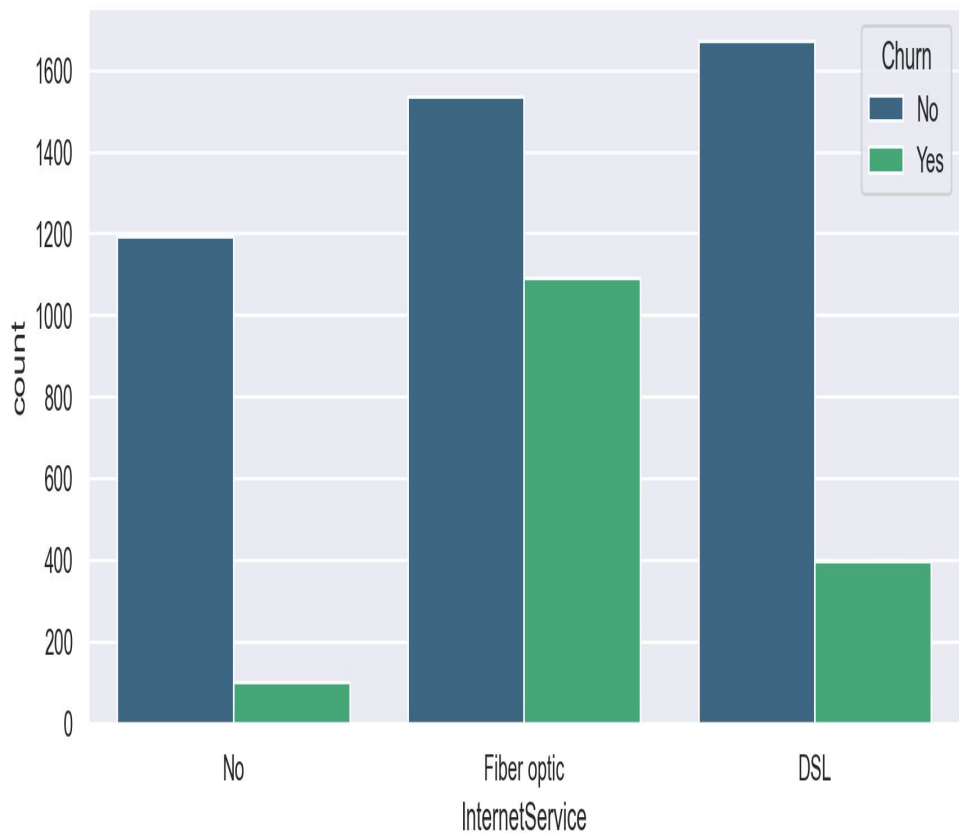
Data columns (total 14 columns):

#	Column	Non-Null Count	Dtype
0	Partner	482 non-null	object
---	-----	-----	-----

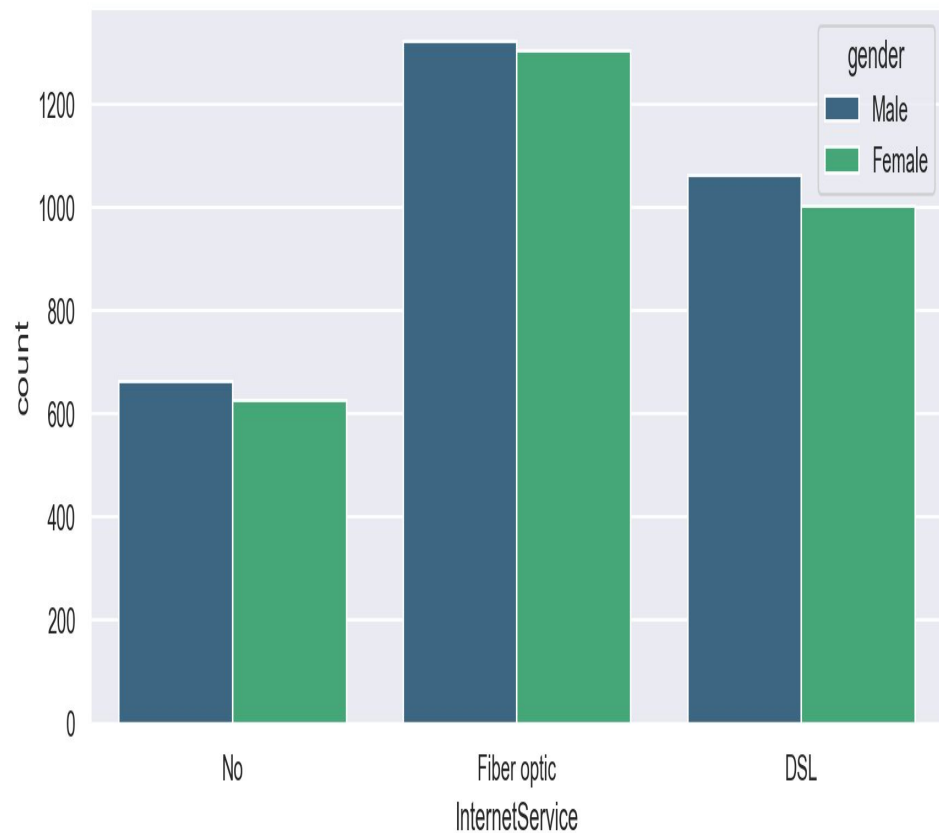
# 6 Scatterplot with InternetService and Contract divided by Churn, Churn users are shown on the chart clearly as Month to month contract only.



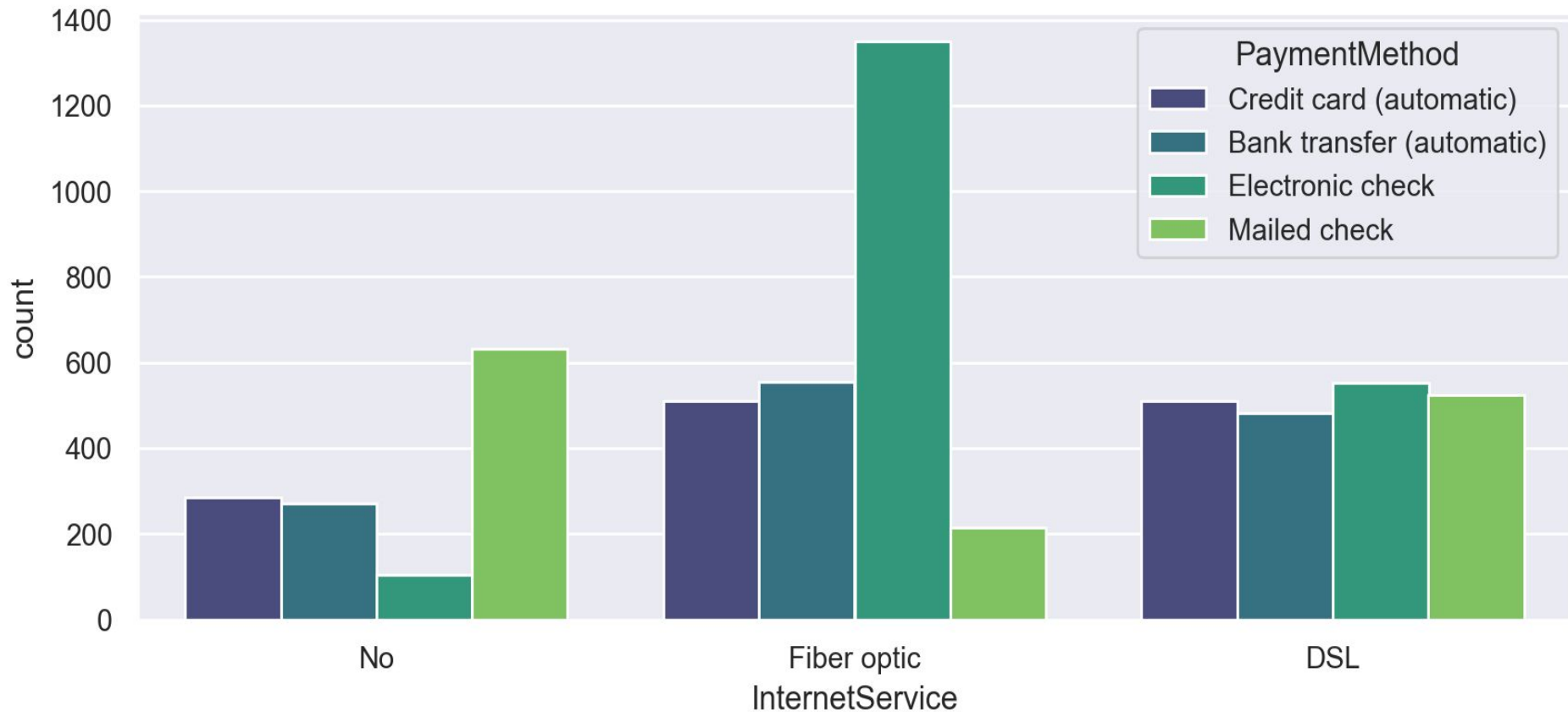
# 7 Countplot on InternetService divided by Churn



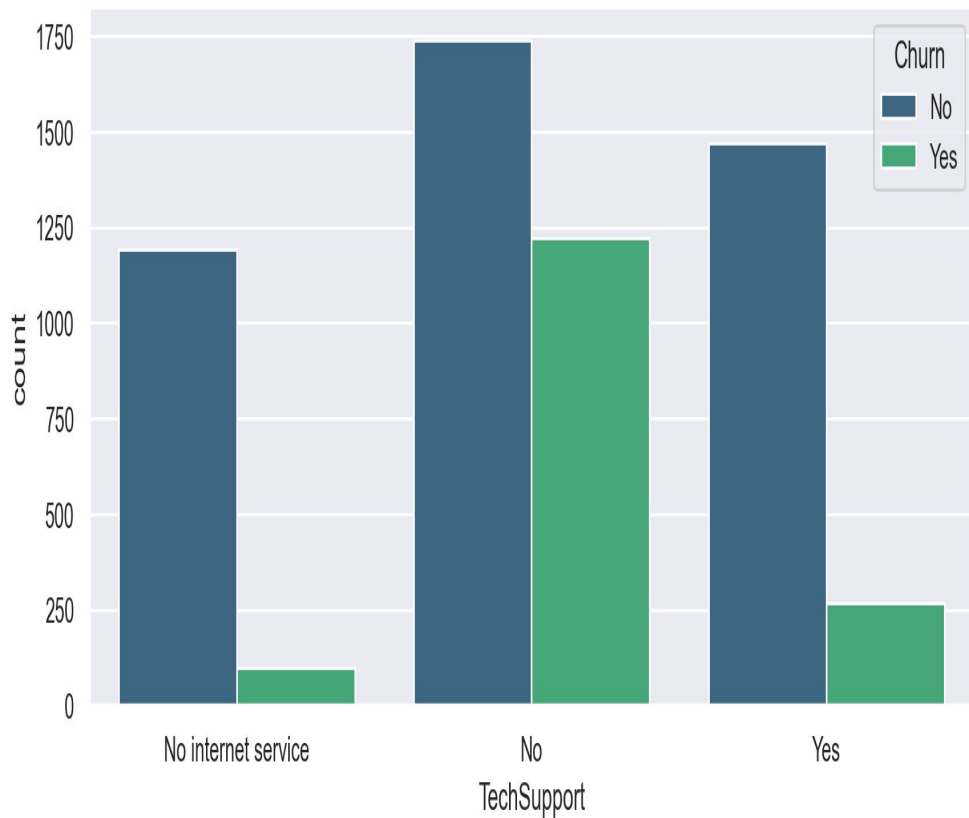
# 9 Countplot on InternetService divided by gender



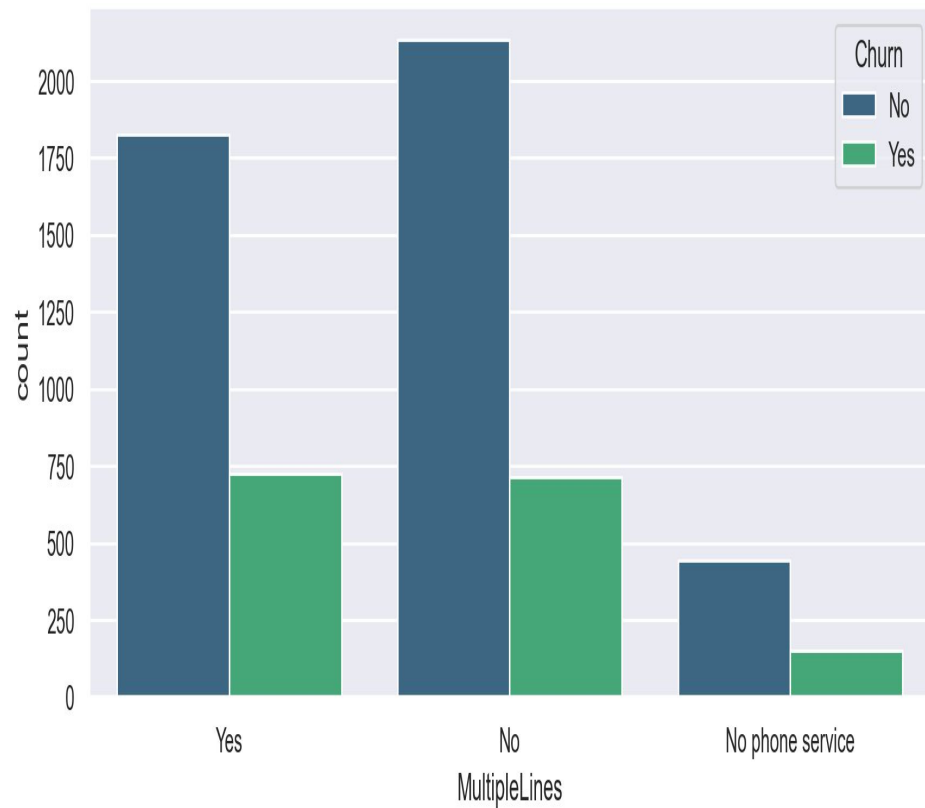
# 8 Countplot on InternetService divided by PaymentMethod, visualization shows that Electronic check has highest position in Fiber optic and lowest position in No InternetService.



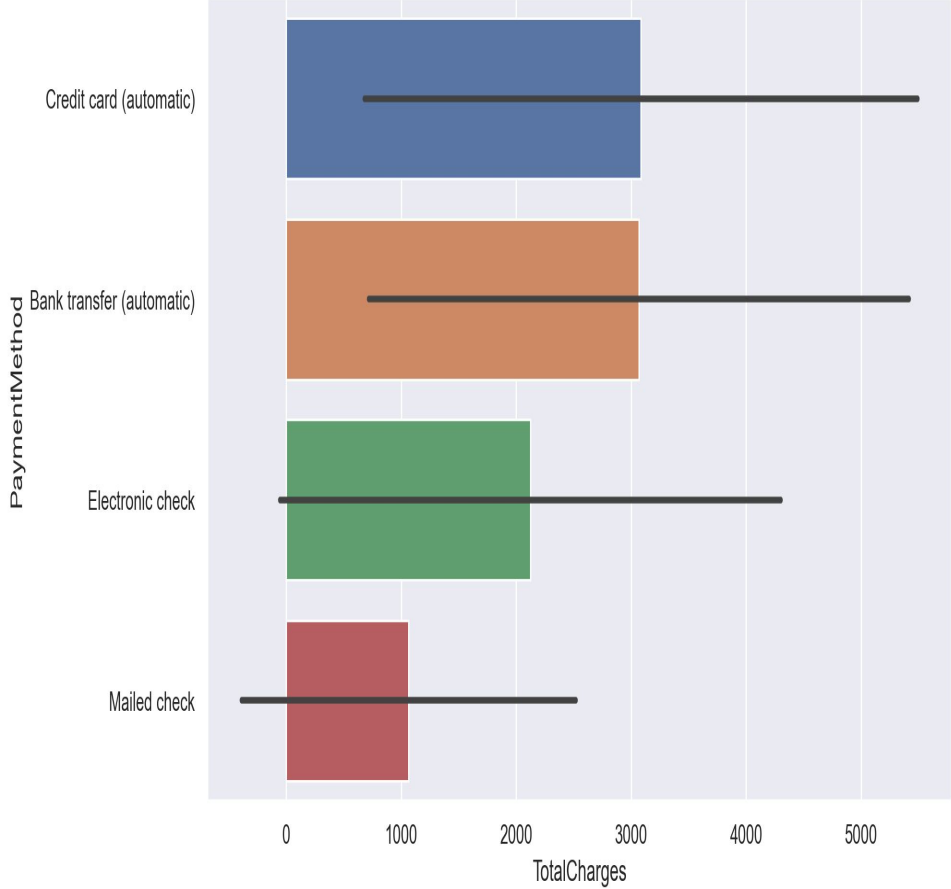
# 10 Countplot on TechSupport divided by Churn



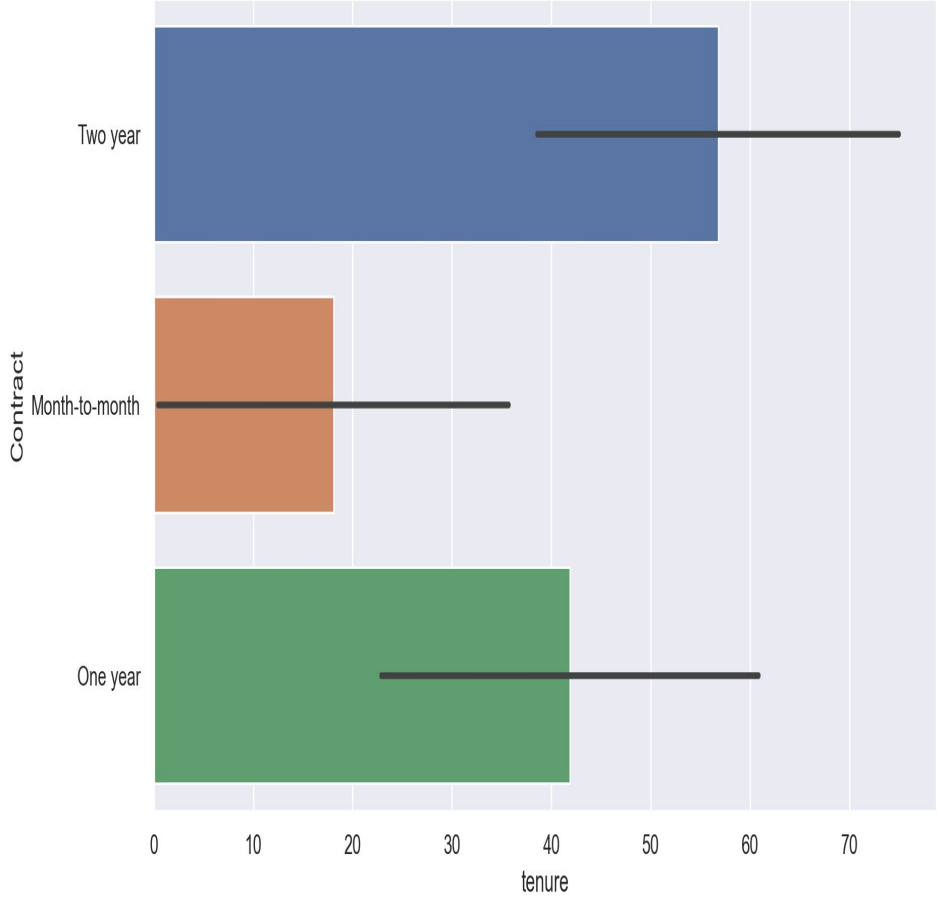
# 11 Countplot on MultipleLines divided by Churn



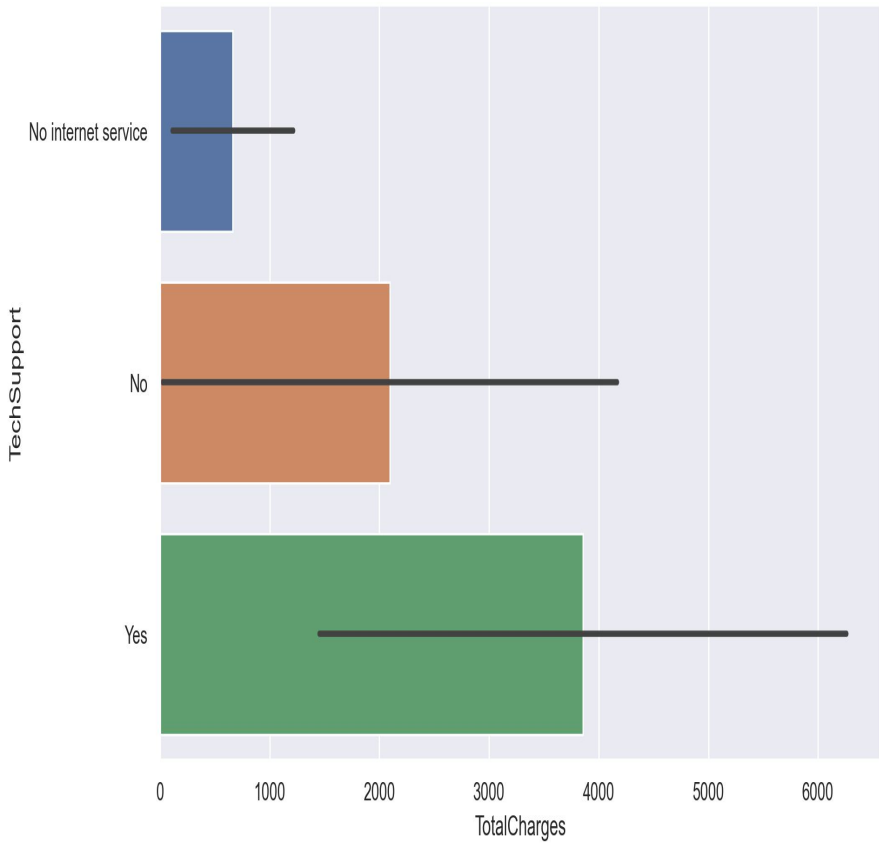
# 12 Data visualization between TotalCharges and PaymentMethod



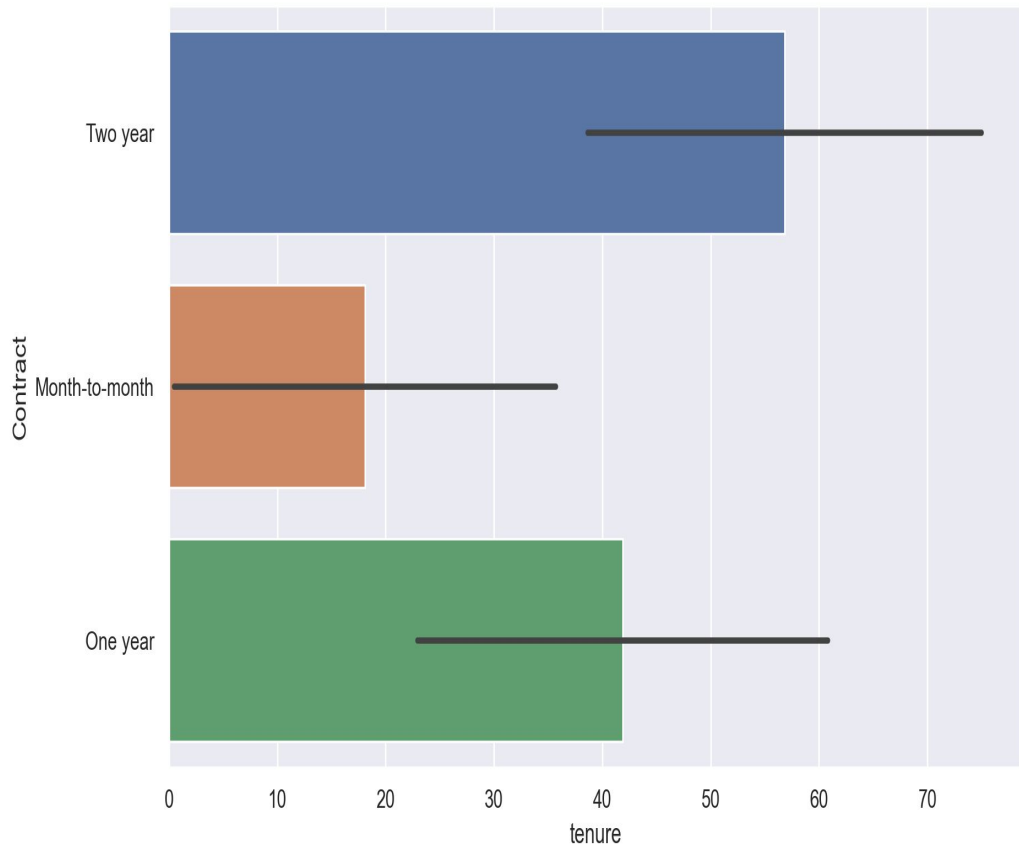
# 13 Data visualization between tenure and Contract



# 14 Data visualization between TotalCharges and TechSupport

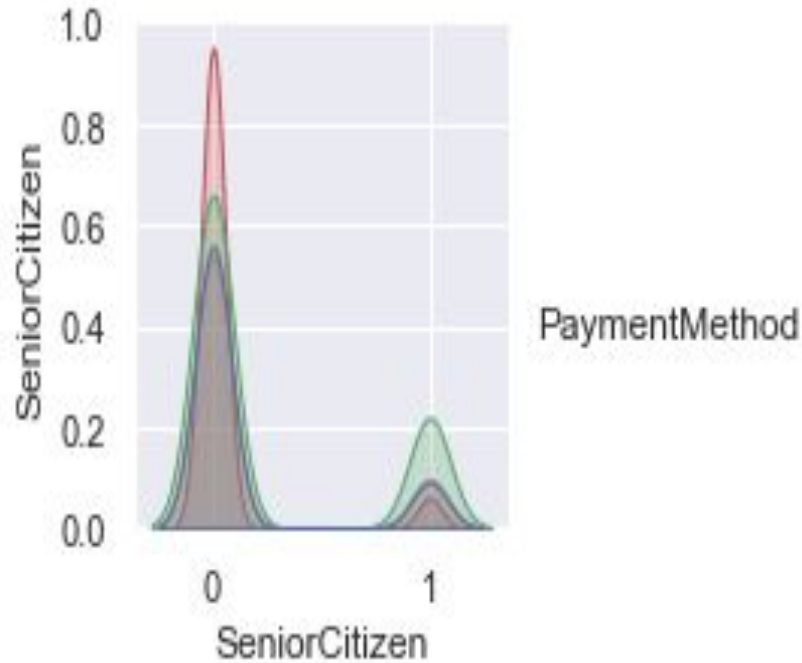


# 15 Data visualization between tenure and Contract

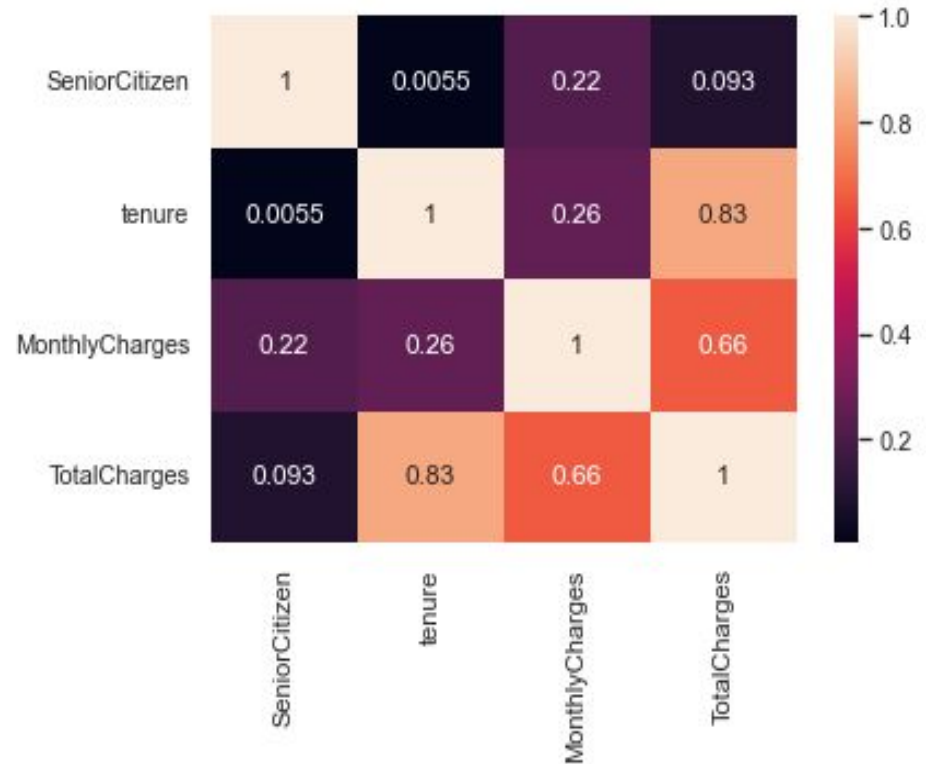




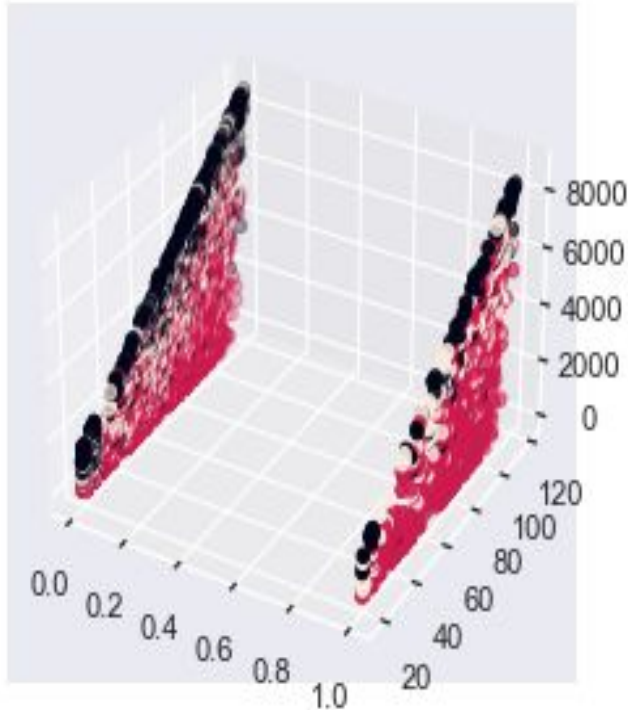
# 16 Pairplot which visualise 'SeniorCitizen' and 'PaymentMethod'



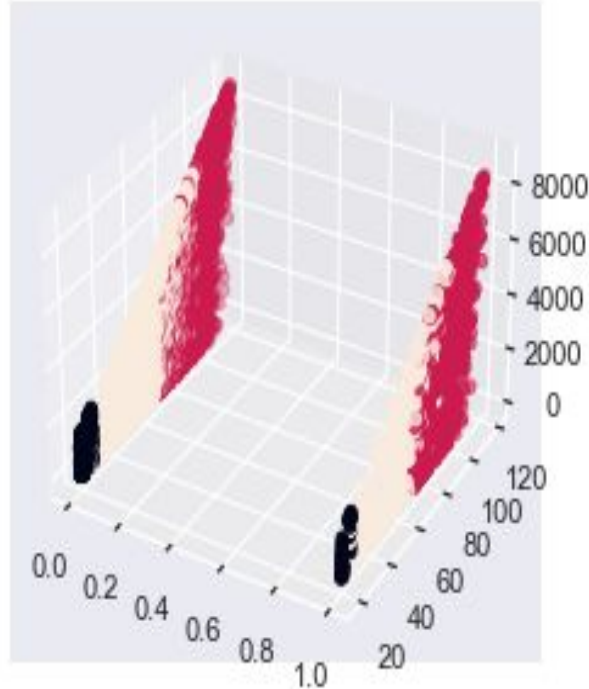
# 17 Exploratory Data Analysis and Visualizatiz with heatmap wich show correlation between tenure and TotalCharge



# 18 Exploratory Data Analysis and Visualizatz with 3D wich show how Contract is related with SeniorCitizen, MonthlyCharges and TotalCharges



# 19 Exploratory Data Analysis and Visualizatz with 3D wich show how InternetService is related with SeniorCitizen, MonthlyCharges and TotalCharges



# 20 Exploratory Data Analysis and Visualizatz with 3D wich show how TechSupport is related with SeniorCitizen, MonthlyCharges and TotalCharges

