

# TELECOM CHURN CASE STUDY

DS C 46 Batch

BY

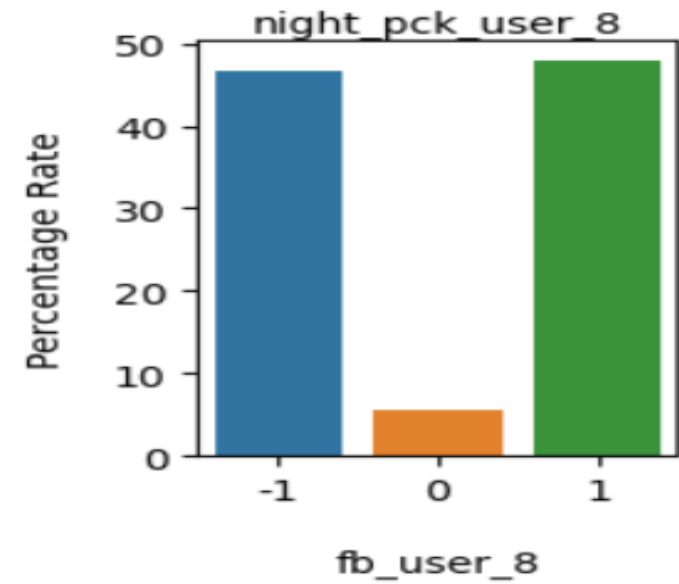
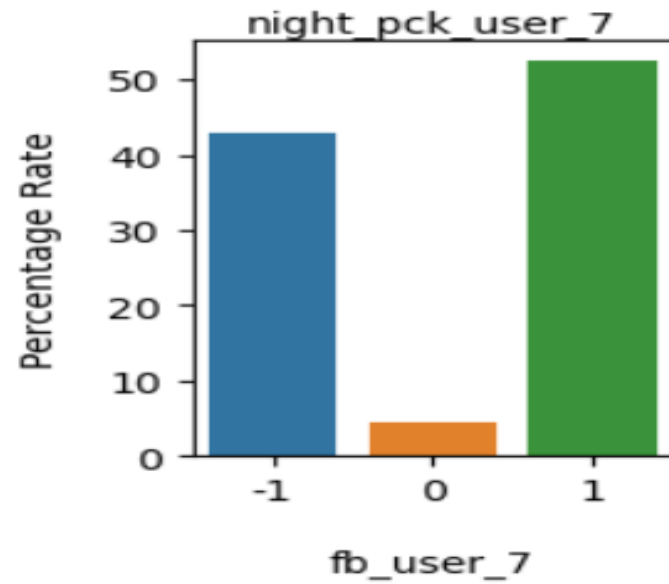
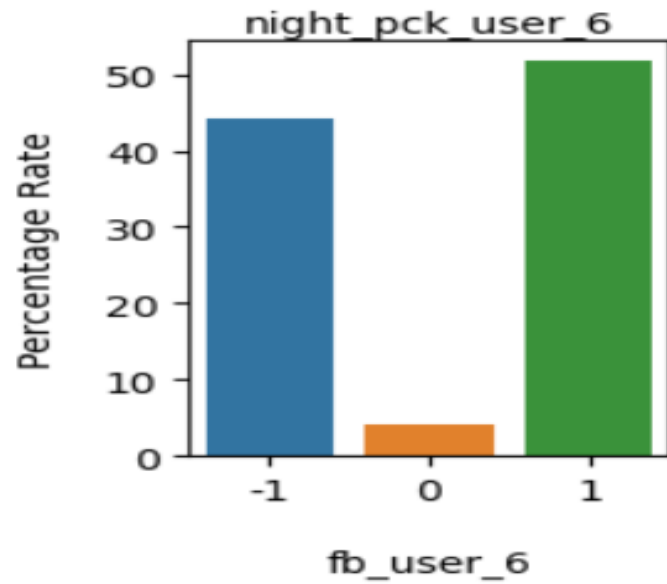
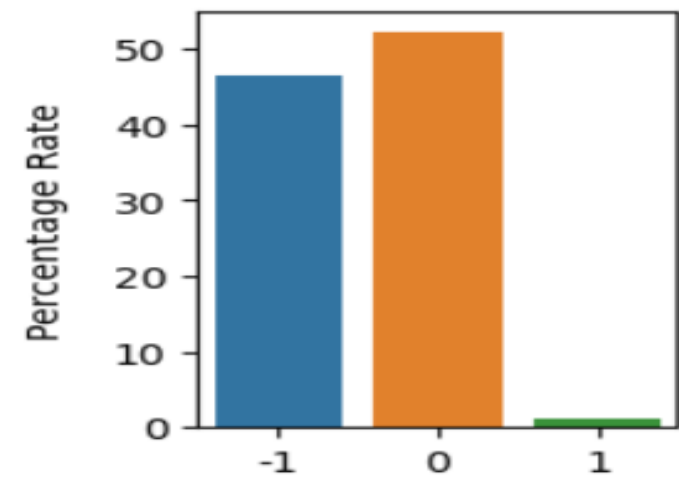
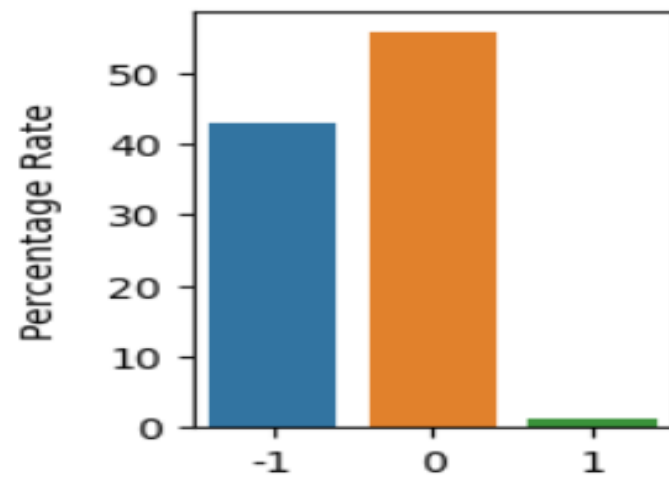
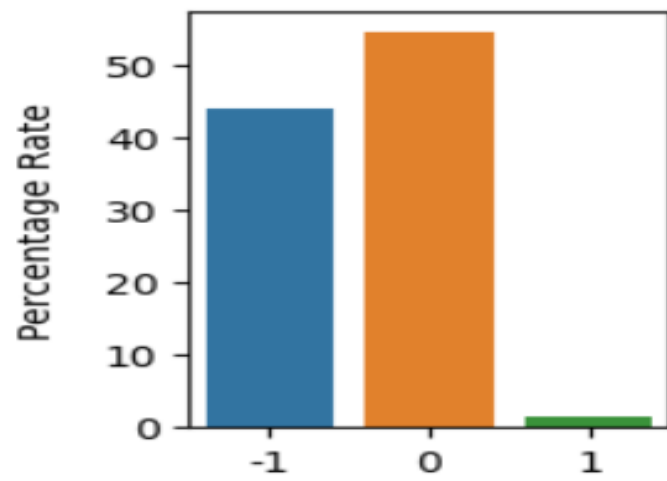
SACHIN JANGID

VISHWRAJ BANGERA

VIKRAM VIPLOW

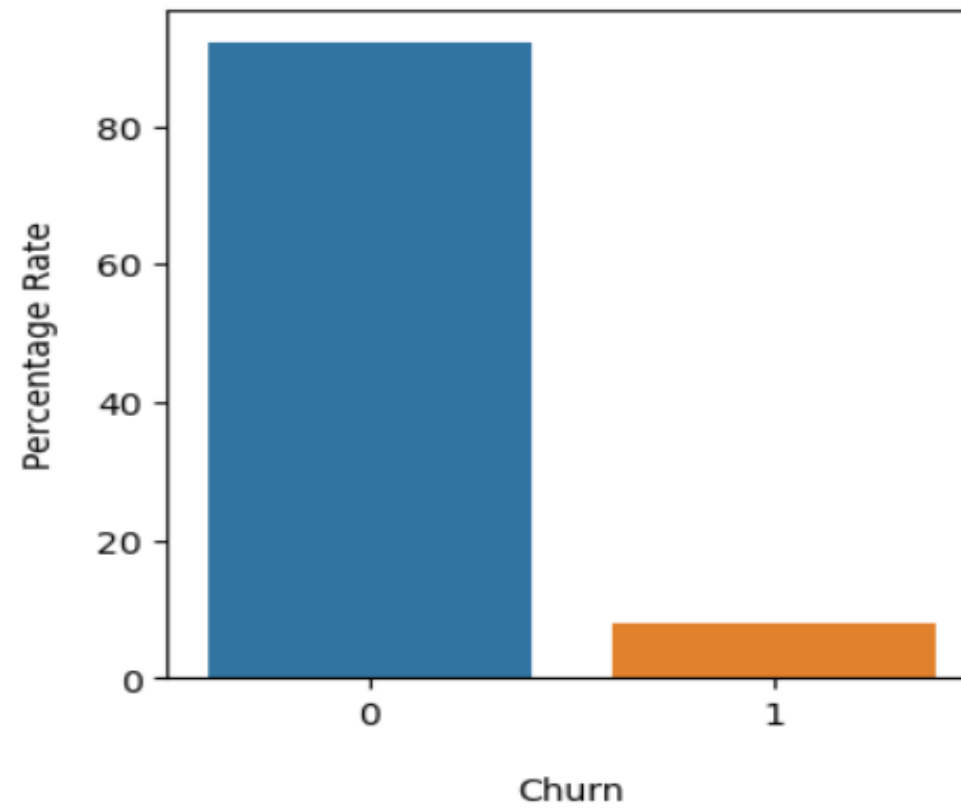
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we see that at 8th month null % was high means churn chance was high



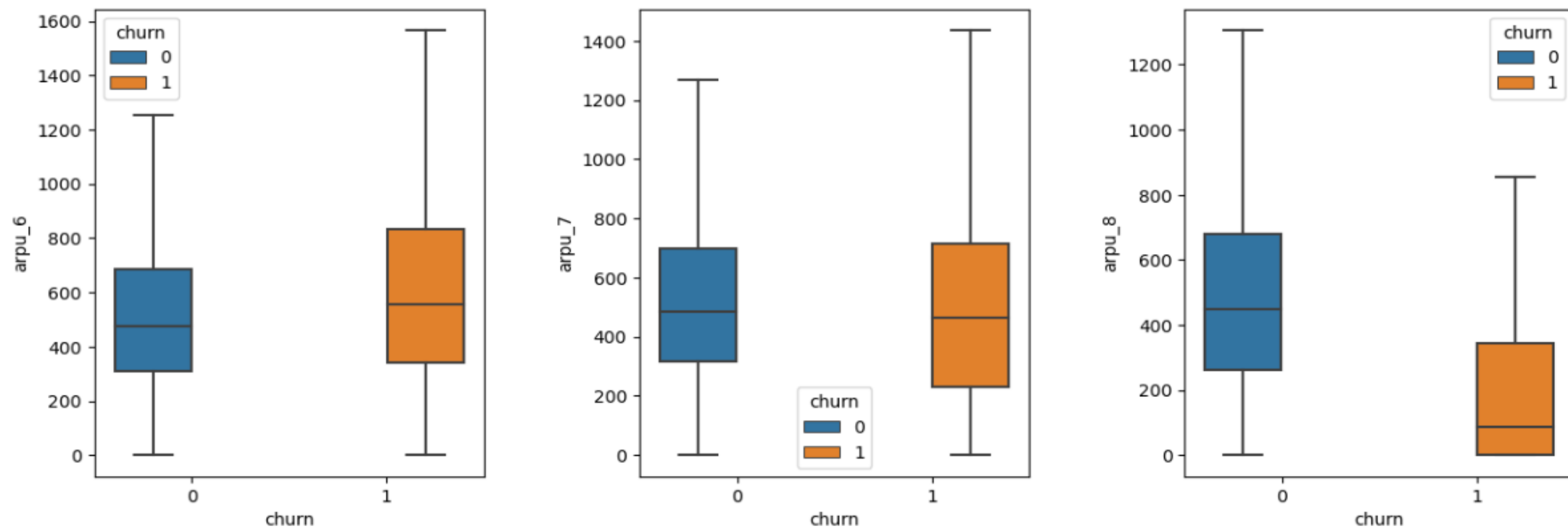
Ordered categorical variables vs Percentage Rate Bar Plot

Positive examples = 2364  
Negative examples = 27460  
Proportion of positive to negative examples = 8.61%



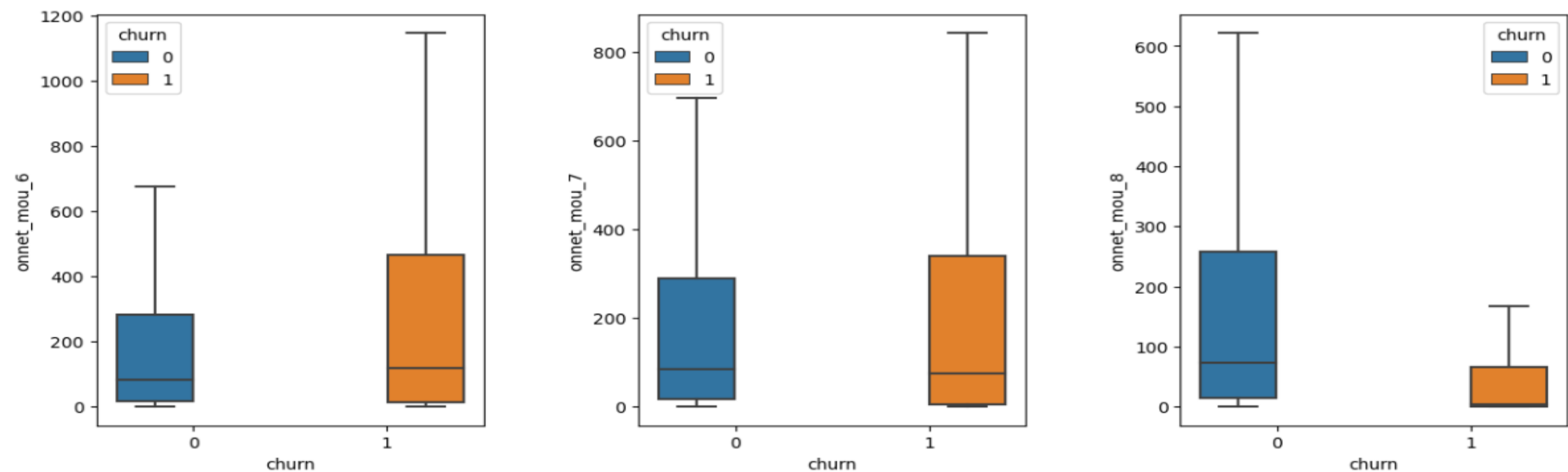
Percentage Rate VS Churn Bar Plot

Data Visualization of churn vs arpu



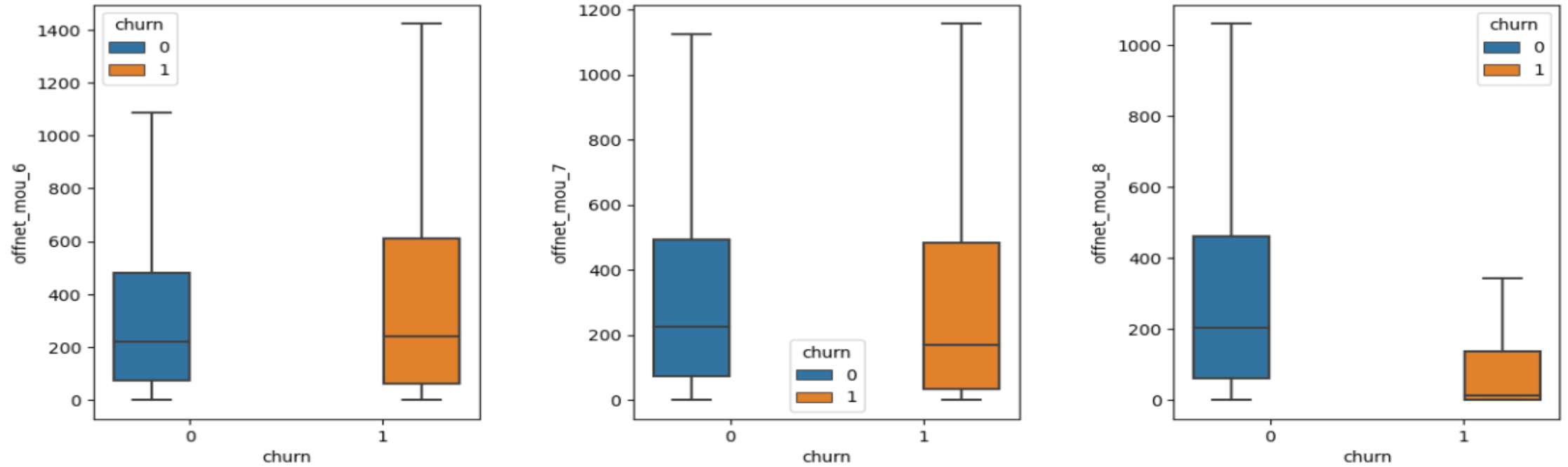
Box Plot Churn vs Average revenue per user

Data Visualization of churn vs onnet\_mou



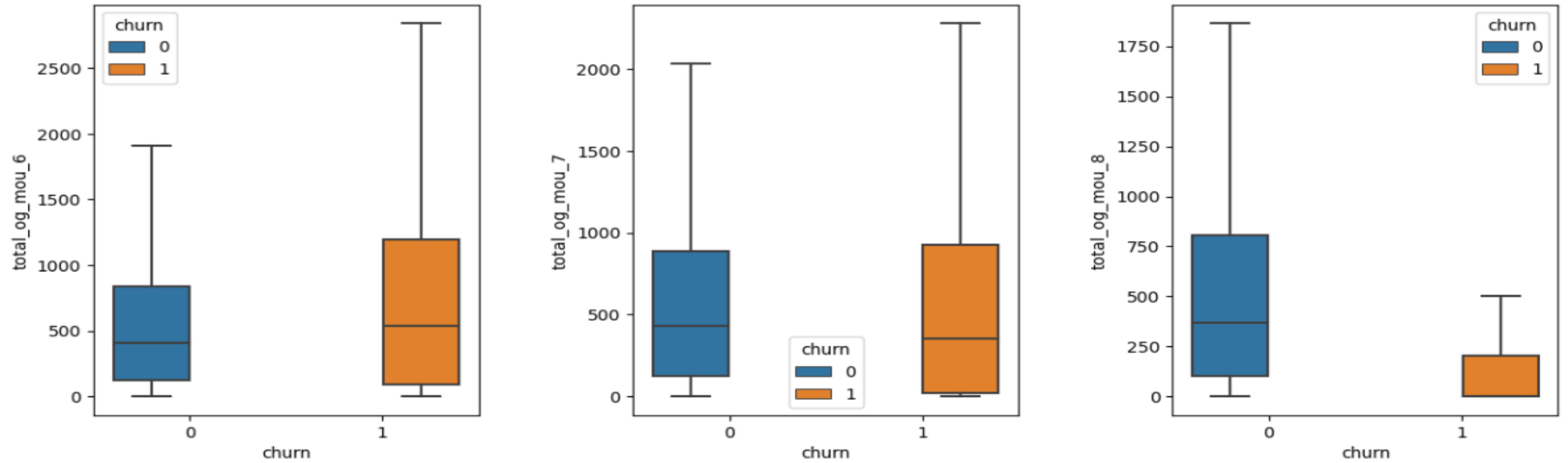
Box Plot Churn vs All kind of calls within the same operator network

Data Visualization of churn vs offnet\_mou



Box Plot Churn vs All kind of calls outside the operator T network

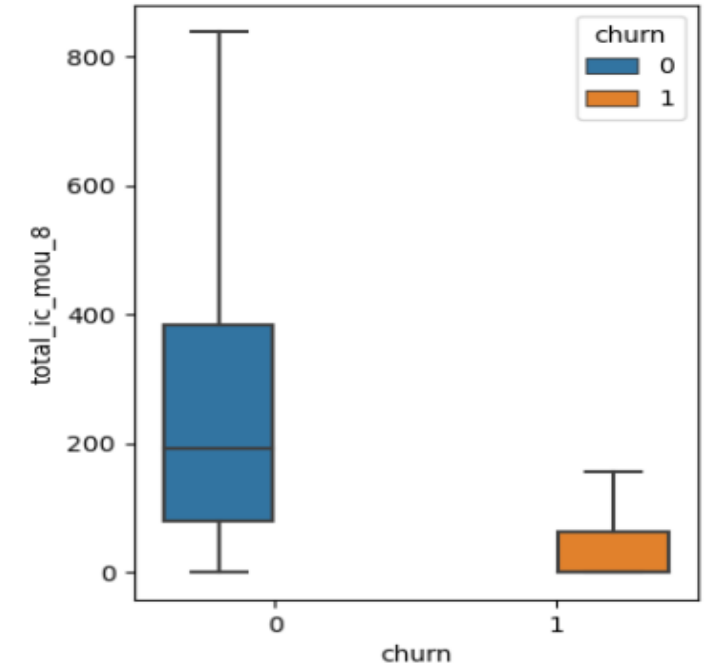
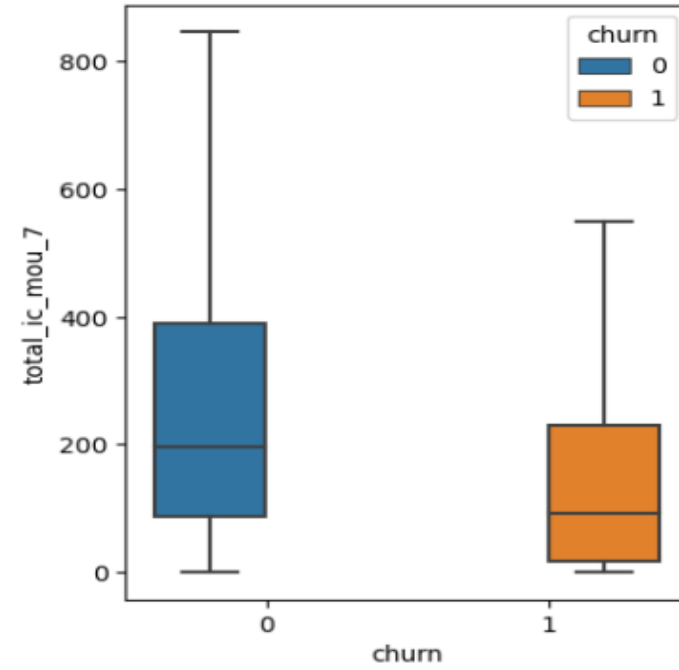
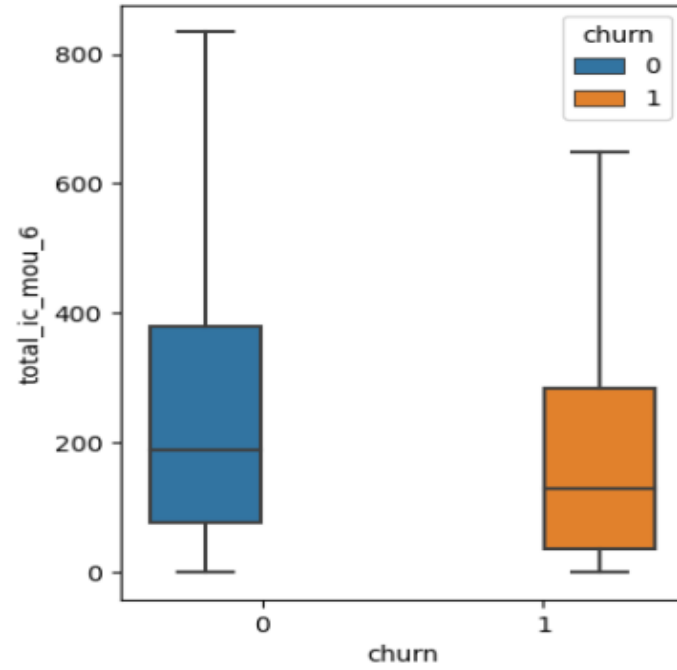
Data Visualization of churn vs total\_og\_mou



Box Plot Churn Vs Total Outgoing Calls (by minutes of usage)

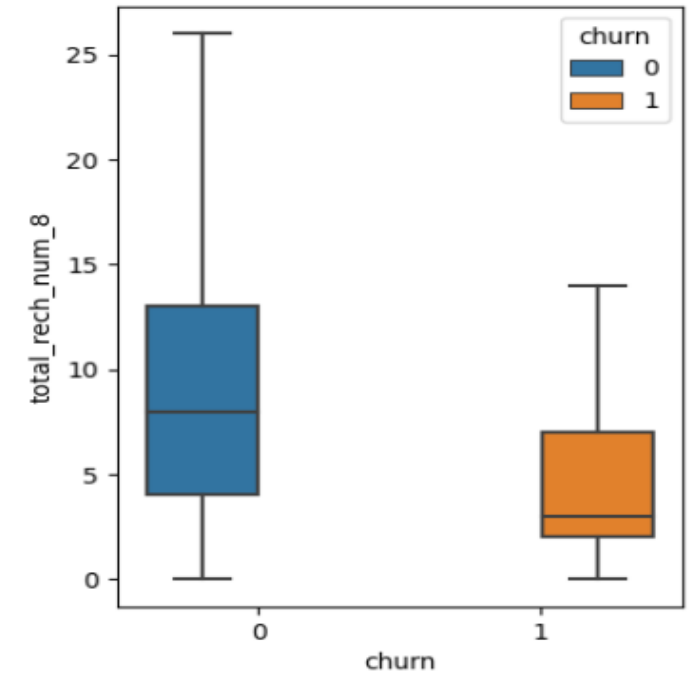
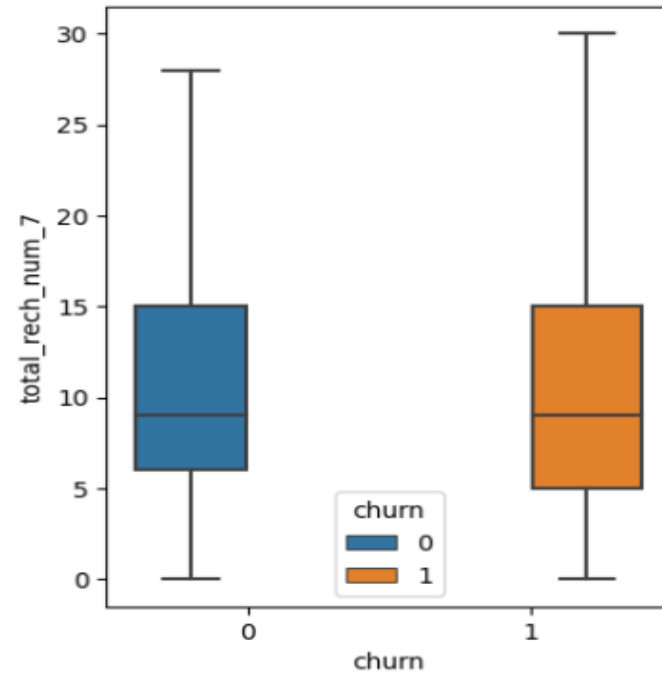
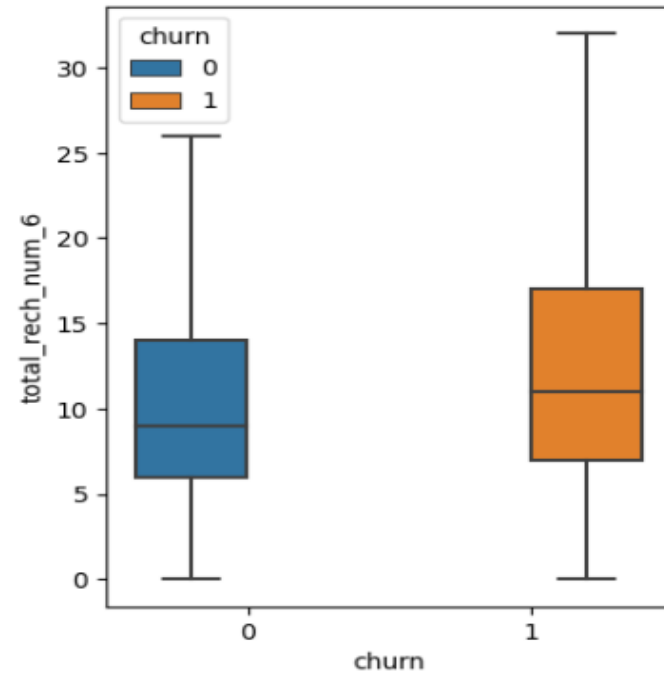


Data Visualization of churn vs total\_ic\_mou



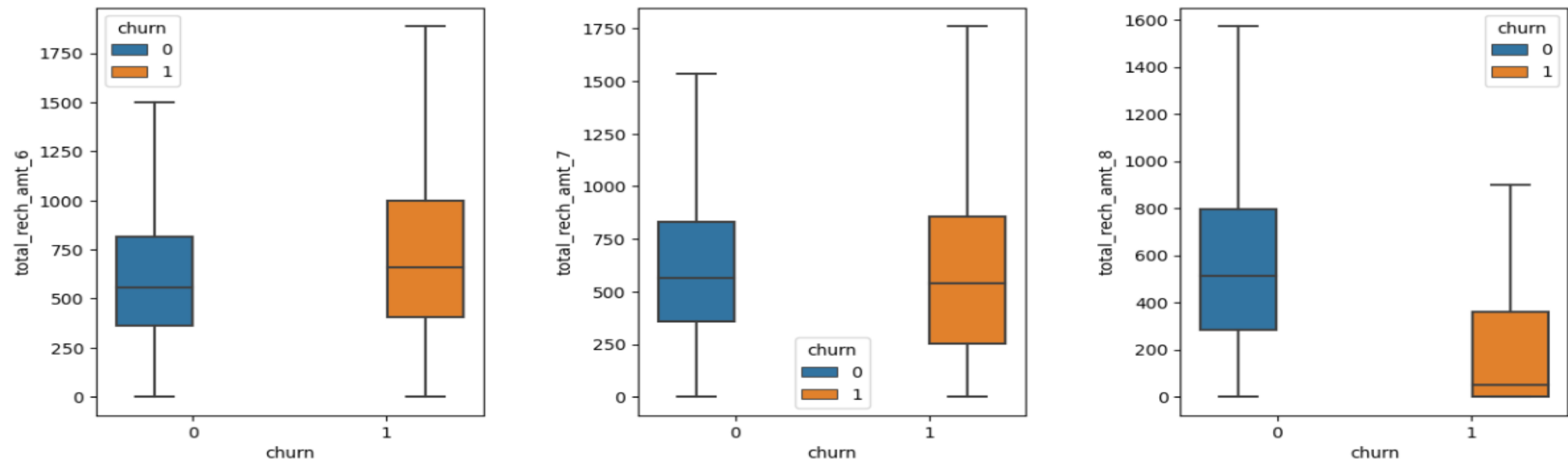
Box Plot Churn Vs Total Incoming Calls (by minutes of usage)

Data Visualization of churn vs total\_rech\_num



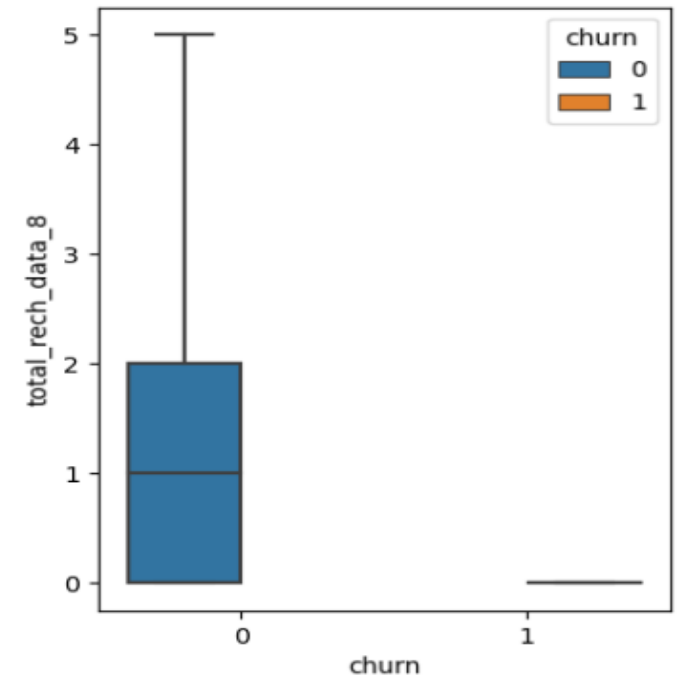
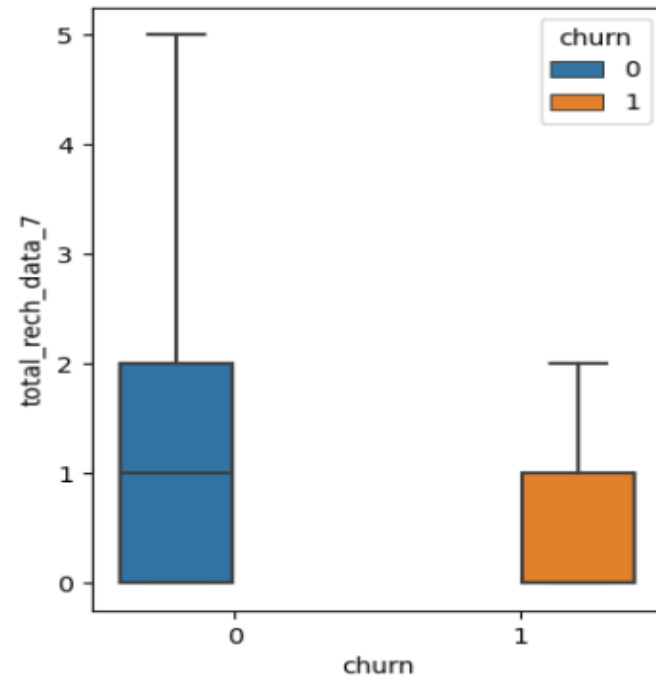
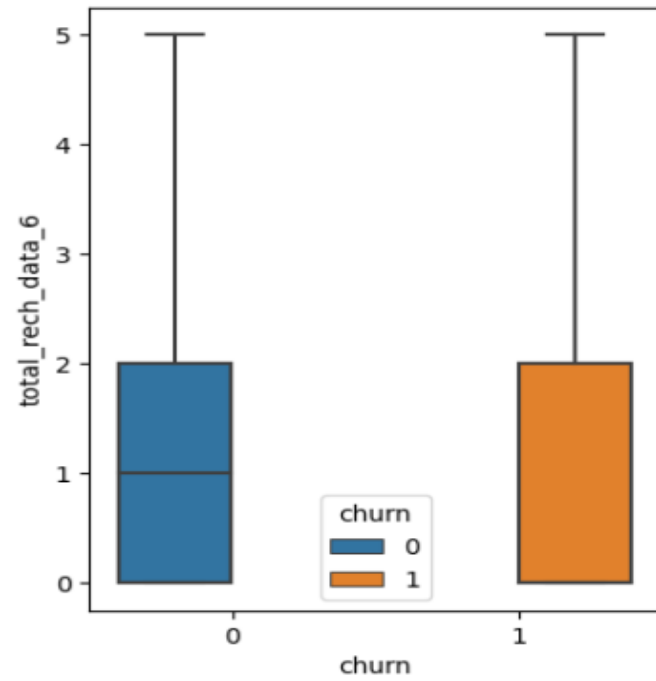
Box Plot Churn Vs Total Number of Recharge

Data Visualization of churn vs total\_rech\_amt



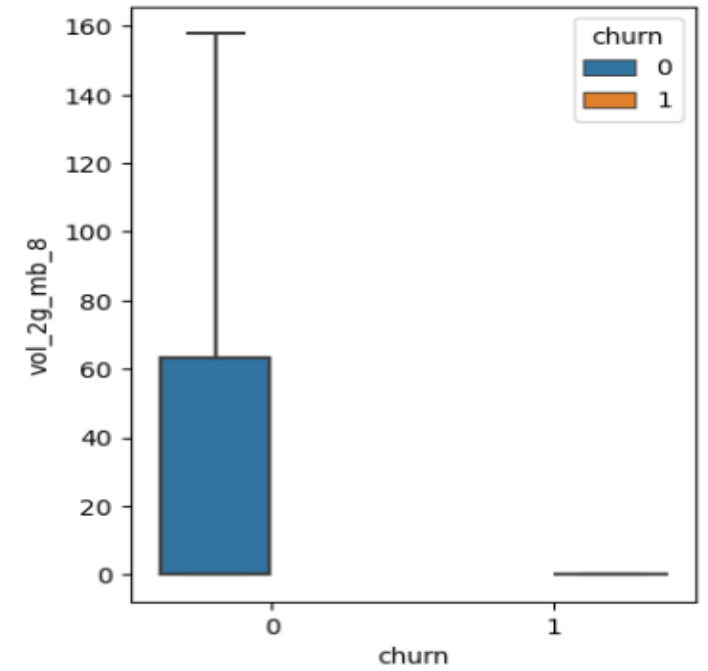
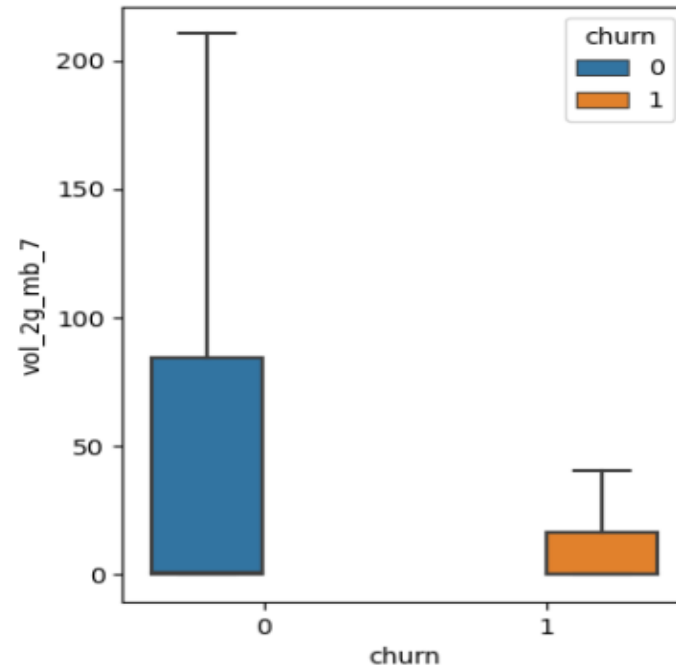
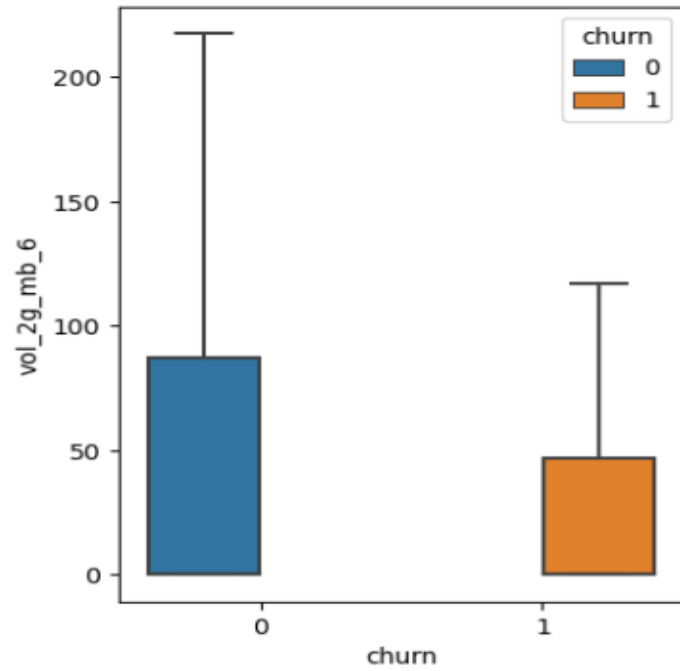
Box Plot Churn Vs Total Recharge Amount

Data Visualization of churn vs total\_rech\_data



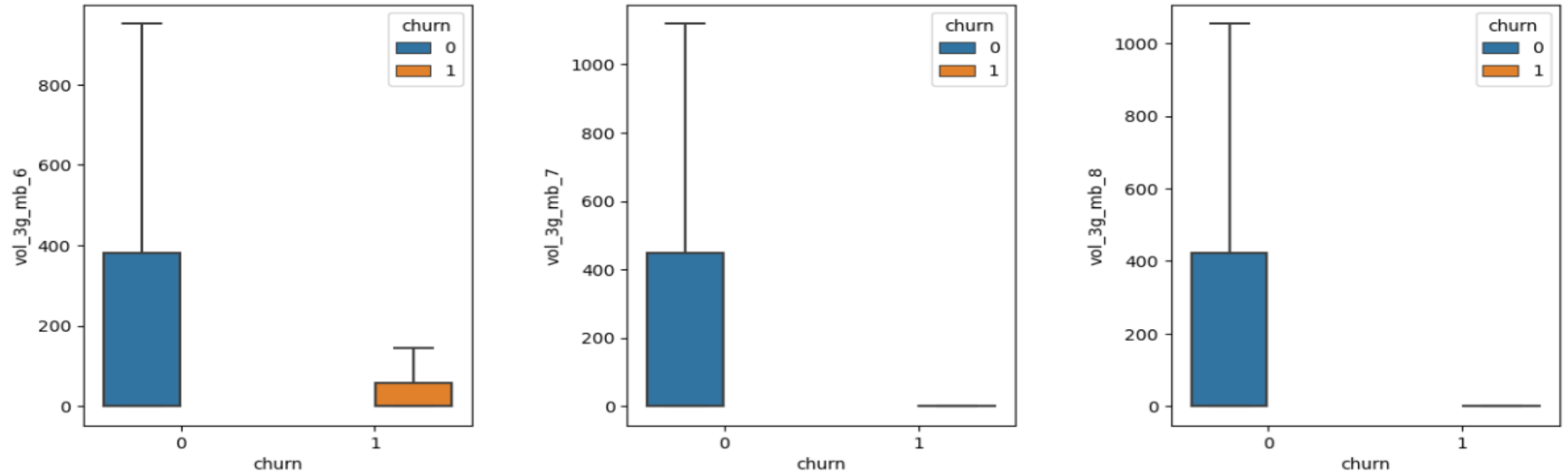
Box Plot Churn Vs Total Internet recharge

Data Visualization of churn vs vol\_2g\_mb



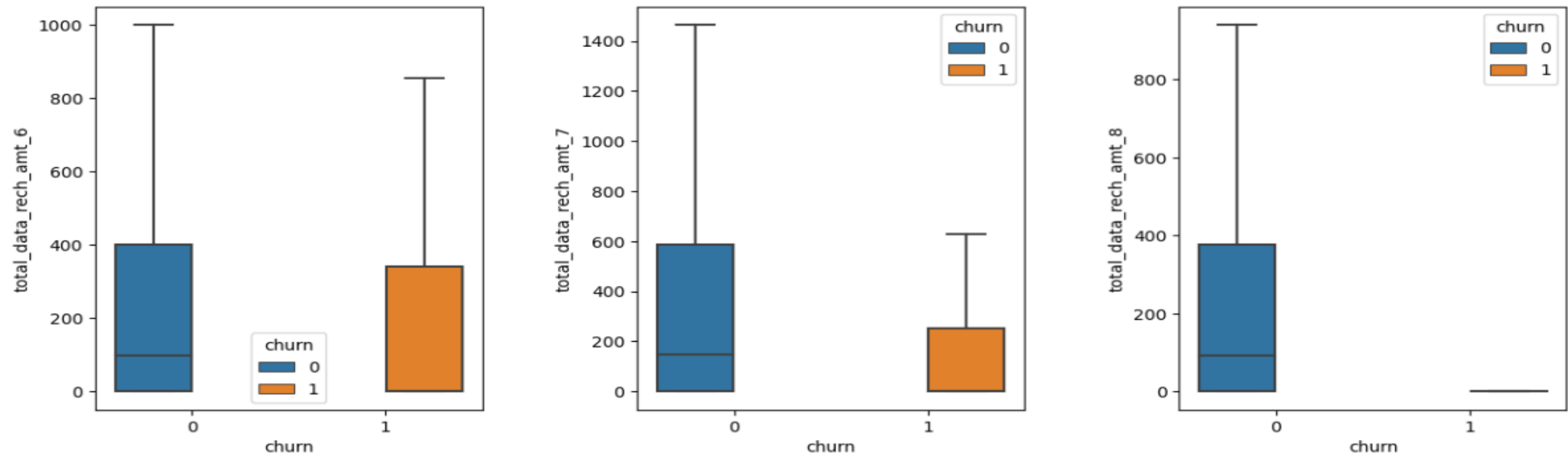
Box Plot Churn Vs Total 2G internet usage in MB

Data Visualization of churn vs vol\_3g\_mb

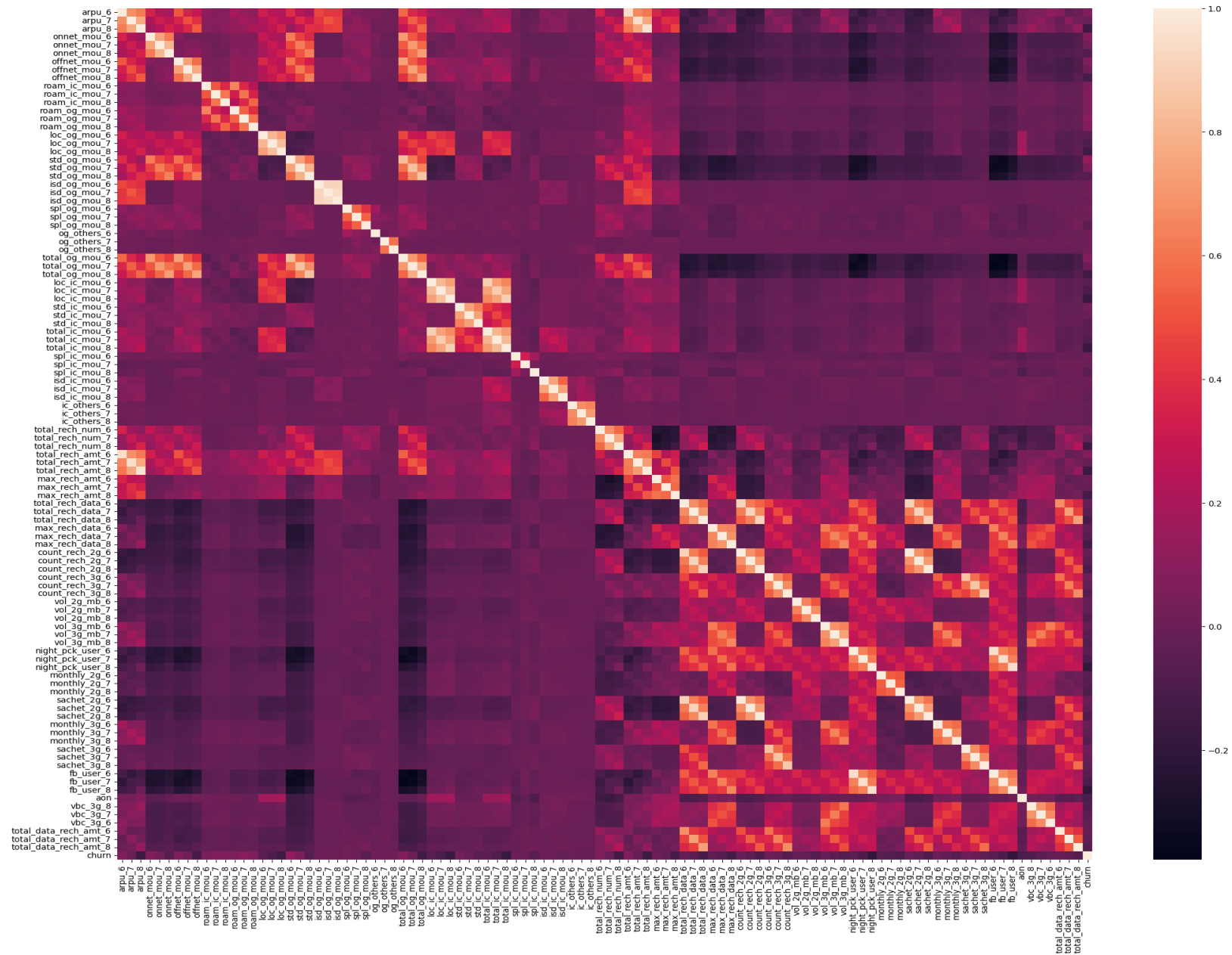


Box Plot Churn Vs Total 3G internet usage in MB

Data Visualization of churn vs total\_data\_rech\_amt

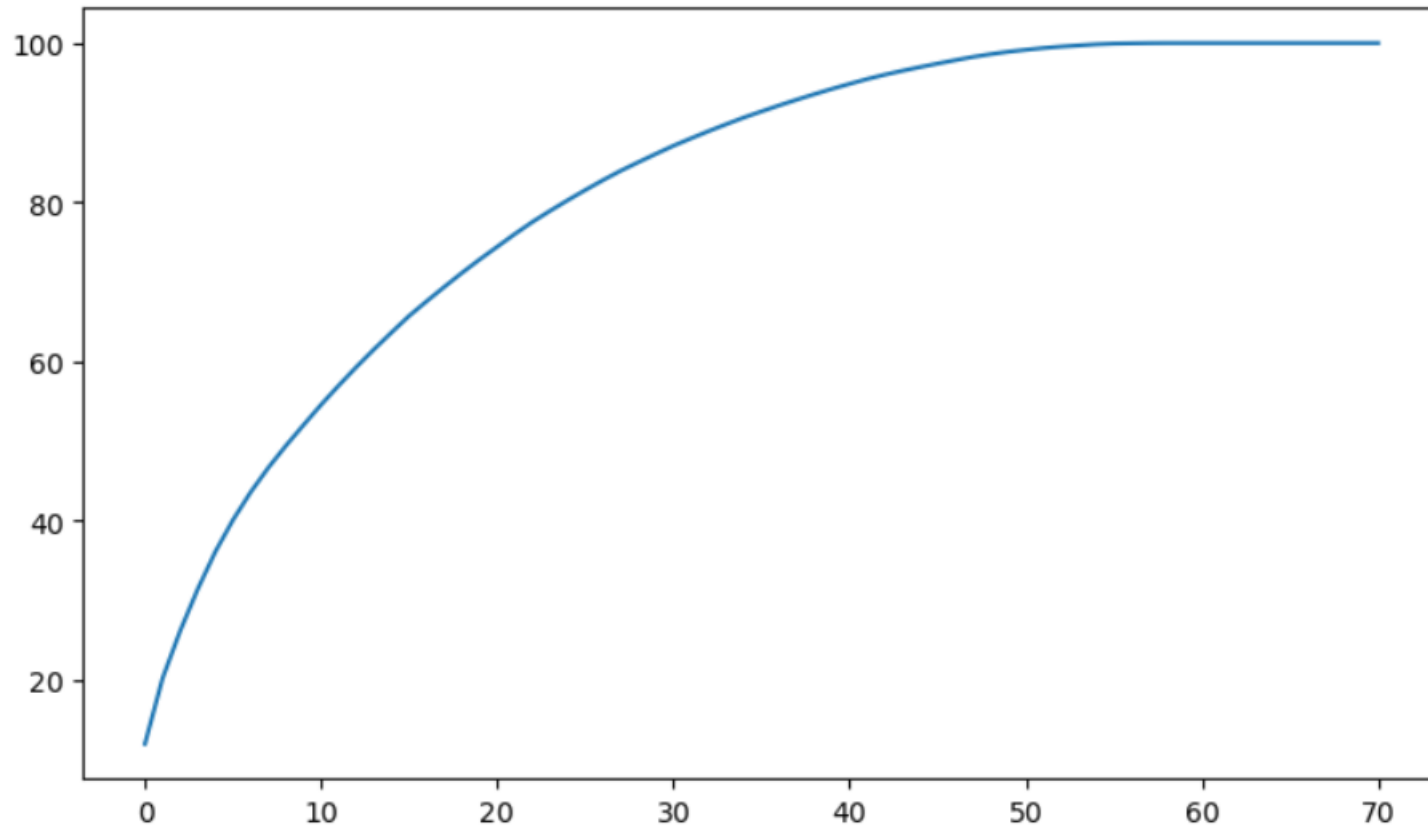


Box Plot Churn Vs Total Internet Recharge Amount

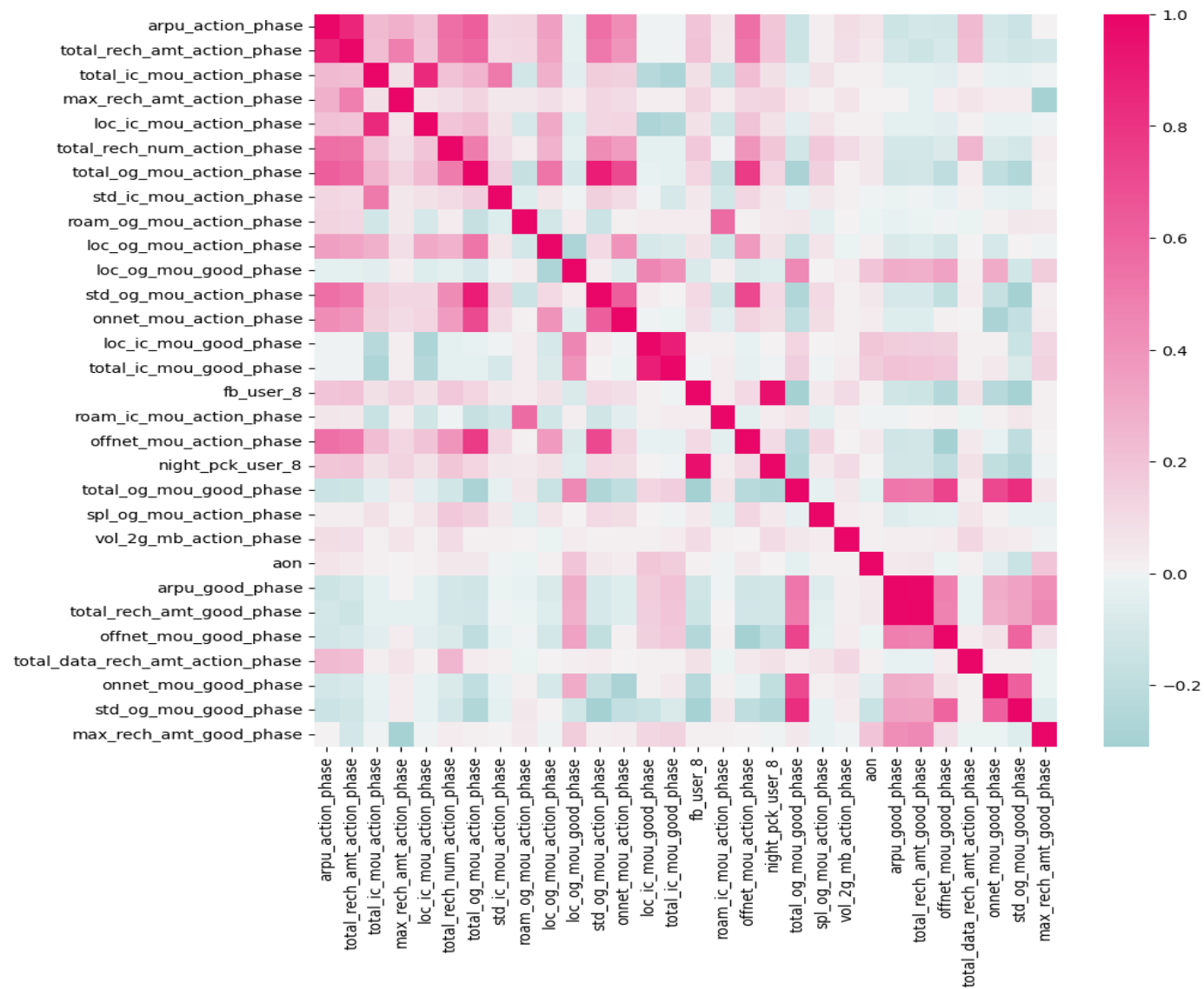


Heat Map between Different Variables





Cumulative Variance Ratio



Heat Map between Variables

# Business Insights

- 1) Telecom company needs to pay attention to the roaming rates. They need to provide good offers to the customers who are using services from a roaming zone.
- 2) The company needs to focus on the STD and ISD rates. Perhaps, the rates are too high. Provide them with some kind of STD and ISD packages.
- 3) To look into both of the issues stated above, it is desired that the telecom company collects customer query and complaint data and work on their services according to the needs of customers.

**THANK YOU**