



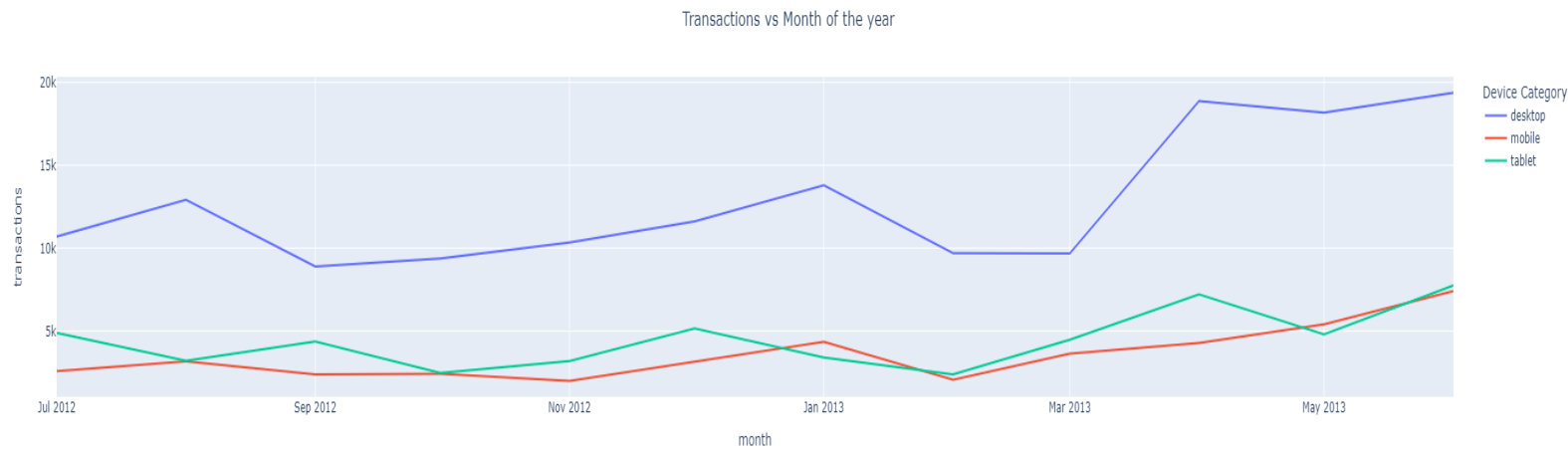
IXIS DATA SCIENCE CHALLENGE



ANALYSIS OF WEBSITE PERFORMANCE

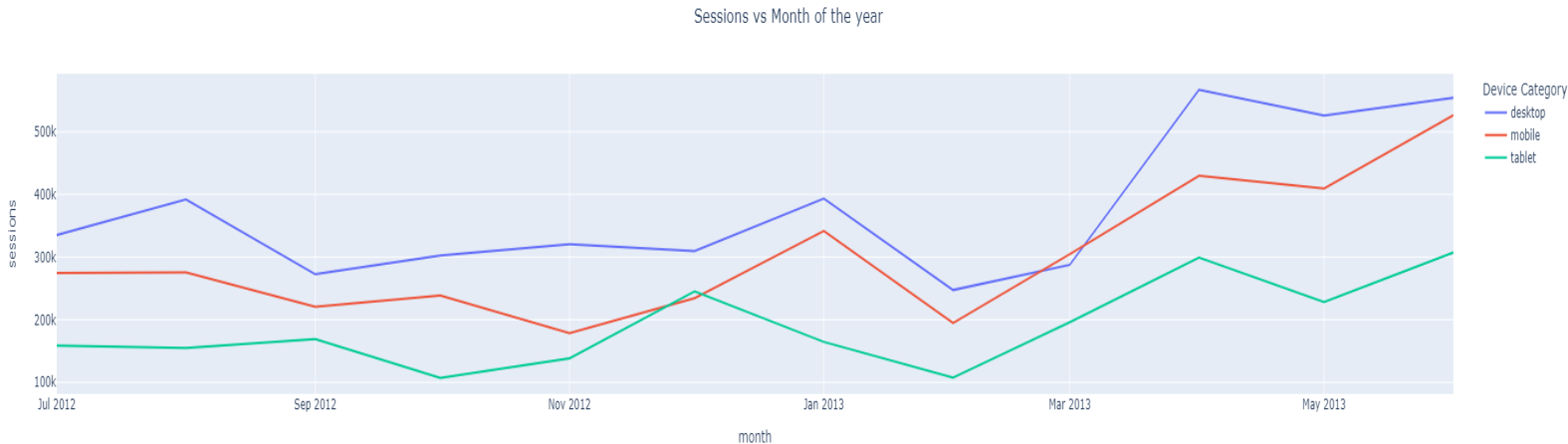
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Transactions per Month by Device Category



- Majority of transactions during this time period were completed from a desktop device
- There is a strong uptick in desktop transactions as well as sessions during the March 2013 to April 2013

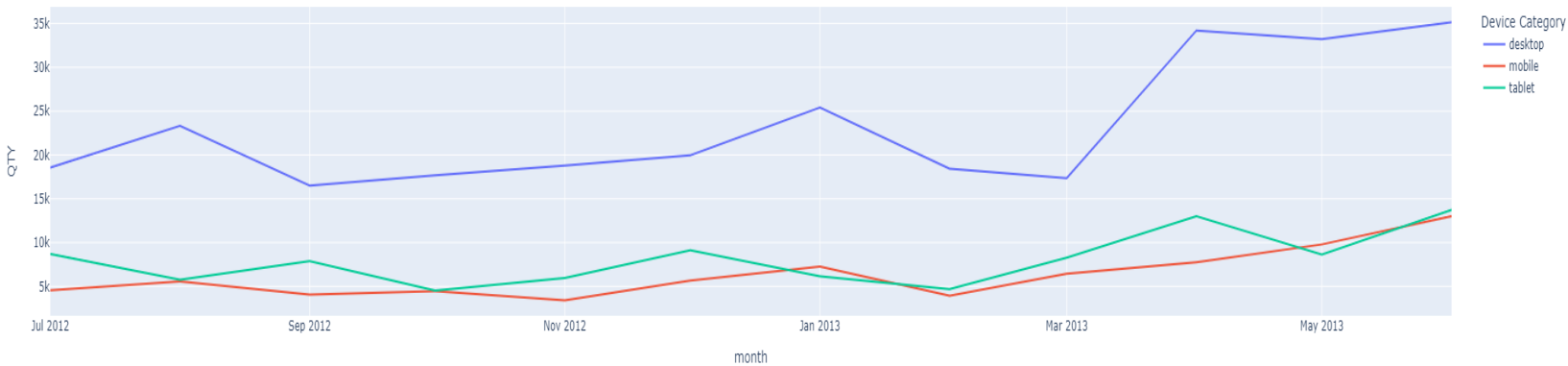
Sessions per Month by Device Category



- Majority of sessions during this time period were hosted from a desktop device but very closely followed by mobile and tablet devices but there is highest variability between them during April 2013 to May 2013
- There is a strong positive trend in sessions across all devices from around the month February 2013 to April 2013

QTY per Month by Device Category

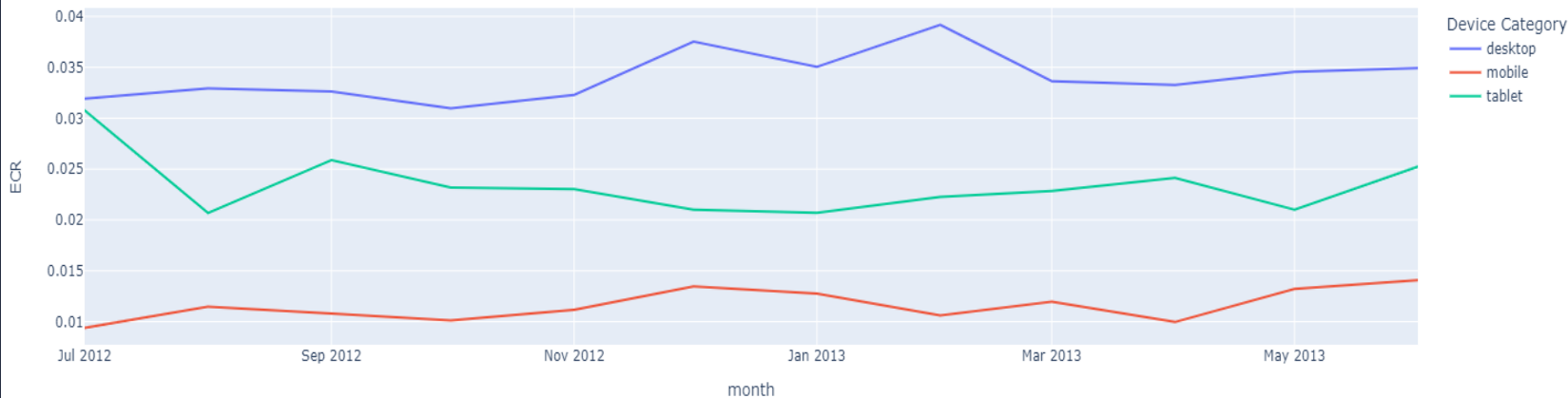
QTY vs Month of the year



- Desktop devices have amount for the highest order quantities. Mobile and Tablet devices have very low order quantities but similar to each other
- Mobile devices represent the lowest ECR in comparison to the Desktops and Tablets

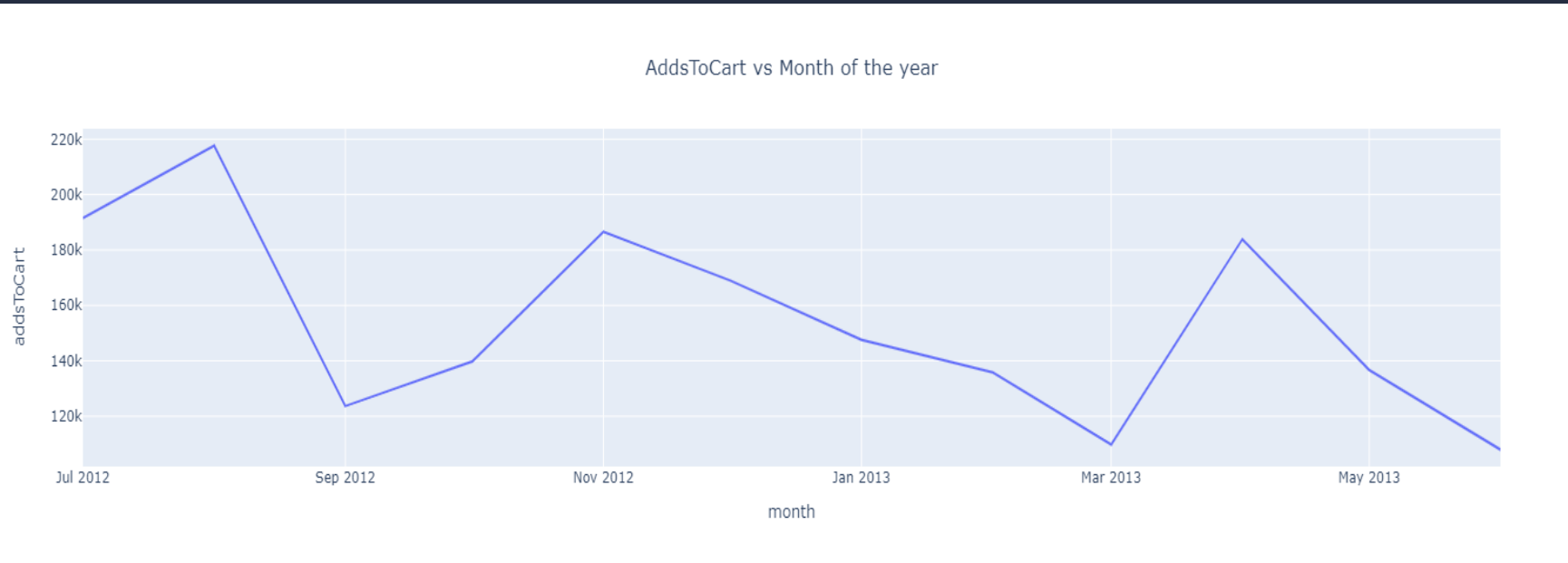
ECR(Transactions/Sessions) per Month by Device Category

ECR vs Month of the year



- ECR is represented the highest by Desktop devices
- ECR sharply declined within tablet devices from July 2012 to August 2012 but bounced back halfway to its starting position the month after and has stayed fairly stable during the rest of the time period

AddsToCart per Month



- August 2012 was the peak recorded AddsToCart during this time period followed by a very sharp decline till September 2012 which was subsequently followed by alternating rising and decline amounts of AddsToCart for the remainder of the time period

Comparison between the last two months;

	month	Sessions	Transactions	QTY	ECR	addsToCart	difference
0	2013-05	1164376.00000	28389.00000	51629.00000	0.06876	410160.00000	
1	2013-06	1388516.00000	34538.00000	61891.00000	0.07423	323910.00000	
2		224140.00000	6149.00000	10262.00000	0.00547	-86250.00000	Absolute
3		0.19250	0.21660	0.19876	0.07951	-0.21028	Relative

- All metrics except for AddsToCart have a positive shift as move toward the month of June 2013
- Transactions represent the most relative growth within the last month followed by QTY, Sessions and ECR in that order

ACTION ITEMS:

- *Propose adding a new metric for conversion rates that could be calculated using the AddToCarts and Transactions variables to get a better understanding of how many AddToCarts lead to a successful transaction*
- *Propose deeper analysis into Mobile and Tablet devices to explore why transaction rates are significantly lower in comparison to Desktop devices*
- *Desktop device users are overall the most profitable so ~~prioritize this~~ category*
- *Use multivariate analysis to analyze other financial(Income, SubscriptionStatus) and demographic (Age, Gender) variables that may play a part in the disparity of transaction rates between the different device categories*

