DubMeNow

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dub your mobile business card

Question & Goal

- Video
- Exploratory - What drives mobile users to become active users of DubMeNow?
- Separated users into two group
  - Active
  - Inactive
- Goal
  - To better understand what activities and behaviors drive users to become more active, and provide DUB with this information to help them better develop marketing strategy to increase the user retention rate.

Finding

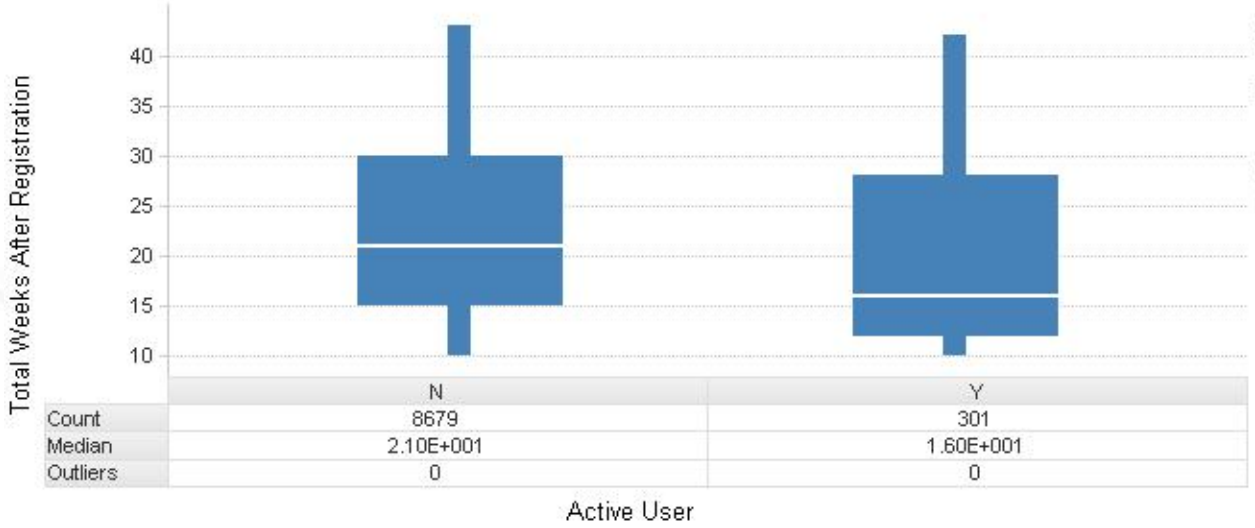
- Importance of social networks
- Acceptance is important!!!
  - Accepting your invitations
  - Receiving invitations
- People lose interest after a certain period of time

Exploration Methods

- SpotFire
  - Scatter Plot, Box Plot, Bar Chart
- Pivot Table
- XLMiner
  - Classification Tree
  - Discriminant Analysis
  - Logistic Regression
  - Cluster Analysis

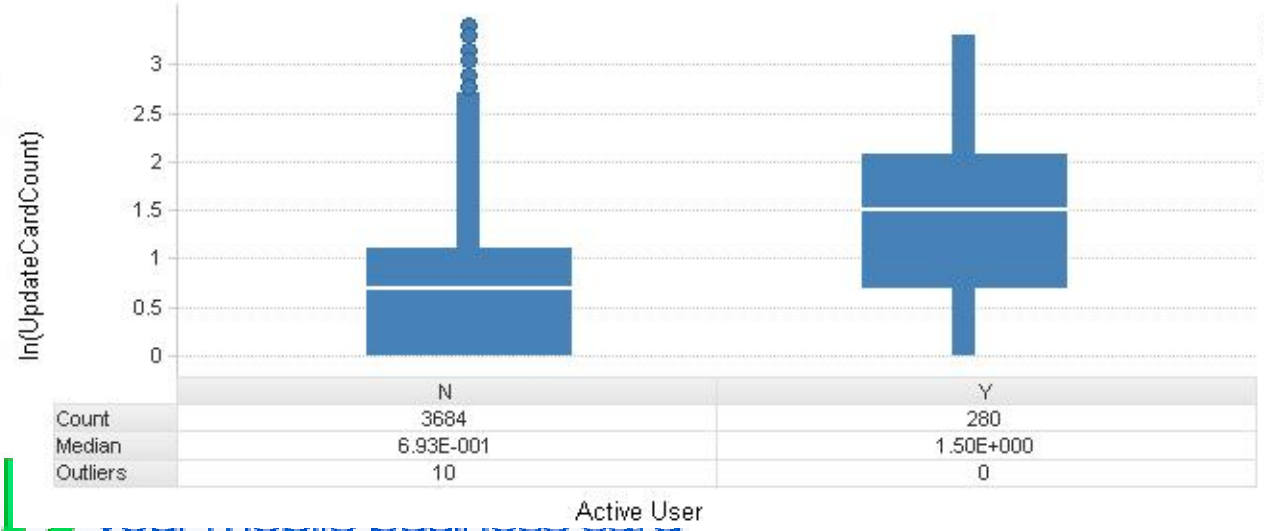
Box Plots

Box Plot



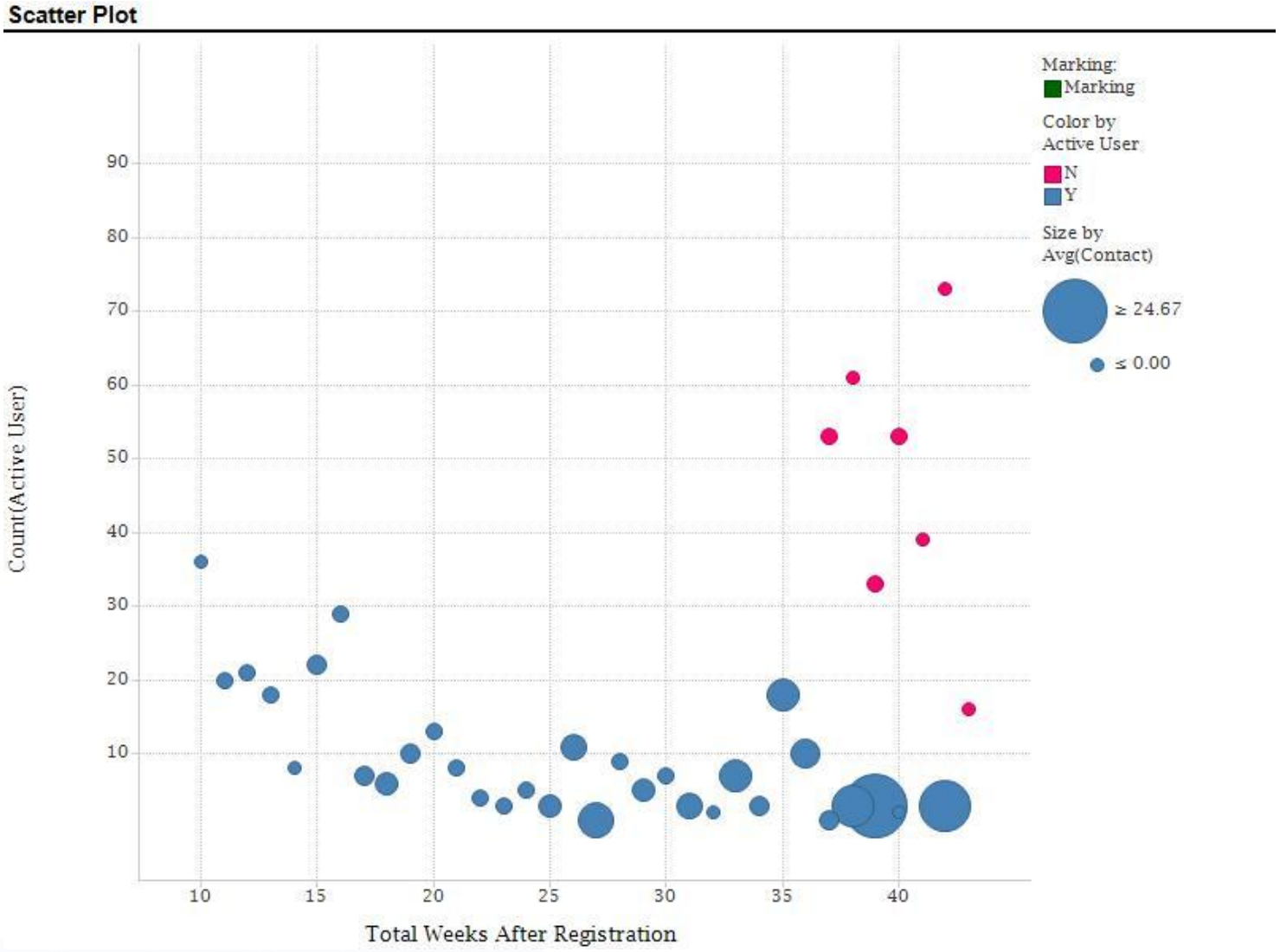
	N	Y
Count	8679	301
Median	2.10E+001	1.60E+001
Outliers	0	0

Box Plot

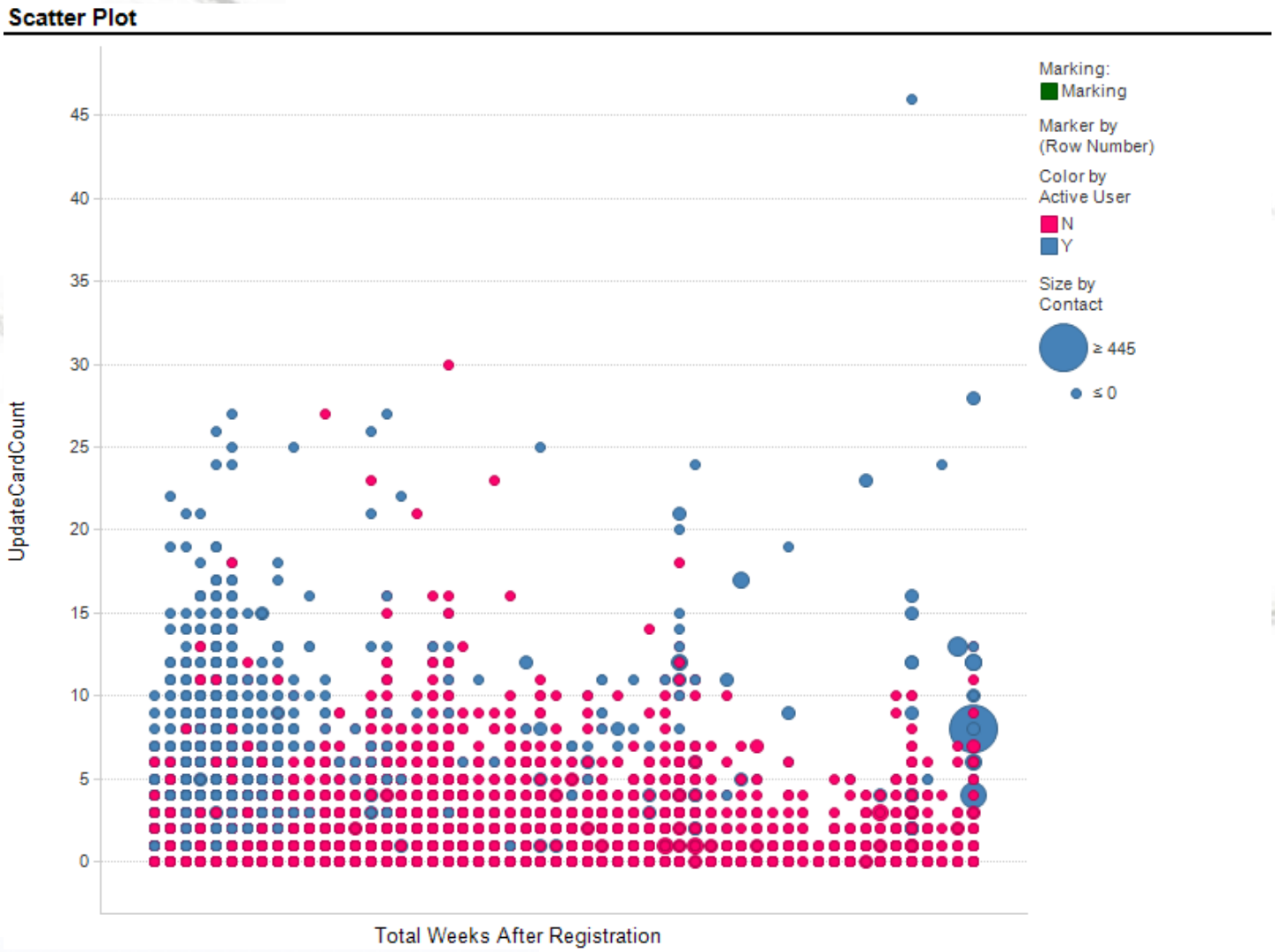


	N	Y
Count	3684	280
Median	6.93E-001	1.50E+000
Outliers	10	0

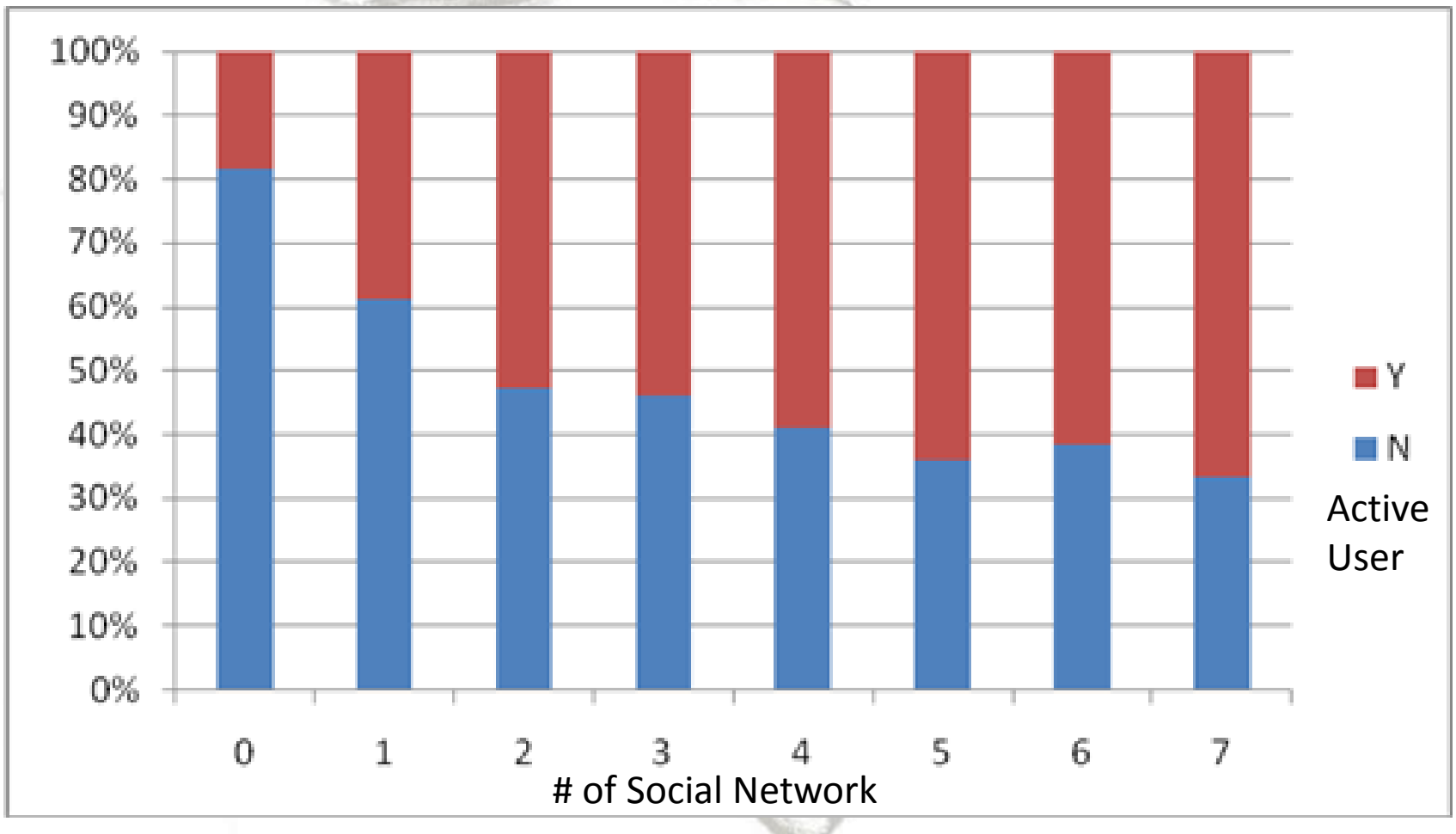
Scatter Plot



Scatter Plot



Bar Chart



Pivot Table

Data	Active User		Grand Total
	N	Y	
Average of AcceptInvitation	0.10745108	**0.17678588**	0.12225489
Average of AcceptYourInvitation	0.06751129	**0.29562887**	0.11621712
Average of UpdateCardCount	0.55245861	**2.18233065**	0.90045579
Average of Contact	0.05888108	**0.28028833**	0.10615418
Average of SocialNetwork	0.08356749	**0.41382497**	0.15408141
Average of IM	0.11954340	**0.39377137**	0.17809435
Average of Total Weeks After Registration	**10.16650778**	5.40162647	9.14914860
Average of InvitationReceived	0.14530858	**0.21504482**	0.16019810
Average of InvitationSent	1.20735073	**4.77229461**	1.96850891

Models – Discriminant Analysis

Variables	Classification Function		Absolute Difference
	Y	N	
AcceptInvitation	0.03906569	0.11315618	0.62672881
AcceptYourInvitation	0.66981965	0.08803784	0.59099063
UpdateCardCount	0.23786096	0.02571089	0.58178181
Contact	0.59832996	0.2421916	0.50539813
SocialNetwork	-0.64625776	-0.14085963	0.35613836
IM	0.00038447	0.00021238	0.21215007
Total Weeks After Registration	0.22461542	0.20800151	0.07409049
InvitationReceived	0.62678605	0.03579542	0.01661391
InvitationSent	0.3698566	-0.25687221	0.00017209

Cut off Prob.Val. for Success (Updatable)	0.5

Classification Confusion Matrix		
	Predicted Class	
Actual Class	Y	N
Y	1229	891
N	1008	6872

Equal prior probabilities

Class	Actual Prob.	Misclass. Costs	Altered Prob.	
Y	0.5	1	0.5	<-- Success Class
N	0.5	1	0.5	

Error Report			
Class	# Cases	# Errors	% Error
Y	2120	891	42.03
N	7880	1008	12.79
Overall	10000	1899	18.99

Models – Logistic Regression

Input variables	Coefficient	Std. Error	p-value	Odds
Constant term	-0.6479165	0.0644445	0	*
Total Weeks After Registration	-0.24885428	0.01171437	0	0.7796936
UpdateCardCount	0.65867007	0.02317566	0	1.93222094
IM	0.11965668	0.05472173	0.02876888	1.12710977
SocialNetwork	0.17492075	0.051659	0.00070903	1.19115186
Contact	-0.28207234	0.08846086	0.0014293	0.75421911
AcceptYourInvitation	0.88276178	0.08866508	0	2.41756725
AcceptInvitation	0.71505439	0.0926279	0	2.04429793

Residual df	9992
Residual Dev.	7706.01416
% Success in training data	21.2
# Iterations used	9
Multiple R-squared	0.25415251

Cut off Prob.Val. for Success (Updatable)	0.5

Classification Confusion Matrix		
	Predicted Class	
Actual Class	Y	N
Y	755	1365
N	284	7596

According to relative occurrences in training data

Class	Prob.	
Y	0.212	<-- Success Class
N	0.788	

Error Report			
Class	# Cases	# Errors	% Error
Y	2120	1365	64.39
N	7880	284	3.60
Overall	10000	1649	16.49

Cluster Analysis

Cluster	Total Weeks After Registration	UpdateCardCount	IM	SocialNetwork	Contact	AcceptYourInvitation	AcceptInvitation
Cluster-1	5.003371	1.714084	0.14758	0.135074	0.09168	0.159326	0.114845
Cluster-2	5.485564	4.624017	1.852364	2.091862	0.194226	0.290682	0.138451
Cluster-3	40.04901	7.911773	0.794118	0.470588	18.56862	12.656854	6.333332

Distance between cluster centers	Cluster-1	Cluster-2	Cluster-3
Cluster-1	0	3.93241054	42.46638442
Cluster-2	3.93241054	0	41.69060622
Cluster-3	42.46638442	41.69060622	0

Conclusions

- Users who are new to the services tend to be more active
- Users who updated their card more often tend to be more active
- Users who have more IM accounts tend to be more active
- Users who have more social networks tend to be more active
- Users whose invitations are accepted are more likely to be active
- Users who received more invitations are more likely to be active

Recommendations

- DUB should encourage…
  - Social network usage
    - Integration with social networks
    - Reminders
  - Send out more invitations
  - Update their cards
  - Senior users to become active again
    - Motivations?

Questions