How can we increase revenue from Catch the Pink Flamingo?

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Problem Statement

How can we use the following data sets to understand options for increasing revenue from game players?

User details

Team details

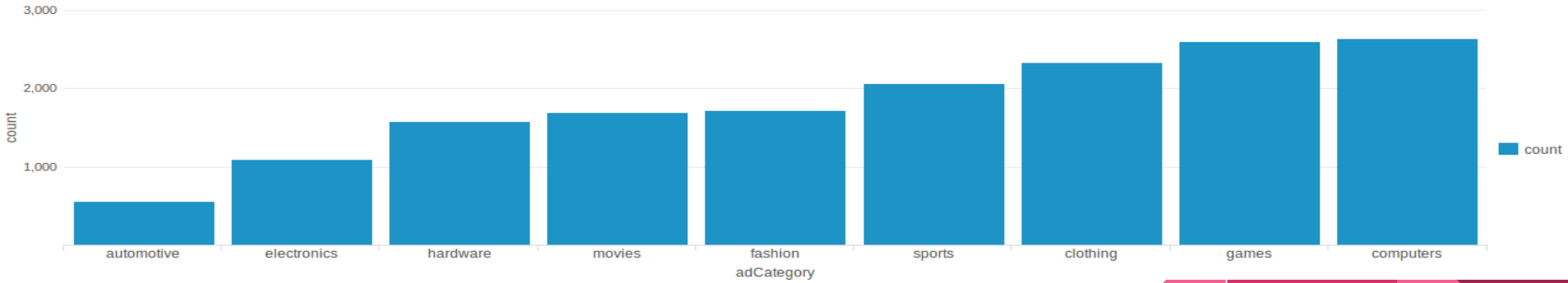
Click Stream

Chat history

Image courtesy : google

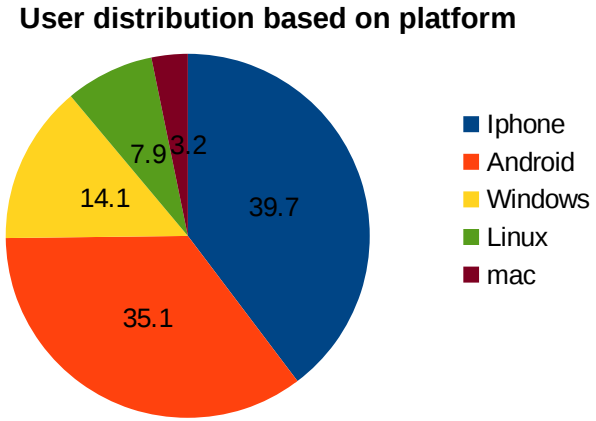
Data Exploration Overview

1. Most clicked adCategory among the players are Computers, Games and Clothing.



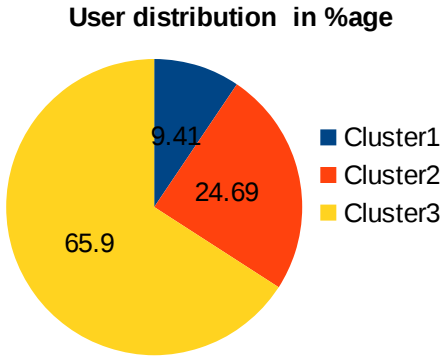
What have we learned from classification?

1. Majority of Iphone users are HighRoller (Avg. Spending more than 5)
2. Android, linux, Windows and mac users are PennyPinchers
3. User distribution



What have we learned from clustering?

Cluster No.	Cluster Center (Ad clicks, amt spend)	Cluster Size
1	[40.87037037,138.24074074]	53
2	[34.61643836, 59.28767123]	139
3	[25.33236152, 15.29446064]	371



From our chat graph analysis, what further exploration should we undertake?

1. User ranking and Team ranking for players involved in long conversations.
2. Tine durations across which long conversations span.
3. 85% of chat conversations are just one or two threads long.

Recommendation

1. Increase the frequency of ads display belonging to computers, Games and Clothing categories.
2. Run a campaign to promote in-app purchases for android platform users.

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The data analyzed includes user data containing demographic details, team details which included team performance parameters, team assignment which maps users to teams, user session details.Click stream data like ads clicked, game clicks and buy clicks were also explored.The interaction among players via chat data was looked into.This data is coming from different sources including database, log files and chat history.

It is important to explore data of different kind and from different sources.Each data has a story to tell by itself.Different kind of information can be extracted from each.Example exploring user data one can study demographic distribution of the players.Analyzing the data from click stream can be useful in identifying buying patterns for in-app purchases and click patterns for different ad categories.This might give some insights about identifying new revenue opportunities , since the game generates its revenue by hosting ads and selling in-app products.Evaluating chat data one can understand the interaction patterns among the players.Can get some inputs about how the chatting feature is contributing in making the game engaging for the players.Lot of inferences can be made by exploring data of different kinds and from different sources which Eglence can use for its benefits.

Doing an exploratory analysis on Ad click data, few of the points we came across are: There are nine different adCategories which an ad can belong to.The top three categories which are most popular among these are Computers,Games and Clothing.

For the available data , Majority of Iphone users are high Rollers i.e. on an average they spend more that 5$, whereas other platform users which includes Android, Windows, Linux and mac are penny pincher.They spend on an average less than or equal to 5$ on purchasing in-app items.Also looking at the distribution of users based on platform, one can see that Iphone and android users contribute to almost 75% of user base.Eglence can run a campaign to promote in-app purchases for android platform users as they make 35% of user base.If we work to change Android users from penny pincher to high-roller , will lead to increase in revenue proportionally.

Clustering users, based on number of ads clicked and amount spend on purchasing in-app items in to three clusters , provides some insight about the user behavior.It is observed that cluster1 spends almost nine times more than cluster3 where as cluster2 spends three times more than cluster3 on in-app purchases.Players in cluster1 clicks on ads 1.5 times more than the players in cluster3.Cluster1 where in players clicks the most and spends the most is comparatively smaller in size as compared to others.Cluster2 and cluster3 are quite large.This can be considered as an opportunity and users in these clusters can be targeted.

For the users and team involved in the long conversations, we can identify user ranking and team ranking and the team level.This will help us understand if its a specific game level at which the team needs to interact more.

We can further investigate the time durations across which long conversations span.This can lead us to better understand how much chatting as a feature is contributing to make the game engaging for players.

Comparing the length of conversations one can infer, that more than 85% of chat conversations are just one or two threads long.This can be further investigated for reasoning.

Most popular ad categories as mentioned earlier are Computers, Games and Clothings.If we look at the age distribution of the players , we infer that the average age is around 39 years and majority of the players are between the age of 28 and 51.Making it obvious that users will be more interested in Computers , Games and Clothing.Also understanding the pricing model of eglence for digital advertising, which is CPC i.e. Cost Per Click.Increasing the frequency of ads belonging to these categories will increases the chances of being clicked by the user.Further leading to increase in revenue for Eglence.

Android platform users forms 35% of the total user base.Most of them spend less than 5$ on an average on in-app purchases.Eglence can focus on targeting these customers and making them spend more than 5$.One possible option for achieving this is running a campaign to promote in-app purchases for android platform users.This will subsequently lead to increase in revenue proportionally.