

# How can we increase revenue from Catch the Pink Flamingo?

Sarsiz Chauhan



# Problem Statement

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

We have 2 Data Sets and Generated 3<sup>rd</sup> one by combining Data from 3 of the log files.

1. [Flamingo-data.zip](#) : contains Advertisements, Purchases, Game(clicks and levels), Users, Teams.
2. [Chat-data.zip](#) : contains the user chatting behaviour and the interaction among other people

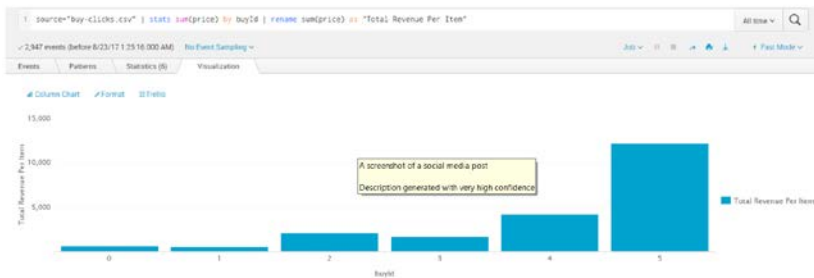




# Data Exploration Overview

- 6(csv) + 8(csv) files consisting of mouse-clicks, ad-clicks, buy-clicks records, player profile, team and chat interactivity.

2. A histogram showing how much money was made from each item:



1. A histogram showing how many times each item is purchased:



- The graph on left depicts how much money was made from each item while the second graph(on the right) shows how many times each item is purchased.

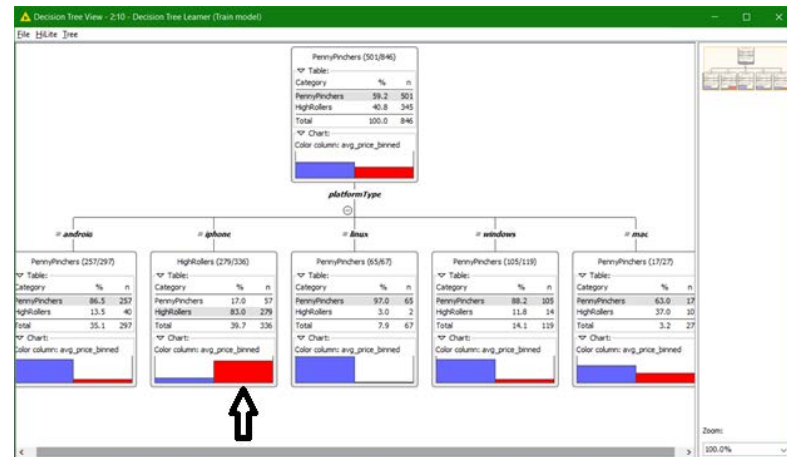


# What have we learned from classification?

There are **5** different platforms and from **Decision Tree Analysis** it's clear that **ios players** are **high spenders** in the game (termed as HighRollers). Thus Platform plays a significant role in predicting whether a player is a high roller or not.



So, Just by knowing player's gaming platform, we **can predict whether the user is a Highroller** or not, with an **error rate of 11%**



Correct classified: 500

Accuracy: 88.496 %

Cohen's kappa ( $\kappa$ ) 0.76

Wrong classified: 65

Error: 11.504 %



# What have we learned from clustering?

Cluster #	Cluster Center
1 Free Loader	Average buy-clicks :: 0.02 Average Expenditure :: 0.03 Average ad-clicks :: 0.23  <i>Cluster size :: 589, 54% of dataset</i>
2 Penny Picher	Average buy-clicks :: 0.94 Average Expenditure :: 4.30 Average ad-clicks :: 5.83  <i>Cluster size :: 390, 35.7% of dataset</i>
3 High Roller	Average buy-clicks :: 1.58 Average Expenditure :: 20.19 Average ad-clicks :: 5.71  <i>Cluster size :: 112, 10.3% of dataset</i>

- High Rollers *average expenditure* is **5 times** more than the Penny Pinchers.
- Also the *purchases* made by High Rollers are **68% more** than the Penny Pinchers
- **10% proportion** of High Rollers have potential to grow further.





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

Most Active Users (based on Cluster Coefficients)

User ID	Coefficient
394	1
461	1
209	0.9523809523809523
516	0.9523809523809523
554	0.904761904761904
999	0.8666666666666666
1087	0.8
2067	0.785714285714285
1627	0.785714285714285
668	0.7

- Chatty users may not necessarily be in the chatty teams
- It turned out that **only one** of the **top 10** chattiest users is from the top 10 chattiest Team.
- This user has a userID of **999** (8th in top 10 chattiest user), and the team for this user has a **teamID** of **52**.
- Most active users are **394** and **461** (based on cluster coefficients)

userID	chatNum	teamId	chatNum
394	115	82	1324
2067	111	185	1036
209	109	112	957
1087	109	18	844
554	107	194	836
516	105	129	814
1627	105	52	788
999	105	136	783
668	104	146	746
461	104	81	736



# Recommendation

- Need to focus more on the marketing strategy for iOS platform to promote CTPF to more users and also certain extra features or events can be arranged for them to promote new improvements in game.
- Provide discounts to Android Users to entice them to make more purchases and for freeloaders we can offer them some special discounts for a limited time like 'Once in a lifetime offer'.
- Item 5 is definitely quite popular as it generates almost half of the revenue. So this item should be promoted more among players especially among iOS.
- Item 2 is the most purchased item, we might look into the pricing of it or some discounts to generate revenue from this item too.
- Give some perks to the chattiest users and teams. Also certain task can be given to them like giving review on their respective game store to improve the ranking and popularity of the game thus increasing downloads and rankup in the store

