

How can we increase revenue  
from  
Catch the Pink Flamingo?



# Problem Statement

Unlock the power of the data and the analytics to identify new revenue opportunities and gain insight into player behaviors.

## Data Source:

- Players activities during the game
- Chats between Players

### Players activities during the game

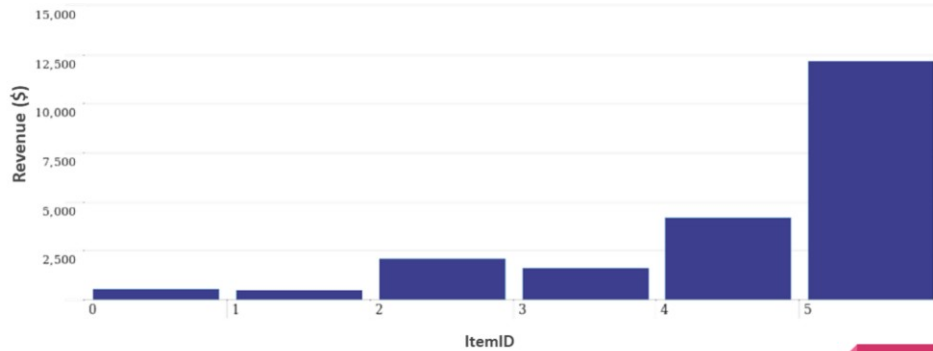
This data help us to evaluate when and where the users clicks on the screen, when the user purchase an in-app item or clicks on a banner. Understanding this data help us to evaluate and design better game UX that convert more, target specific promotion to specific users and price strategy.

### Chats between players

This data is very useful, we can find the most influential players and what is the hottest topic. We can define more efficient marketing campaign strategies based on the insights we discovered from this data.

# Data Exploration Overview

## Revenue Generated from In-App Purchase Items



**ItemID 5 generate 57% of total revenue. More than all other items combined!**

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We could develop a marketing strategy that promote sales of itemID 5.

## What have we learned from classification?



Focus on the iPhone!

Most players are on mobile platforms, Iphone player are likely to be HighRoller while android players tend to be PennyPinchers.  
Promoting game among iOS and Mac users will increase the revenue.

## What have we learned from clustering?

Cluster #	Cluster Center ['totalAdClicks', 'totalBuyClicks', 'totalRevenue']
1	[41.07, 10.29, 145.51]
2	[34.28, 6.45, 67.22]
3	[26.30, 4.48, 17.07]

**totalAdClicks:** Total number of ad-clicks per user

**totalBuyClicks:** Total number of in-app purchase per user

**totalRevenue:** Total money spent on in-app purchase items per user

K-means Cluster analysis based on these 3 attributes resulted in 3 cluster

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Cluster 1 is different from the others in that the players in the cluster have the highest 'totalAdClicks', 'totalBuyClicks' and 'totalRevenue'. They are frequent ad-clickers. We could increase the price for ads targeting for these players.

Cluster 2 is different from the others in that the players in the cluster have the second highest 'totalAdClicks', 'totalBuyClicks' and 'totalRevenue'.

Cluster 3 is different from the others in that the players in the cluster have the lowest 'totalAdClicks', 'totalBuyClicks' and 'totalRevenue'. They spend items with lower price. We could encourage them to spend more with promotional codes.

## Graph analysis on chat data

- Found the longest conversation chain and its participants
- Analyzed relationship between Top10 chattiest users and Top10 chattiest teams
- Found the Top3 most active users based on clustering coefficient



Found the longest conversation chain and its participants

We could use this information to find hottest topic and business strategies on those.

Analyzed relationship between Top10 chattiest users and Top10 chattiest teams

It seems that there isn't relationship between chattiest users and chattiest teams. This suggests that we may need different business strategies between the two categories.

Found the Top3 most active users based on clustering coefficient

Promoting targeting these players should be more effective than "normal" players

## Recommendation

- Focus on selling and developing in-app purchase items like the itemID 5
- Promoting the game to attract more iOS and Mac users
- Target specific group of players obtained from the results of clustering and graph analysis



Focus on selling and developing in-app purchase items like the itemID 5, it's the most profitable item.

Promoting the game to attract more iOS and Mac users. Players on these two platform are more likely to be High Roller who are willing to spend more

Pushing promotion to the most influencer players, they could easily attract the community

# End of Presentation

Thanks to all participants!