## **Data Exploration**

## **Data Set Overview**

The table below lists each of the files available for analysis with a short description of what is found in each one.

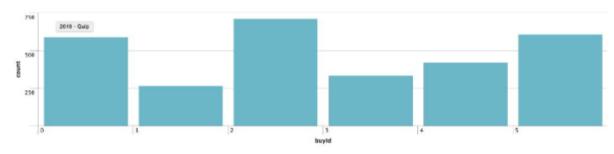
File Name	Description	Fields	
ad-ckicks.csv	Every time a user clicks on an advertisement, the information is captured as a new entry in this file.	timestamp: when the user clicked on the ad txld: an id for click on an ad userSessionId: the id for the session the user is playing during the time they clicked the ad teamId: the id of the team that the user who clicked on the ad is a part of userId: the id of the user adId: the id of the user adId: the id of the ad the user clicked on adCategory: the category of the ad that the user clicked on	
buy-clicks.csv	When a user makes a purchase, the information is added to this file as a new row.	timestamp: when the user bought the item txtld: an id for the click to buy an item userSessionId: the id for the session the user is playing during the time they bought an item team: which team the user is part of userId: the id of the user buyld: the id of the item bought price: the price the user paid for the item	
game-clicks.csv	Each click for the flamingo game is logged as a new row in this file.	timestamp: when the user clicked on the flamingo game clickld: an id for the click during the game userld: the id of the user userSessionId: the session id when the user made the click in the game isHit: whether a flamingo is hit or not (binary value) teamId: the id of the team the user is part of	

		teamLevel: the level of the team in the game	
level-events.csv	This file contains information on teams who have moved up, down, or stayed the same in game levels.	timestamp: time when the event happened eventId: a unique id for the event teamId: the id of the team teamLevel: level of the team at that time eventType: the end ot the start of the event	
team-assignments.cs v	This file contains information on which users are members of which teams.	timestamp: when the user joined the team team: name of the team userld: the id of the user assignmentld: the id when the user is assigned to the team	
team.csv	This file contains information on the team.	teamld: the id of the team name: the name of the team teamCreationTime: when the team was formed teamEndTime: time when the last member of the team left the team strength: how well the team is playing currentLevel: the current level of the team in the gam	
user-session.csv	This file records when a user begins and ends a gaming session.	timestamp: time when the user started or stopped playing userSessionId: a unique id for the session userId: user playing that session assignmentId: an assignment id of the team the user is a part of sessionType: the start or end of the event/session teamLevel: the level of the team during that session platformType: on which platform (mobile, web, etc) the user is playing	
users.csv	This file contains personal information about the user.	timestamp: when they became a user, signed up for the game userld: their unique id nick: nickname/username twitter: their twitter handler	

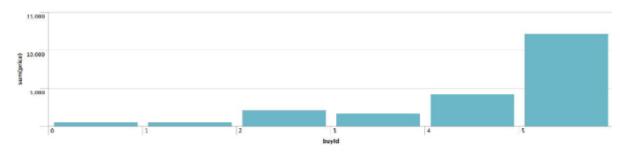
## Aggregation

Amount spent buying items	21407
Number of unique items available to be purchased	6

A histogram showing how many times each item is purchased:

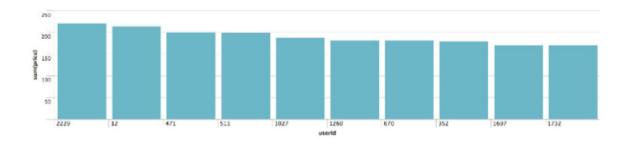


A histogram showing how much money was made from each item:



## Filtering

A histogram showing total amount of money spent by the top ten users (ranked by how much money they spent).



The following table shows the user id, platform, and hit-ratio percentage for the top three buying users:

Rank	User Id	Platform	Hit-Ratio (%)
1	2229	iPhone	11.596958
2	12	iPhone	13.068182
3	471	iPhone	14.503817