

## Introduction

In this project, I explored data about game software in Android and Apple Store. Mainly focus on exploring the relationship between game price, size and rating.

## Data preparation

The data of the Apple Store and Google Store I selected all come from the data platform kaggle. The reasons for choosing these data is that I want to explore the pricing range of most game apps, and whether the popularity of a game app can be affected by the price and the size of the software

I cleaned up and modified the original data. First, I only selected the intersecting attributes in two different datasets, such as size, rating, and price. Second, because I want to focus on the game app for this project, I deleted other types of software such as music, medical, etc. In order to distinguish free and paid software, I added a new value "paid" to data to judge whether the software is free or paid

	App	Category	Rating	Size	Price
1	PAC-MAN Premium	Games	4.0	96.119141	3.99
6	Shanghai Mahjong	Games	4.0	9.999955	0.99
10	Ms. PAC-MAN	Games	4.0	66.779297	3.99
11	Solitaire by MobilityWare	Games	4.5	47.320312	4.99
12	SCRABBLE Premium	Games	3.5	217.005859	7.99
15	FreeCell	Games	4.5	52.598633	4.99
21	Crash Bandicoot Nitro Kart 3D	Games	4.0	10.237719	2.99
23	:) Sudoku +	Games	5.0	5.883789	2.99
29	Hangman.	Games	3.0	4.544922	0.00
37	Blackjack by MobilityWare	Games	3.5	100.546875	0.00

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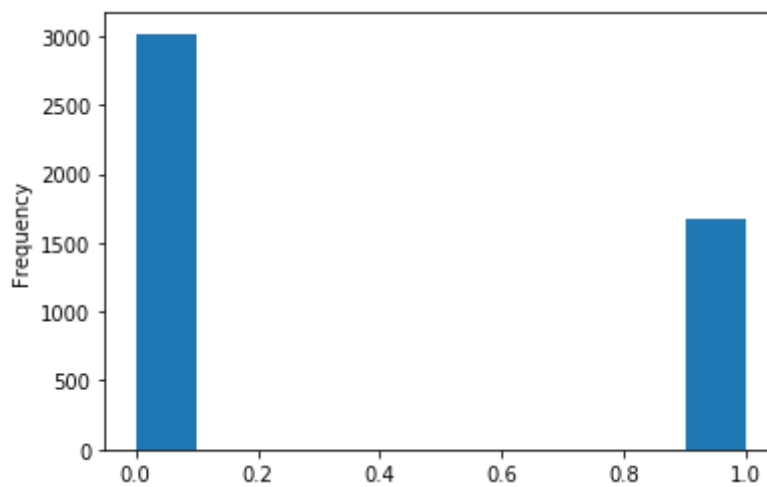
<sup>1</sup> The data-set after modification

Hanwen Jia  
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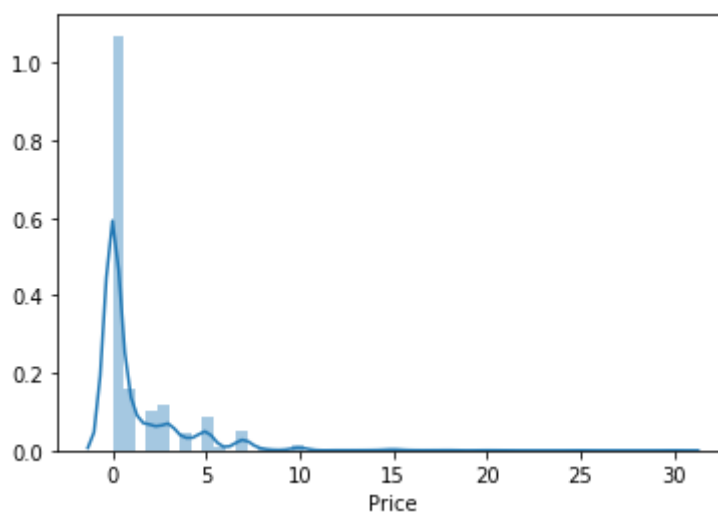
I also deleted some of the abnormal data and duplicate data, such as games whose size cannot be judged, and some games with missing key information.

## Result

When I was exploring the price range of software, I found that free games occupy the mainstream position.



For paid software, most of the price is less than 10 dollars.

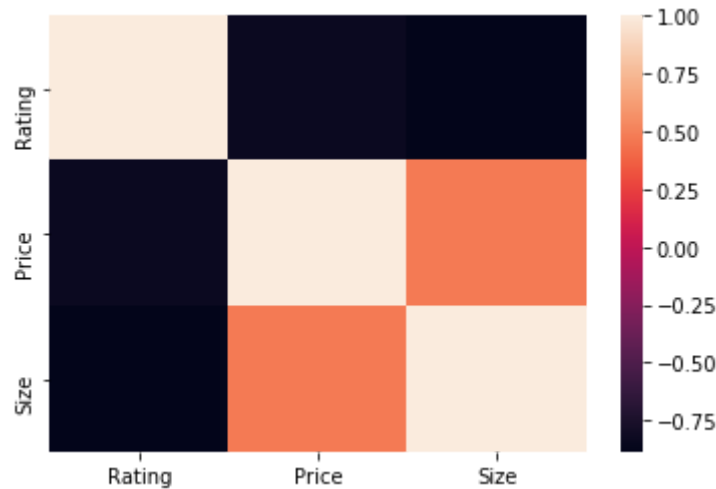


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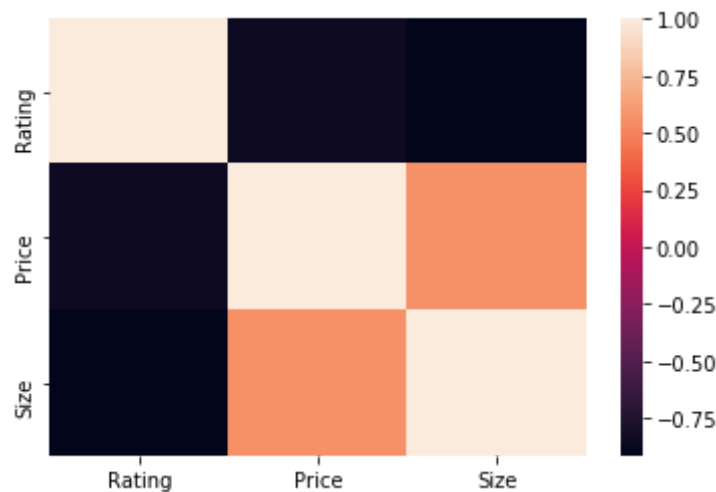
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When I was exploring the relationship between game price, rating, and size, the separation of separate paid games and free games did not significantly affect the results.

. Correlation diagram (free and paid game)



. Correlation diagram (paid game)



From the results, there is a very weak positive correlation between Price and Rating. This shows that for players, high-quality games are worth paying more money. But you cannot judge the quality of the game by price.

There is no positive correlation between the size of the game and the Rating of the game. It is even said that too large game capacity will cause a slight drop in the rating.

There is indeed a positive correlation between the price and size of the game, and it is inferred that the size of the game affects the pricing.

Hanwen Jia

2867816

My conclusion is that for mobile games, game makers should pay attention to the control of game size and strengthen the pursuit of game quality. At the same time, the price can be increased appropriately to compensate

## Reference

<sup>2</sup> <https://www.kaggle.com/harshaheera/appstore>

<sup>3</sup> <https://www.kaggle.com/samyakkala/googleplay>

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<sup>2</sup> "APPSTORE | Kaggle." 9 1月. 2020, <https://www.kaggle.com/harshaheera/appstore>。访问日期：7 9月. 2020。

<sup>3</sup> "googleplay | Kaggle." 13 4月. 2020, <https://www.kaggle.com/samyakkala/googleplay>。访问日期：7 9月. 2020。