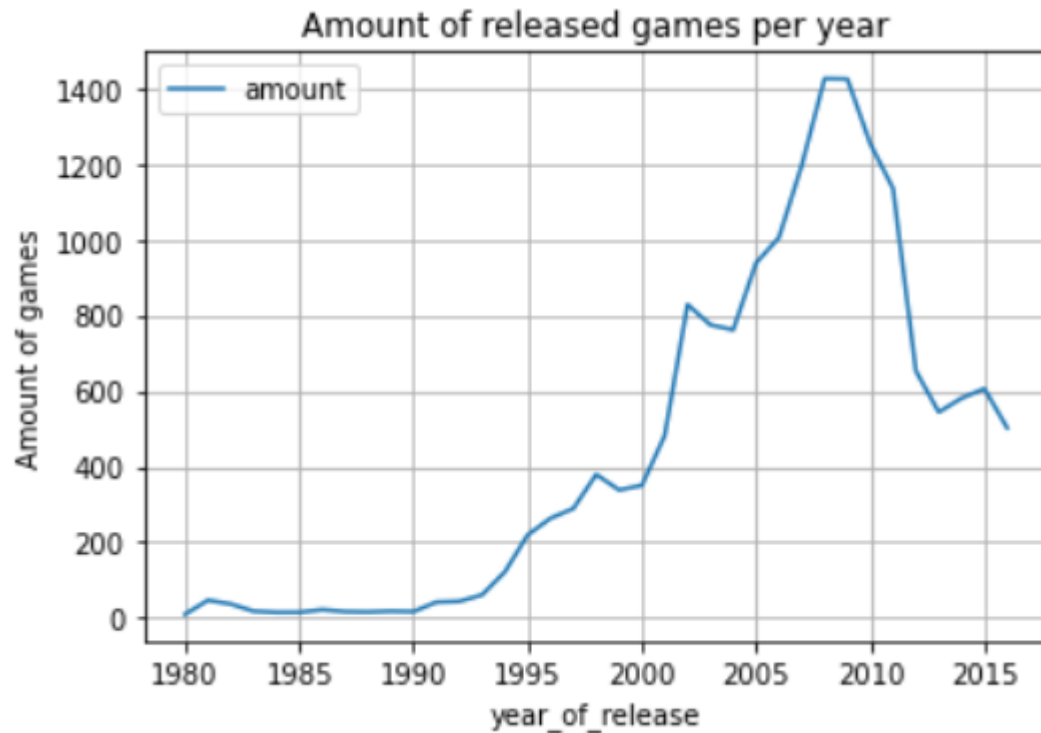# Video Game Sales Exploratory Data Analysis

Charikov Andrey

Goal of the project:

- Analyze market of video games for period 1980 until 2016
- Identify patterns that determine whether a game succeeds or not.
- Predict what platform/game genre will be popular next year.
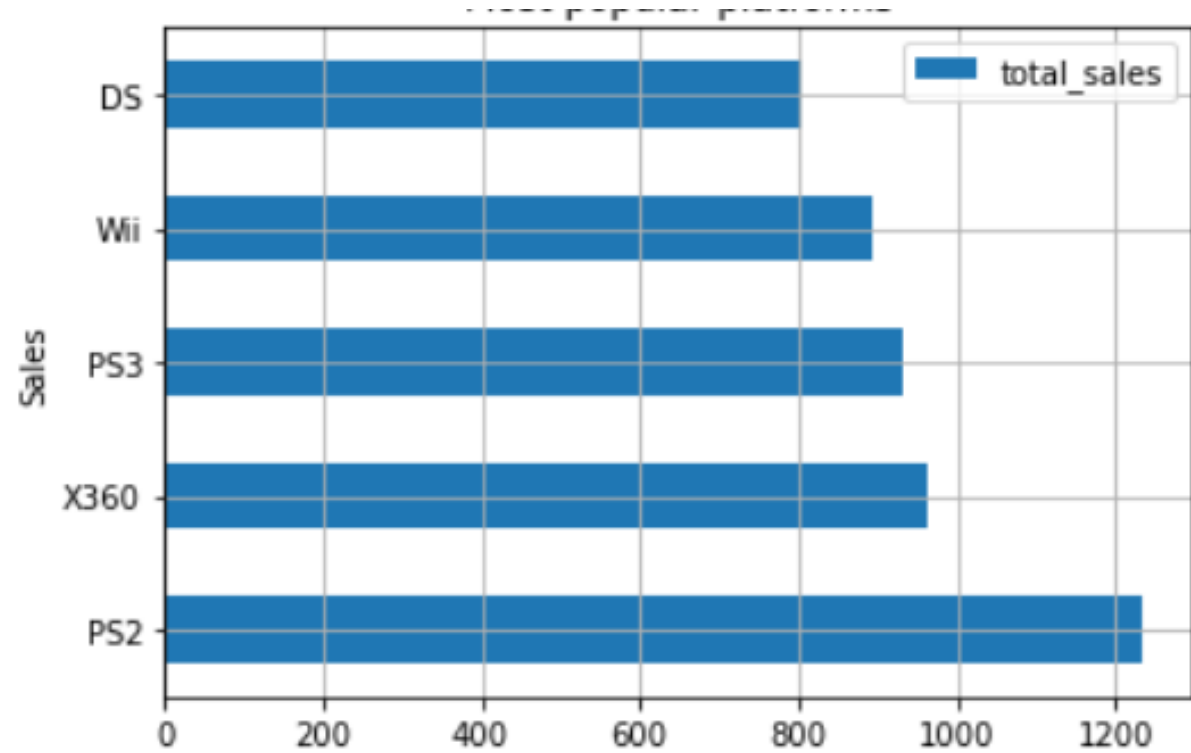
Amount of games released during the whole time.

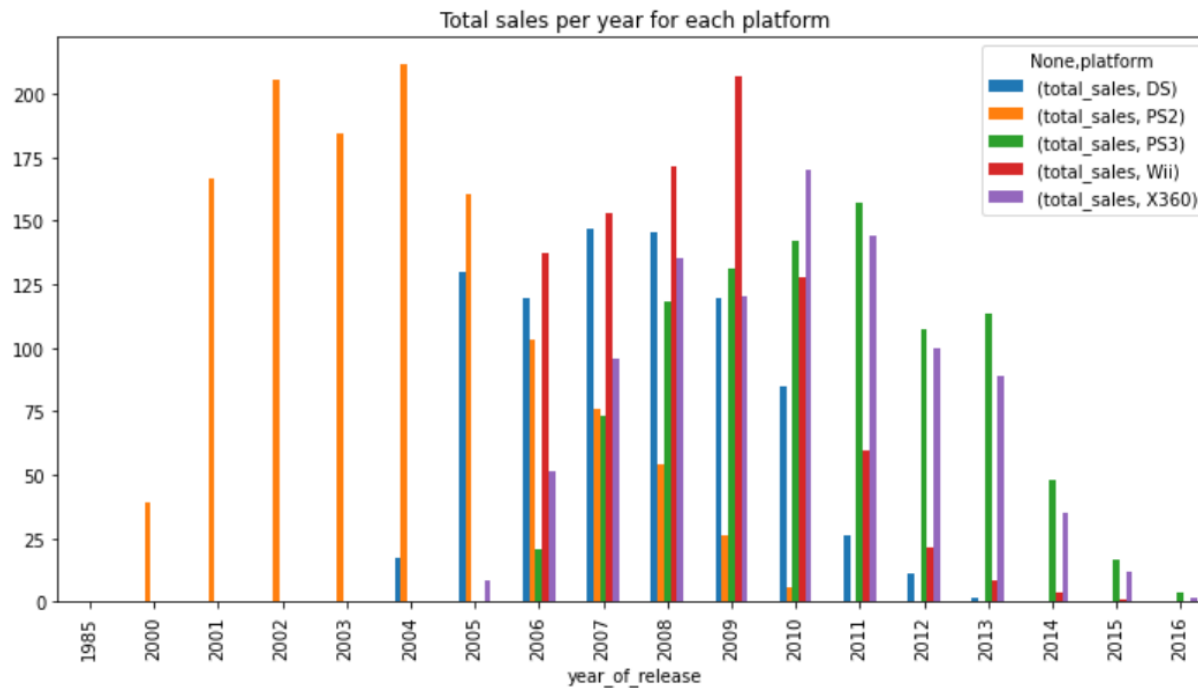Amount of released games per year

1980-1990: 221
1990-2000: 2103
2000-2010: 10098
2010-2016: 4022

Most popular platforms (total sales 1980-2016):

Sales distribution per year (all platforms).

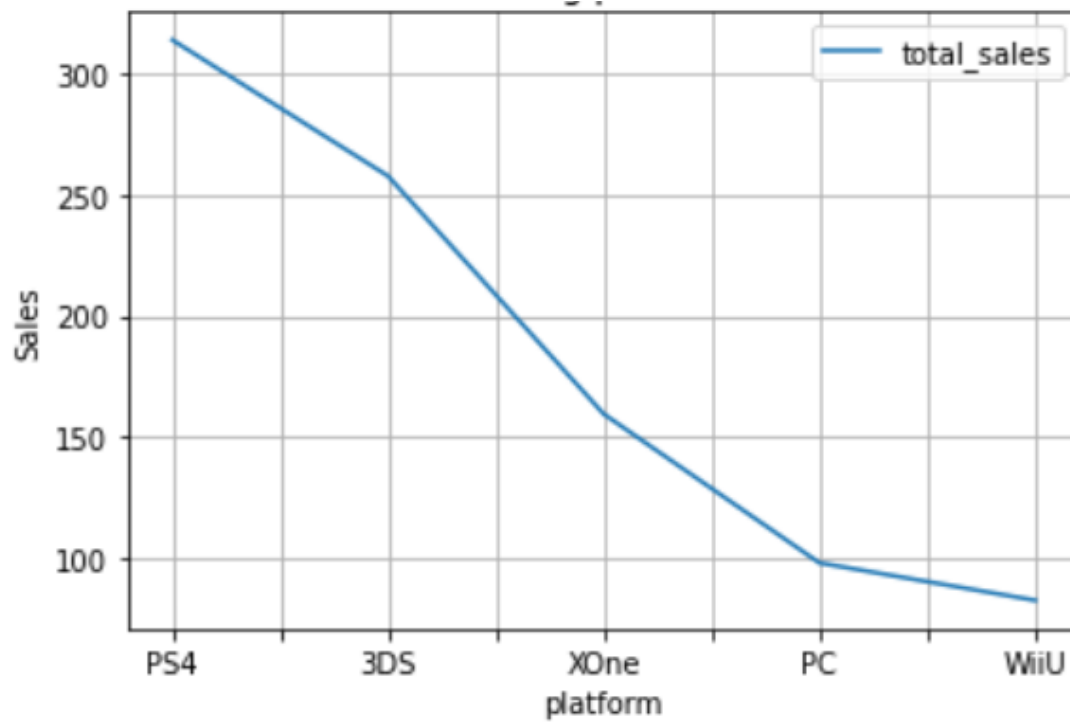Total sales per year for each platform

According to the graph on the left we can conclude that it usually takes 6-7 year for platforms to rise and almost disappear from the market.
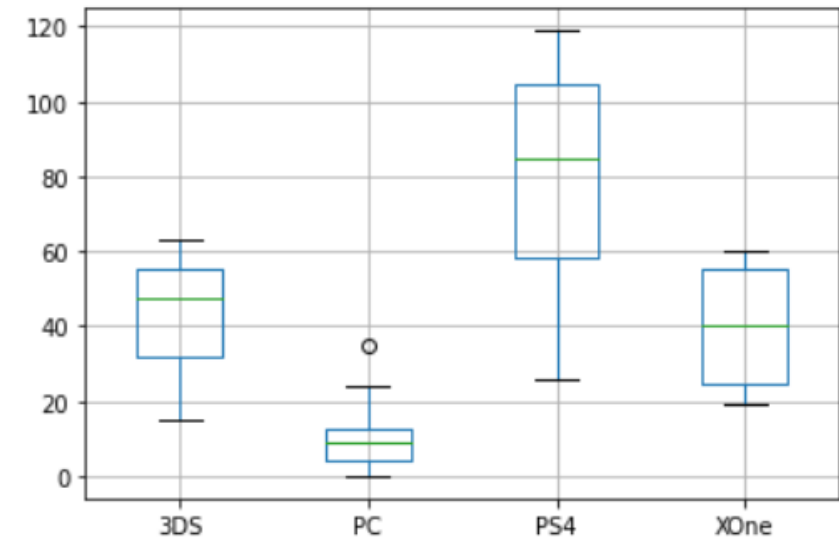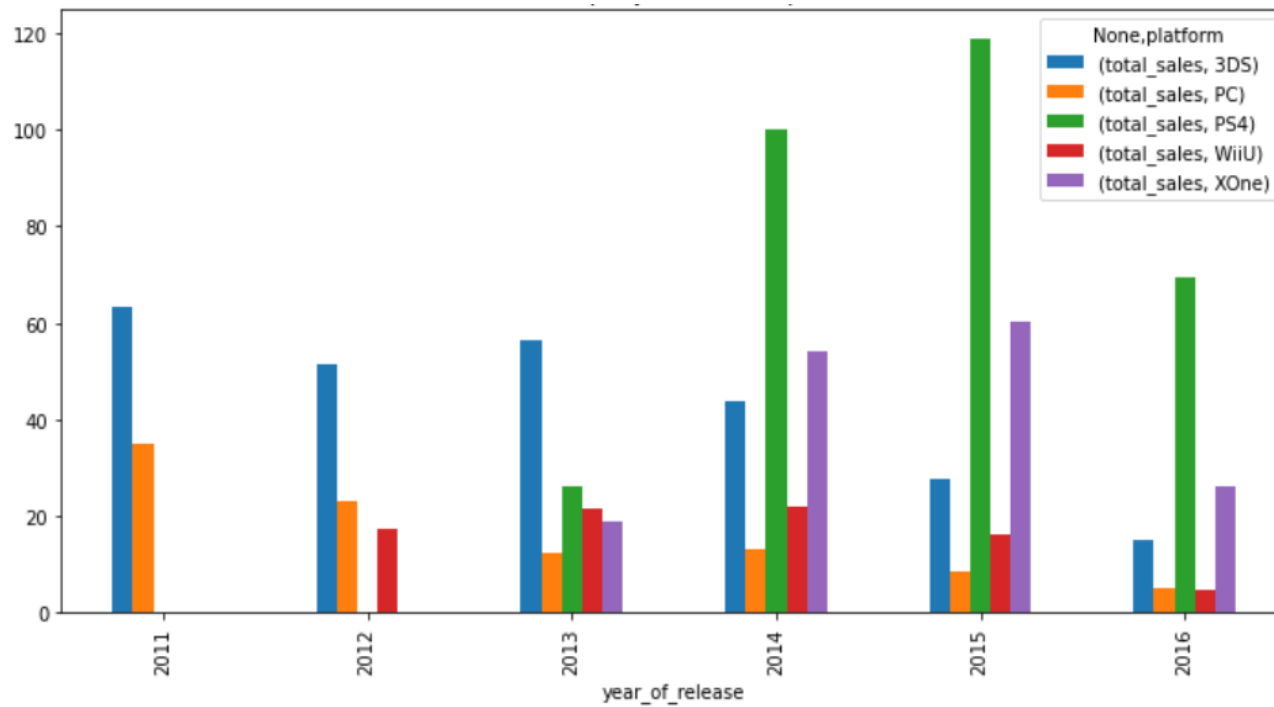
Therefore for our prediction I will use data from 2010 for leading platforms or just released ones.
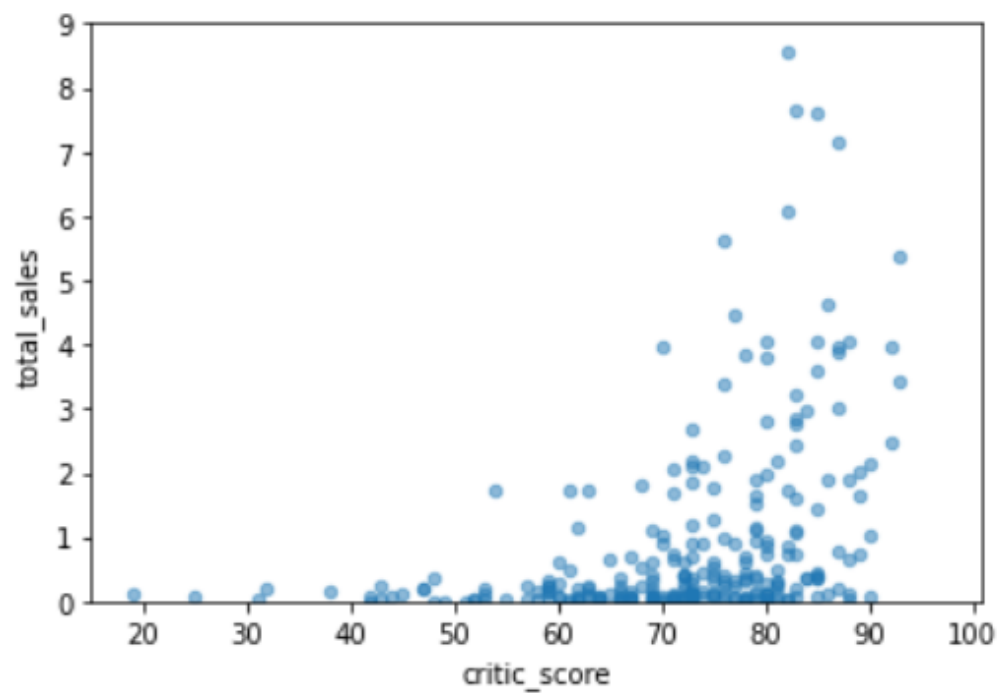
Leading platforms in terms of sales (2010- 2016)

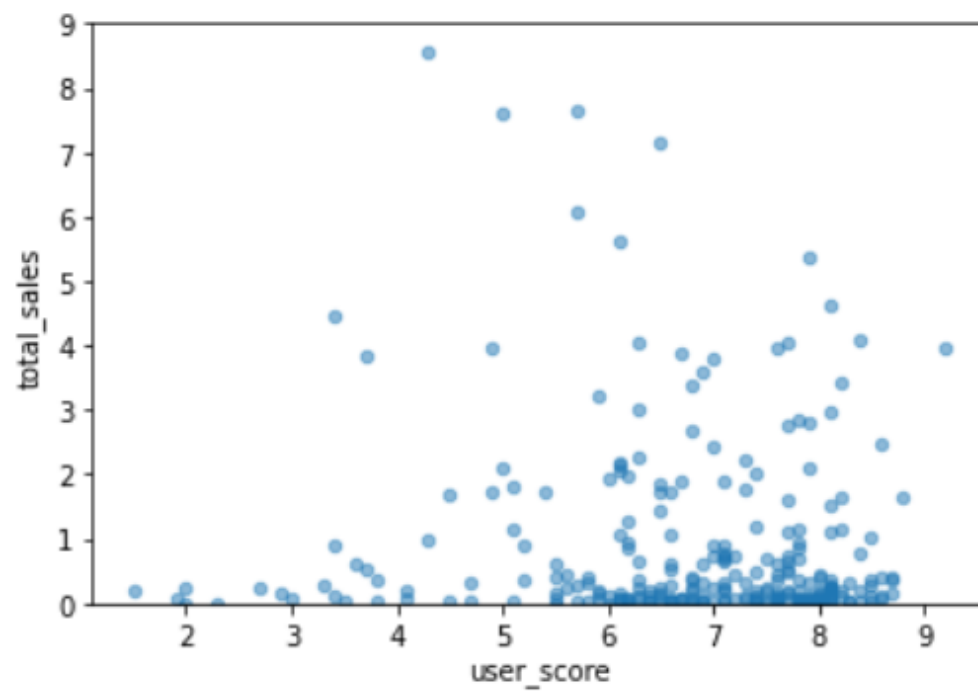| platform	total_sales
PS4	314.14
3DS	257.81
XOne	159.32
PC	97.68
WiiU	82.19
PSV	53.81
DS	38.73
PS2	0.45

Leading platforms by year (sales):

Impact of reviews on total sales.

Professional review

User's review

User profile for each region.

Top five genres.
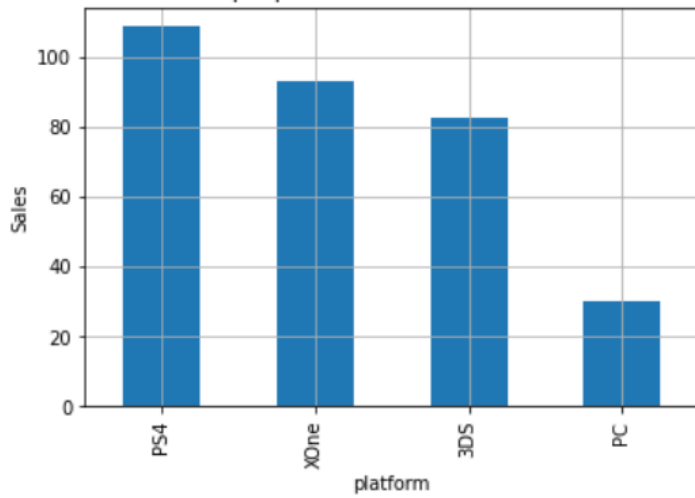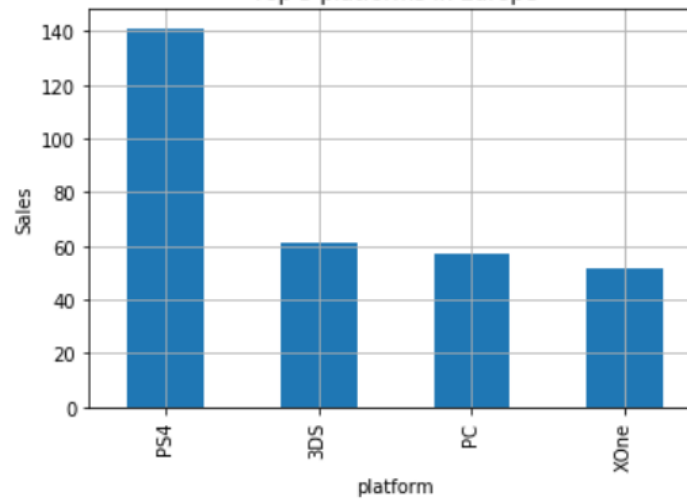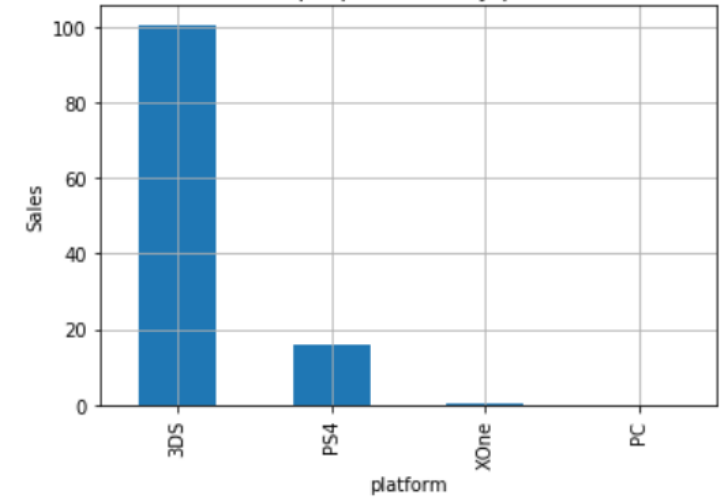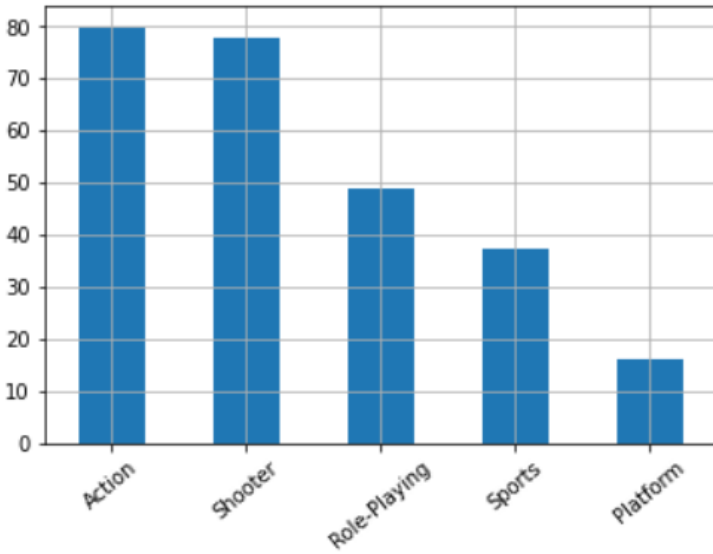
Testing hypotheses.
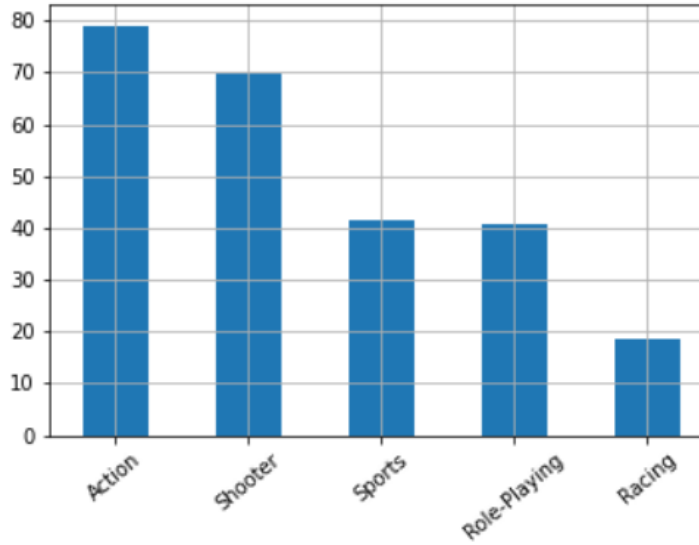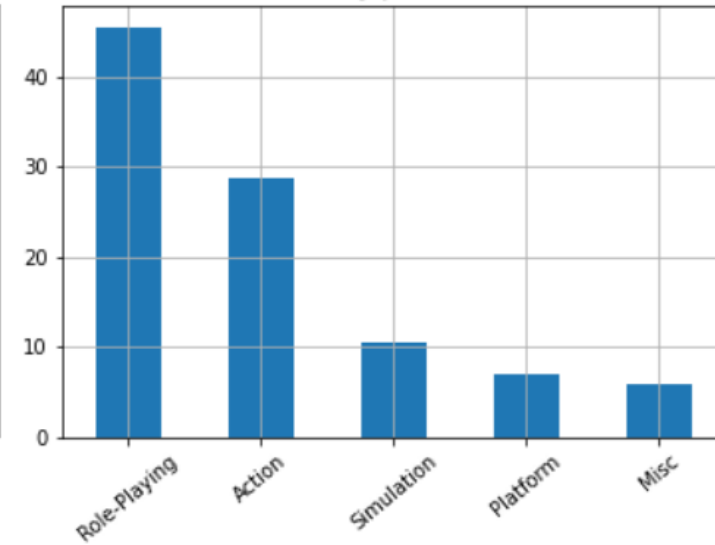
1. Average user ratings of the Xbox One and PC platforms are the same.

In this test two sided t-test for two independent samples was used, with alpha value 0.05

H0 There is no difference in rating for Xbox One and PC

H1 Xbox One and PC have different rating

According to results, we are getting p-value 0.6, which will not allow us to reject null hypothesis .

2. Average user ratings for the Action and Sports genres are different.

Same t-test was used, alpha = 0.05

H0 No differences between average user rating for Action and Sport games.

H1 Average user rating is different for two genres.

As an output we are getting a really small p-value, therefore we can reject the null hypothesis and conclude that average is different.