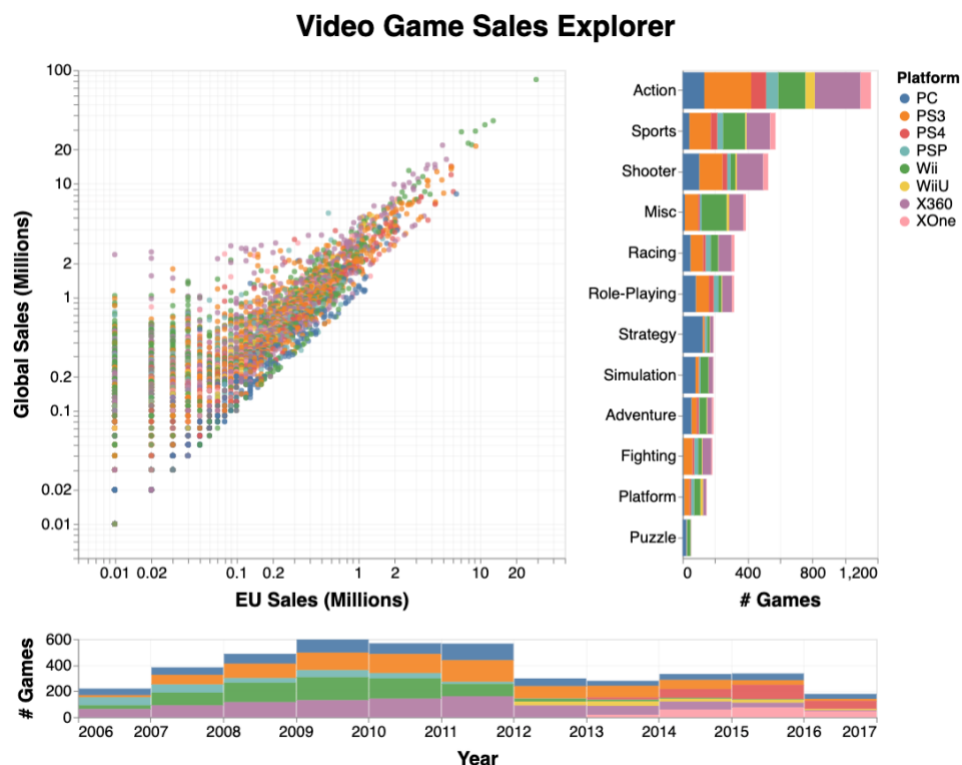# Information Visualisation

## Dashboard Assignment (20% of grade)

The goal of this assignment is to create an interactive 'dashboard' style visualisation to enable analysis and exploration of a dataset related to video game sales. The end result should look like the below:

This visualisation contains three linked charts that interact with each other – a scatter plot and two bar charts.

The scatterplot shows each games' sales in the EU and Global Sales. Note that I am using log axes. Each point is coloured according to the Platform the game was released on. Hovering over an individual point should provide a tooltip containing the game name. It should be possible to use a brush select to select a region on the scatterplot as illustrated below. This selection should update the contents of the other two charts to only count games within the selected region.

Video Game Sales Explorer
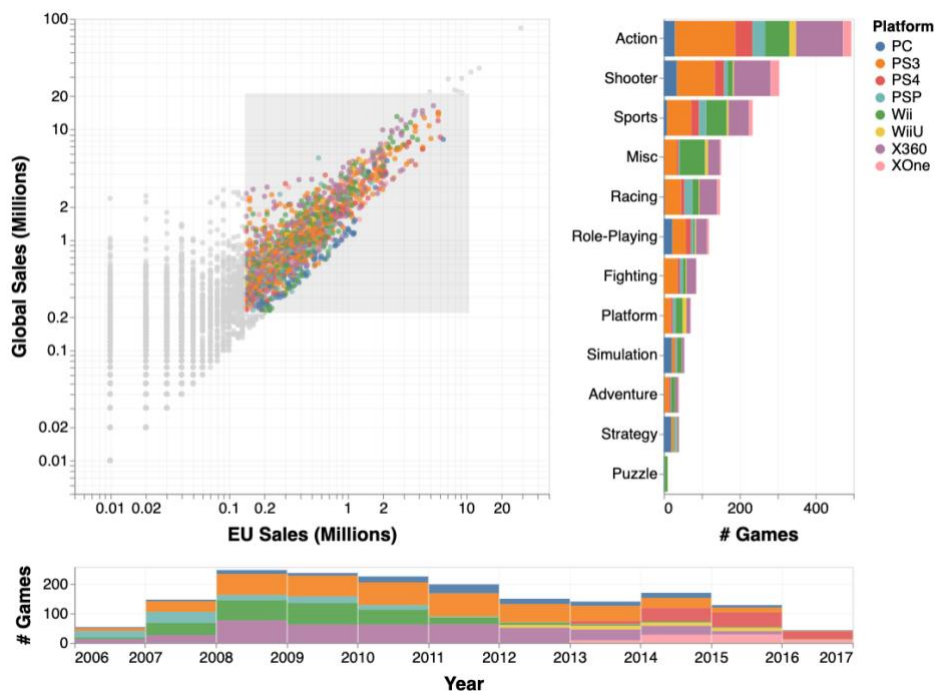
Similarly it should be possible to only select games from selected platforms and this should update the other charts, as in the below where 'PSP' has been selected using an interactive legend:


Video Game Sales Explorer
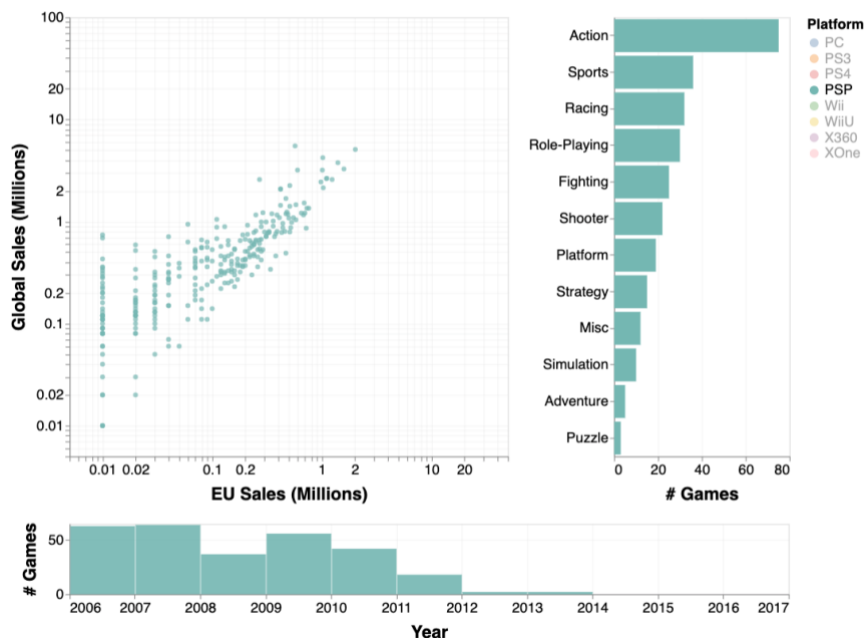
The bar chart on the right shows the total number of games in each Genre. Clicking on a Genre on the bar chart should filter the scatterplot on the left so that only the games from that Genre are shown. This should also update the bar chart on the bottom of the image, e.g. selecting Racing in the bar chart should update the visualisation as below:

Video Game Sales Explorer
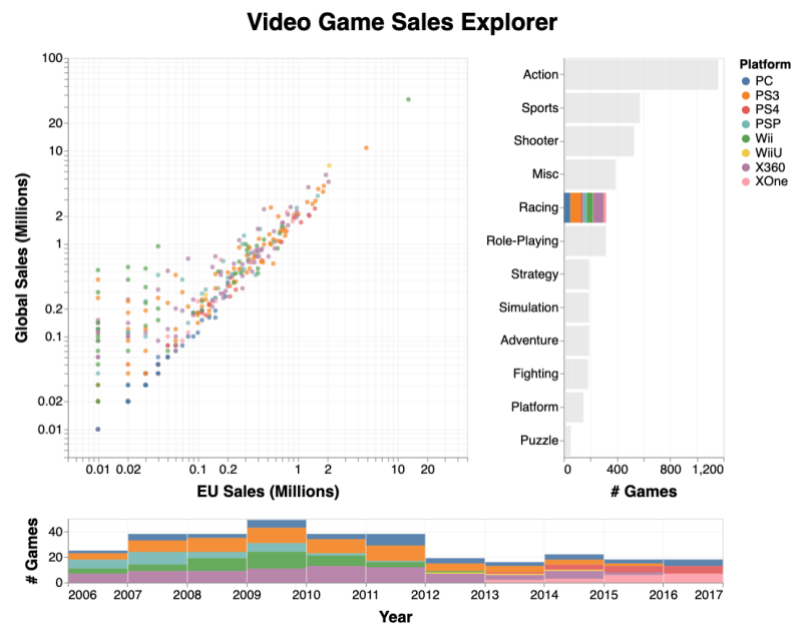
It should be possible to select multiple Genres using the bar chart as below:

Video Game Sales Explorer
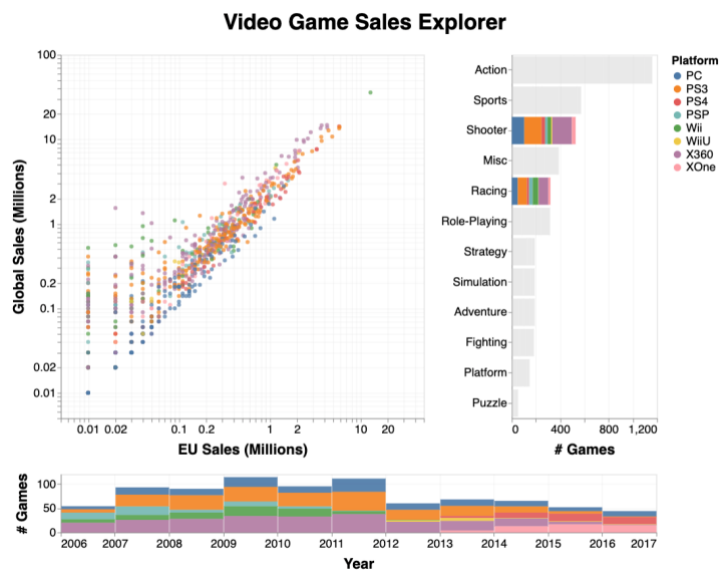
The chart at the bottom of the image is a bar chart that shows the total number of games released each year. It should be possible to do a brush select on this chart to select games released within a certain time period. This select should update the contents of the other two charts, i.e. hiding the games that were released outside the selected range from the scatterplot and updating the genre bar chart to only count games that have a release date within the selected range.

Video Game Sales Explorer
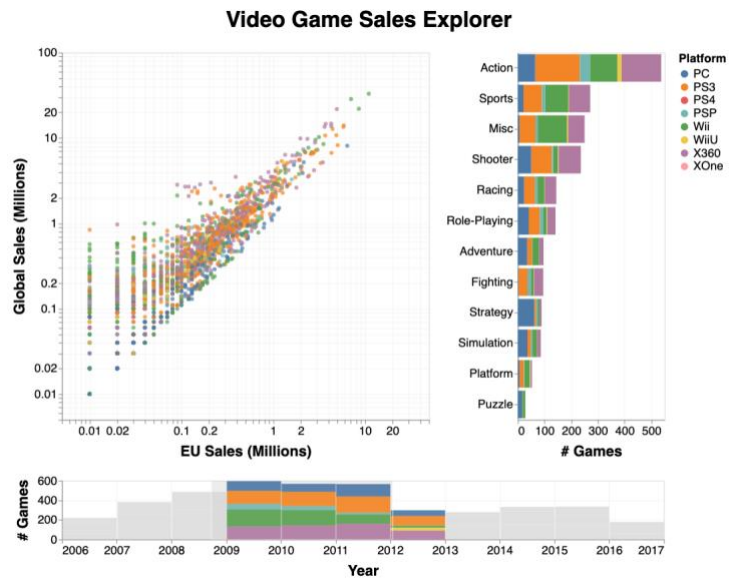
It should be possible to use all interactions together – e.g. to select games from the Action genre that were released on PC, that were released after 2013, and that fall within a specific section of the scatterplot:

Video Game Sales Explorer
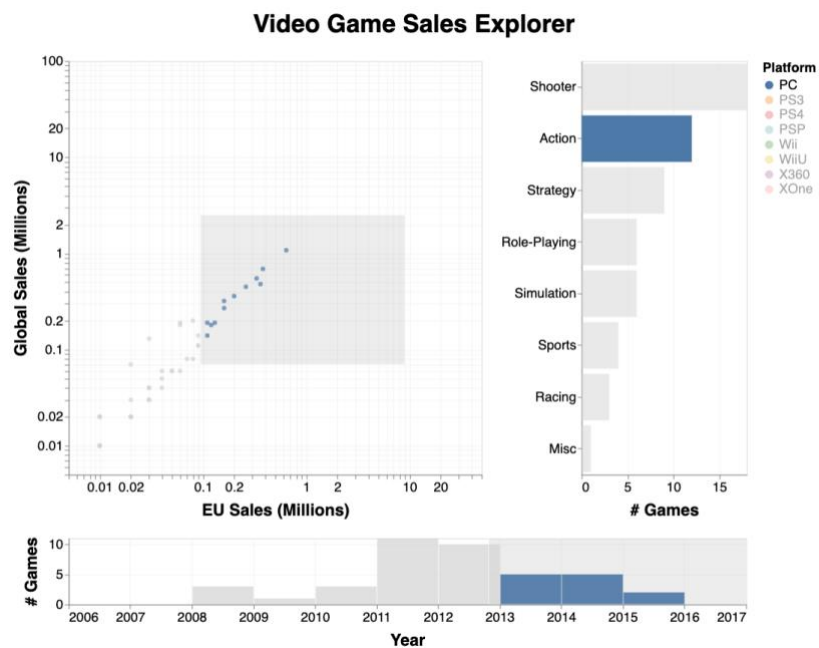
A video demonstrating all of the interactive features is available on Brightspace.

The Video Game dataset is adapted from a dataset available through Kaggle. Note that this dataset has been filtered and cleaned for the purpose of this visualisation.

The visualisation is designed to use much of the Vega-Lite functionality we have learned in class including view composition (e.g. hconcat, layer), interactions and selections.

Marks will be given for correct implementation of each individual chart (the scatterplot, bar chart and strip chart) along with the correct coordinated interaction between them. Mark breakdown is as follows:

Scatterplot 20%
Genre Bar Chart 20%
Year Bar Chart 20%
Interaction & Coordination 40%

Please submit a single json file containing your Vega-Lite specification.

The filename should include your name and student number – e.g. ColmRyan_1234_dashboard.vl.json

Should you need to wish to add a text explanation of any limitations please do so in the specification using the 'description' property.