Matplotlib Overview

Installation :-

The best way to install it by using pip command:

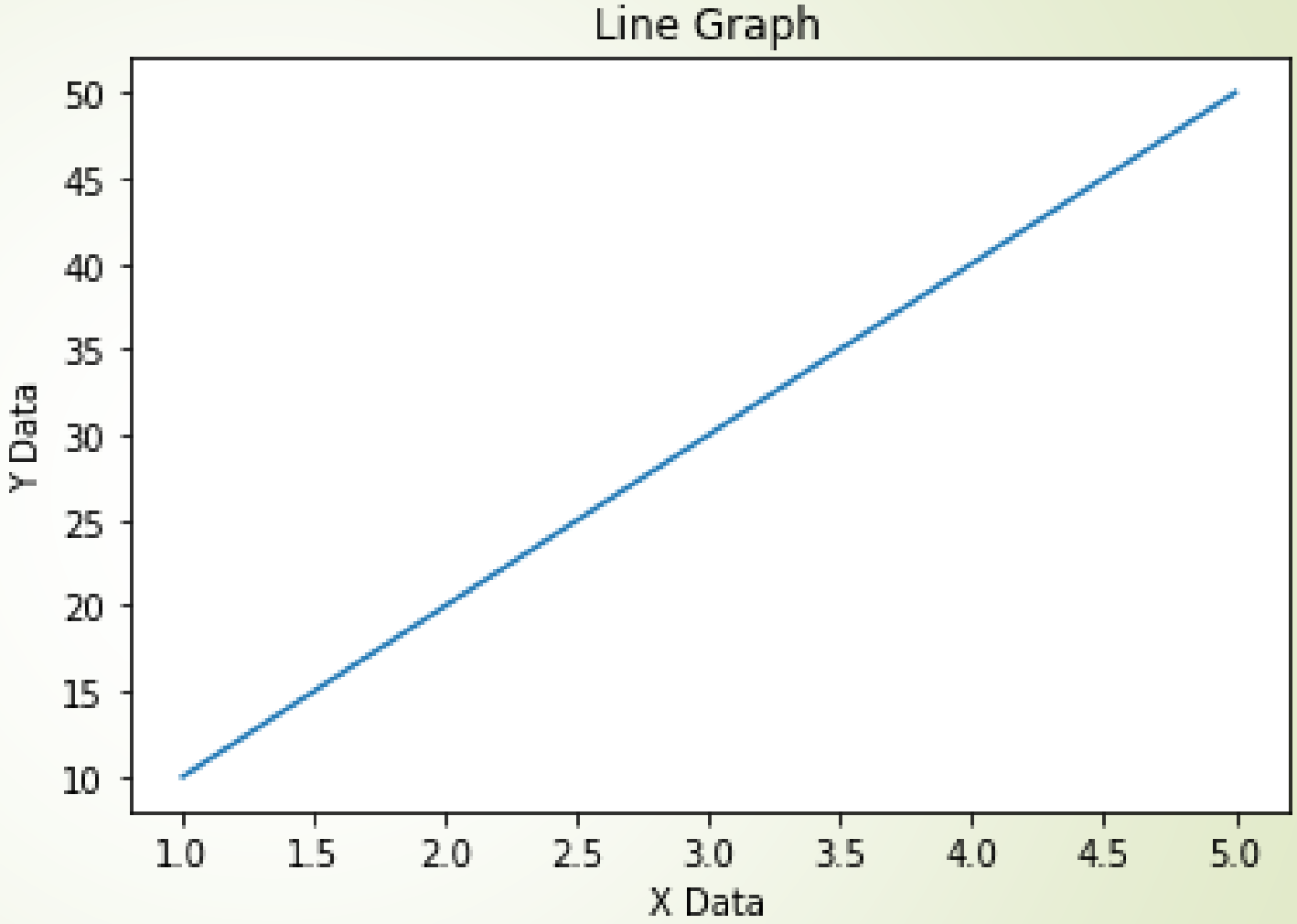
pip install matplotlib

Line Chart :-

"A line chart or line graph is a type of chart which displays information as a series of data points called 'markers' connected by straight line segments."

Line graphs are usually used to find relationship between two data sets on different axis; for instance X, Y.

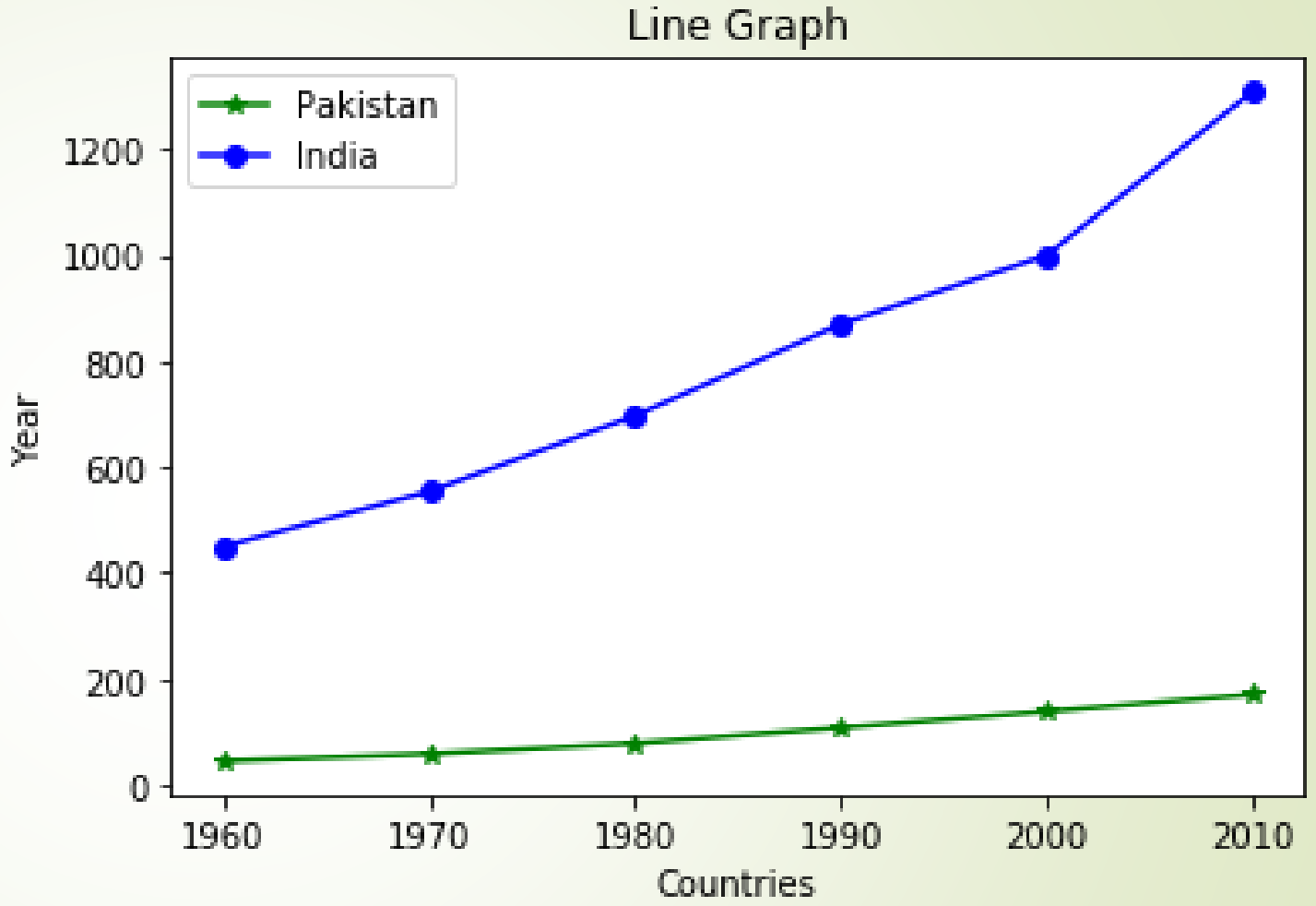
X = [1,2,3,4,5]
Y = [10,20,30,40,50]



year = [1960, 1970, 1980, 1990, 2000, 2010]

pakistanPopulation = [44.91, 58.09, 78.07, 107.7, 138.5, 170.6]

indiaPopulation = [449.48, 553.57, 696.783, 870.133, 1000.4, 1309.1]



Pie Chart :-

"***A Pie Chart*** *is a circular statistical graphic which is divided into slices to illustrate numerical proportion*"

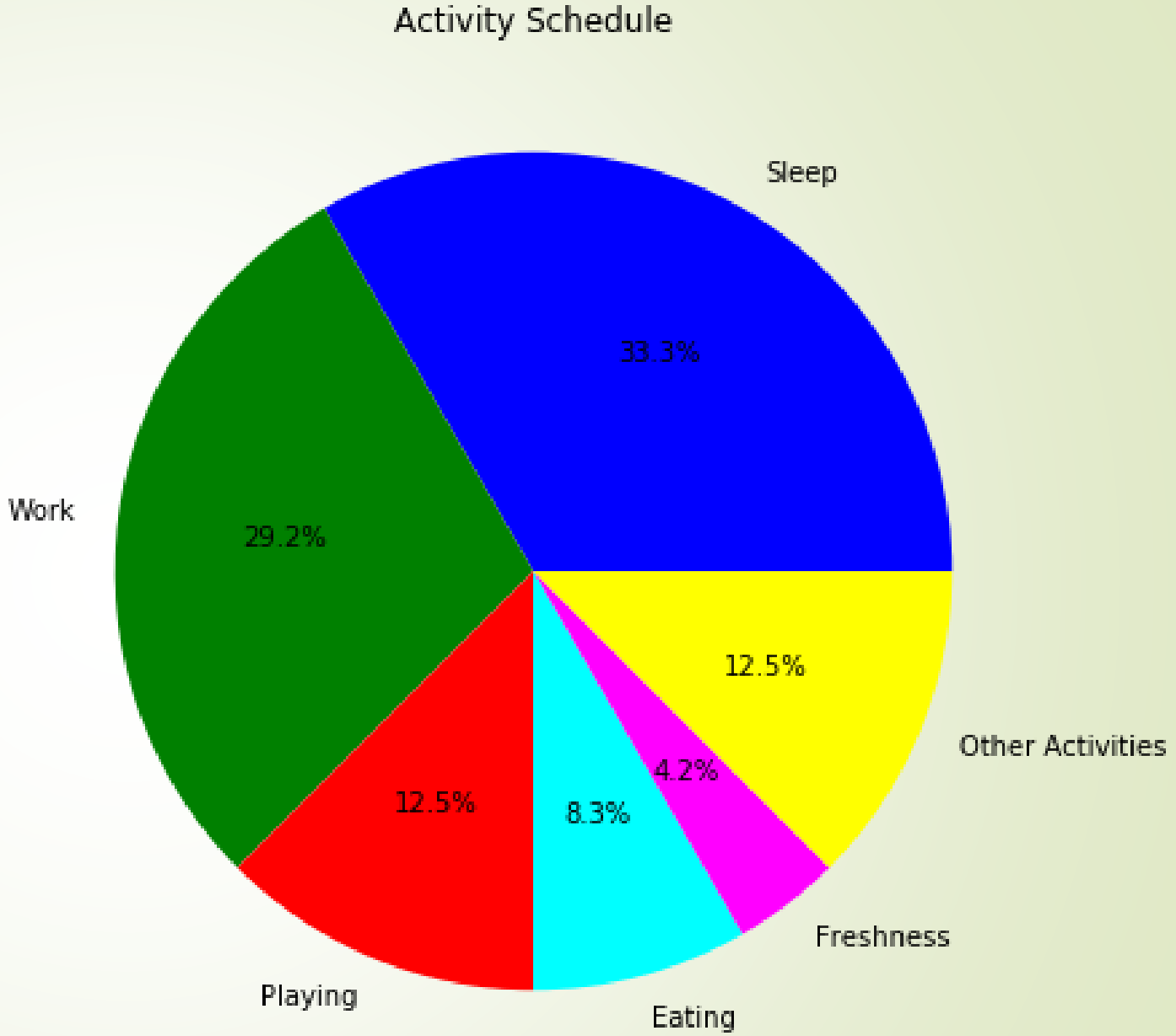
Pie charts are good to show proportional data of different categories and figures are usually in percentages here.

hours =

[8,7,3,2,1,3]

activities =

["Sleep","Work","Playing","Eating",
"Freshness","Other Activities"]



Bar Chart :-

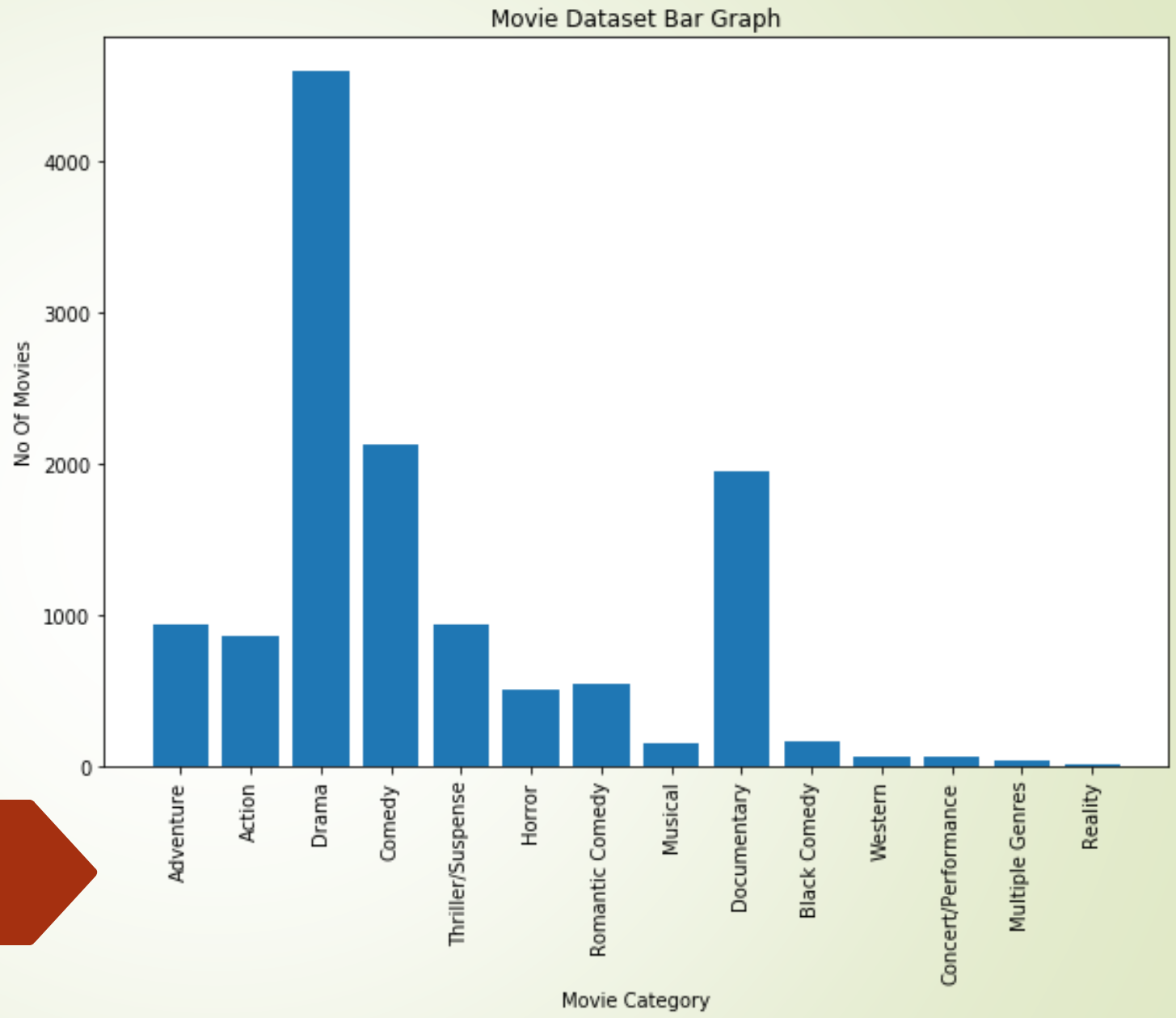
*"A **bar chart** or **bar graph** is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent."*

The bars can be plotted vertically or horizontally.

Vertical Bar Graph

X = ['Movie Category'']

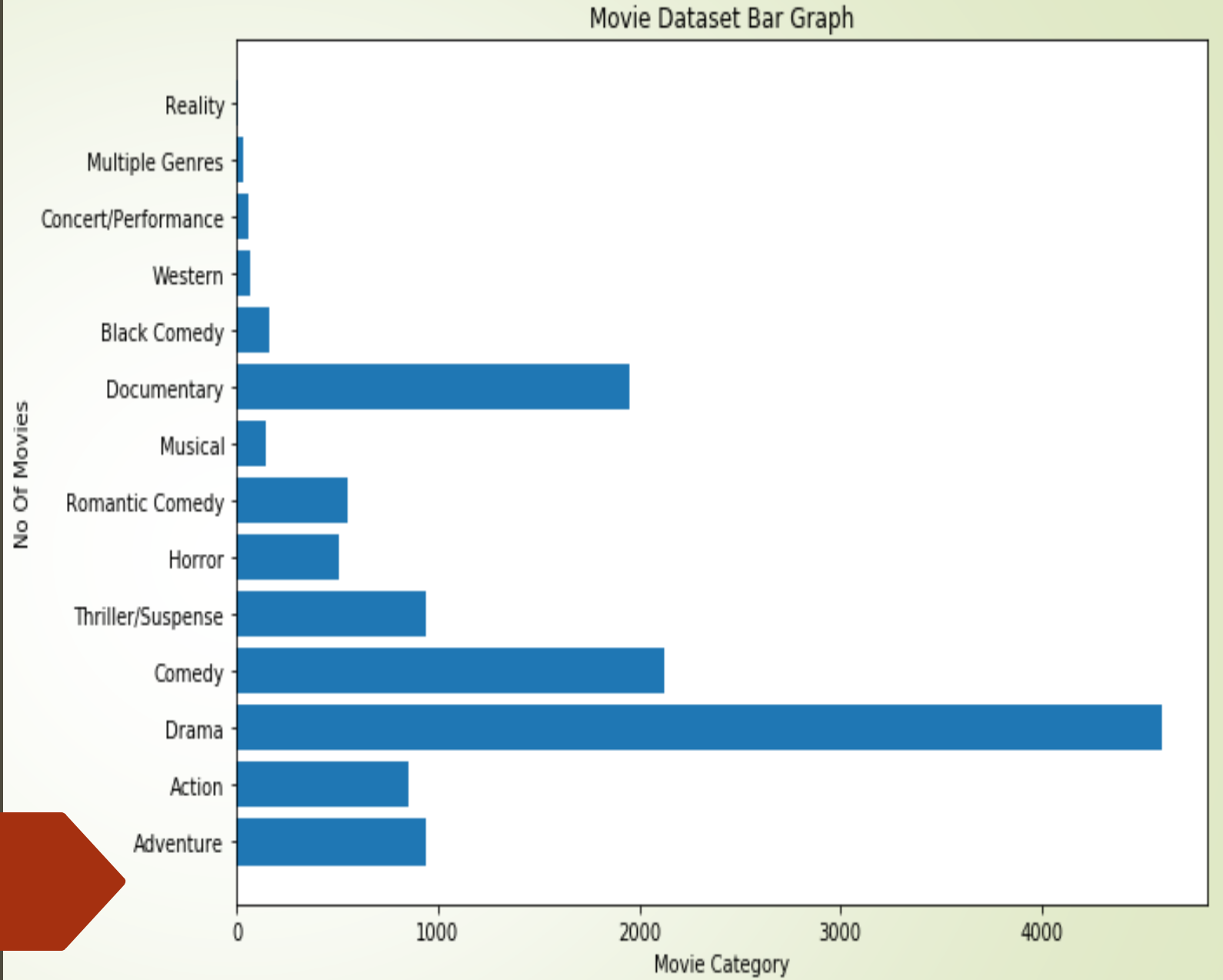
Y = [''No Of Movies'']



Horizontal Bar Graph

X = ['Movie Category'']

Y = [''No Of Movies'']



Ploting Mathematical Function

Y = X2