

Best Universities in the United Kingdom

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Abstract:

This report explores the distribution of world university rankings and student satisfaction scores across universities in the UK. Statistical analysis and data visualizations including a histogram, scatterplot, heatmap, and box plot are used to examine the characteristics and relationships between these two key variables. The analysis provides insights into the landscape of UK higher education institutions and how world rank correlates with other performance measures like student satisfaction. Further investigation of the drivers behind university ranking and satisfaction could inform efforts to improve education quality.

Github:

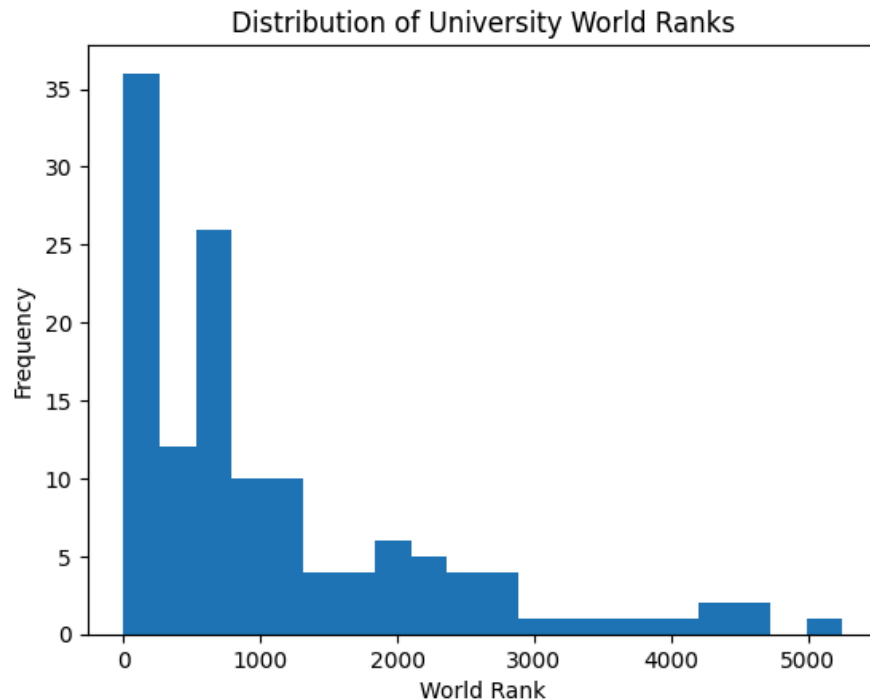
<https://github.com/maari119/Assignment-2>

Dataset:

<https://www.kaggle.com/datasets/mayureshkoli/best-universities-in-the-united-kingdom>

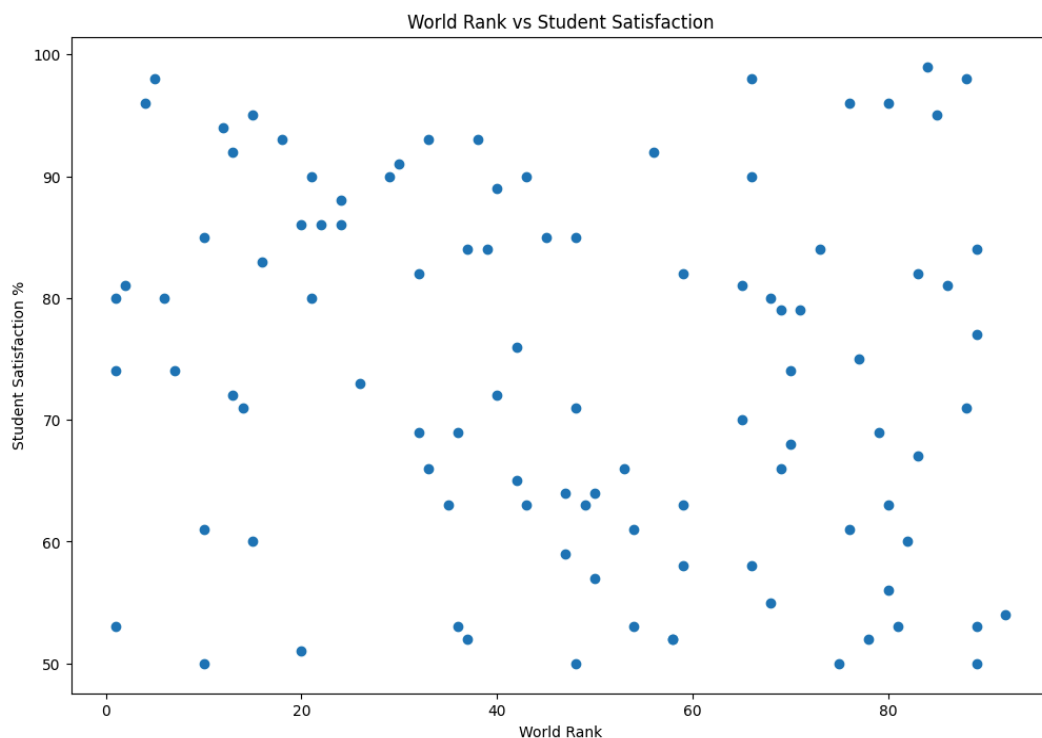
This dataset provides information on the top universities in the United Kingdom. The data is gathered from web scraping three websites. That includes details like university names, regions, founding years, mottos, and rankings. It also covers aspects like minimum IELTS scores, average tuition fees, student demographics, staff counts and estimated living costs. There are 21 variables in total in this dataset that offers a comprehensive overview of these prestigious universities of the UK.

Bar Chart:

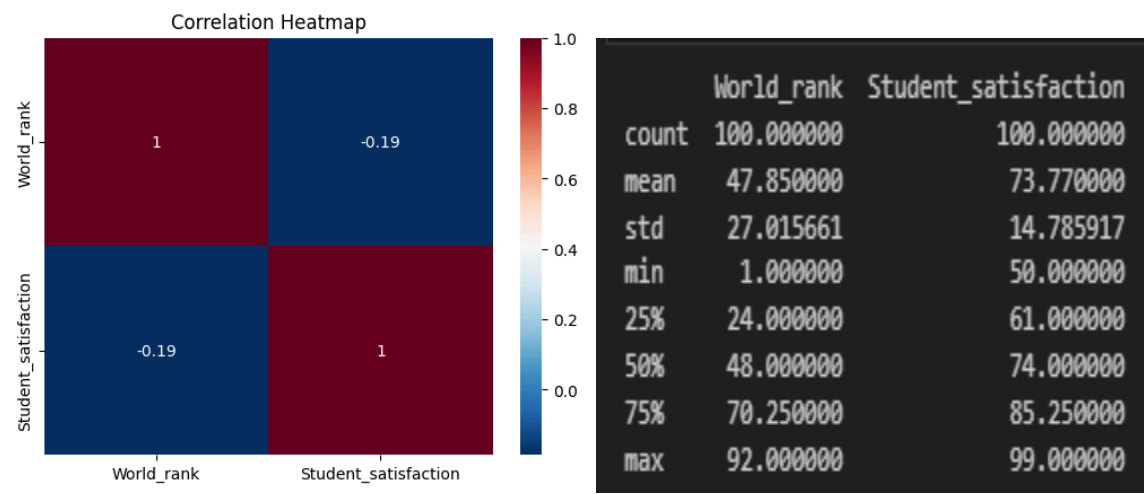


The bar chart helps us in easily understanding the spread of the data or we can say the frequency. The bar chart here tells us that the UK has the best universities in the world. As we can see from the visualization that the bar chart is skewed to the left and the frequency there is greater than the frequency at the bottom of world rank. From this we can deduce that the UK mostly has top ranked universities in the world according to the dataset used here.

Scatter Plot



Descriptive Statistics:



The box plot visualization and summary statistics provide useful insights into the distribution of university world ranks and student satisfaction scores. The world ranks have a wide spread with a mean of 47.85 and standard deviation of 27.02. The minimum rank is 1 and maximum is 92 which shows there is a broad range of prestige levels. The 25th percentile is 24 and 75th percentile is 70.25 that tells us that the most schools fall in the 24-70 rank range. The box plot shows some outliers on the lower end of the distribution. The mean score is 73.77% with a standard deviation of 14.79 for the variable student satisfaction. The minimum satisfaction is 50% while the maximum is 100%. The 25th and 75th percentiles of 61% and 85.25% show that most schools have scores concentrated between 61-85%. The analysis indicates variability in world rank prestige but less variability in student satisfaction scores across UK universities. Comparing the two measures could provide insights into how rank correlates with satisfaction.

