Applied data science-1

Visualisation

Table of Contents

Contents

Introduction.

Data visualization is nothing but a graphical representation of the information and data in an easy-to-read format. In visualization, we will transform a large amount of data into visual contexts such as a map or chart to make data easier for the human brain to understand and derive insights from.

1.0 Data sets

- Meat consumption:

  Living standards, nutrition, animal production, consumer prices, macroeconomic unpredictability, and GDP shocks are all tied to meat consumption. Demand for meat is correlated with increased wages and a shift in food consumption that favours more animal protein in the diet as a result of urbanisation. Although the worldwide meat industry provides food and a means of subsistence for billions of people, it also has a substantial negative influence on the planet's environment and health. This indicator is provided for pork, poultry, sheep, beef, and veal.

  This is a detailed look at how much meat was consumed in each country between 1990 and 2021, broken down by meat type and quantity.

meat_consumption.csv

- Recent Grads:

  Every year many students graduate from a university. This dataset contains information on the number of students enrolled in different majors over the course of two years, as well as information on students' employment after graduation. The American Community Survey 2010-2012 Public Use Microdata Series is the source of all information.

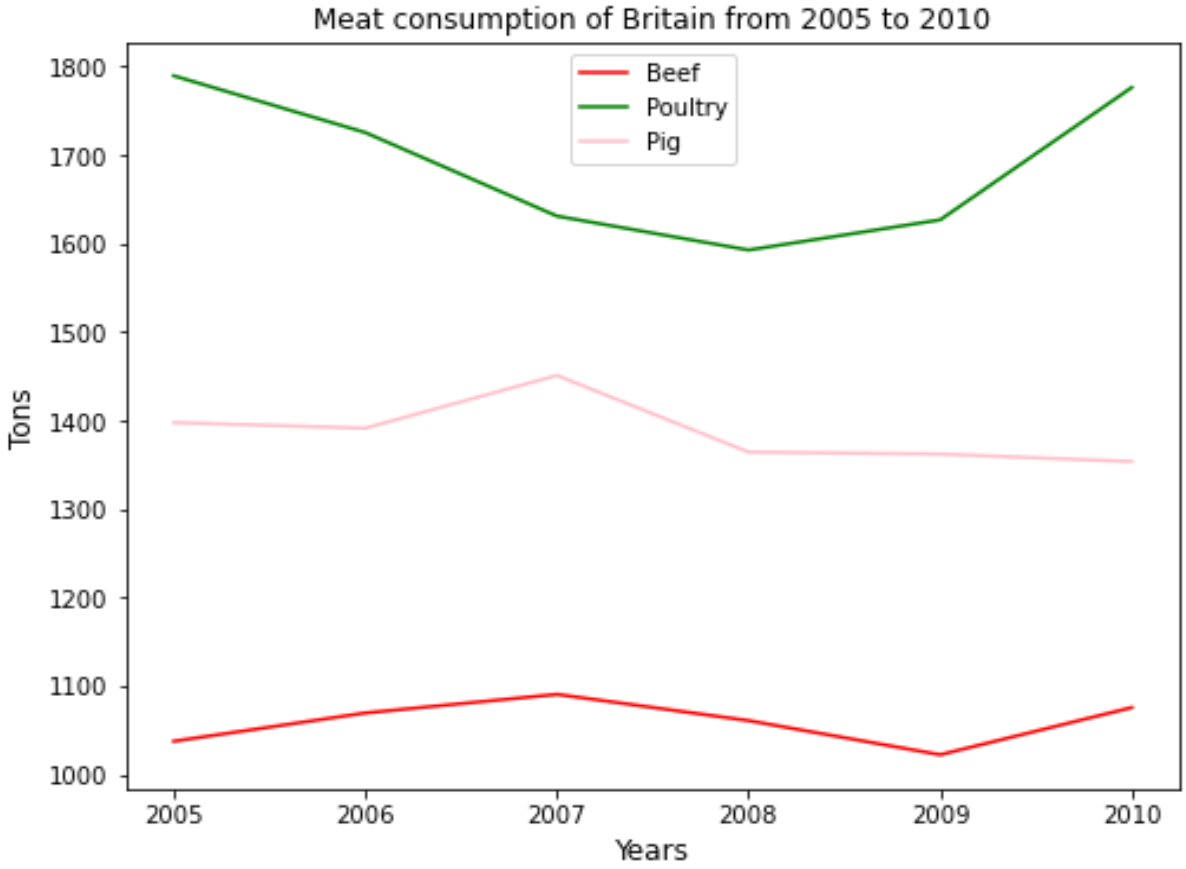
recent-grads.csv

Problem statement.

- Analysis of the Beef, Pork, and Poultry Meat Consumption from the Years 2005 to 2010
- In a graduating class, the proportion of students in a specific course at a university was determined using 2-year data.
- Analysis of the university major graduate who was employed and unemployed after graduation

Solutions.

1. Analysis of Meat consumption



Above line graph shows the result meat consumption in Great Britain from the year 2005 to 2010.

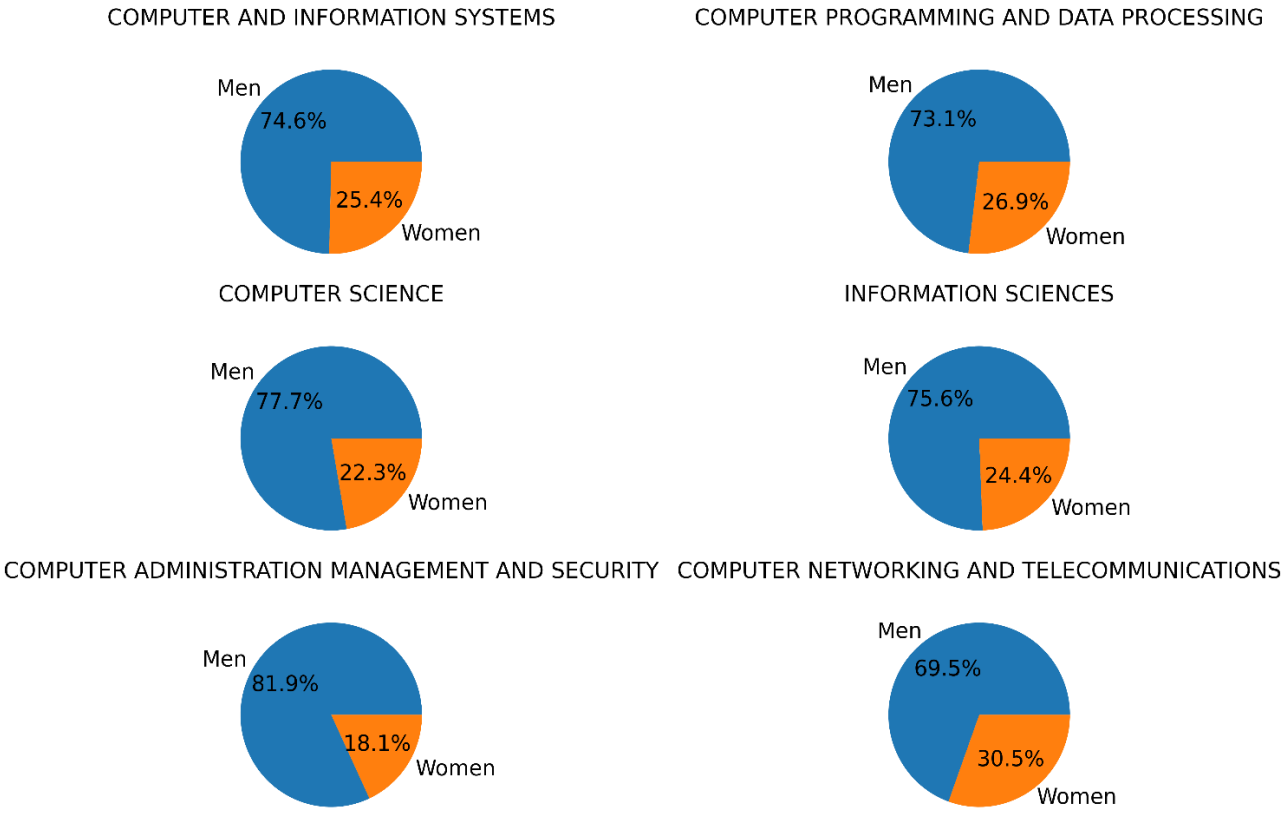
Throughout the entire year, poultry has been extensively consumed at certain times. Poultry meat consumption peaked in 2005 at 1800 tons/year, then steadily decreased until 2008 at 1600 tons/year. However, between 2008 and 2009, when meat consumption increased to 1650 tons/year, it began to increase again. From 2009 to 2010, poultry meat consumption increased quickly to 1790 tons/year. By the end of 2010, consumption of poultry meat was almost equal to that in 2005.

The consumption of pig meat, on the other hand, will come in second with 1400 tons/year, and it was slightly reduced in 2006 before increasing quickly in 2007 and reaching a peak of 1500 tons/year. In 2008, there is a significant decline in pig consumption below 1400 tons/year, which is even lower than in 2005. Pig meat consumption will continue to decline until 2010.

Last but not least, with an estimated annual consumption of 1500 tons/year, beef is the least popular sort of meat in 2005. After 2005 At 2007 when consumption peaked at 1100 tons/year and then declined to about 1000 tons/year, there was a sharp surge in people's intake of beef meat, which now accounts for more than 1100 tons/year.

We can conclude from the analysis that there is no difference between the consumption of poultry meat and that between the years 2005 and 2010, there was a decline in the consumption of pig meat and an increase in the consumption of beef meat.

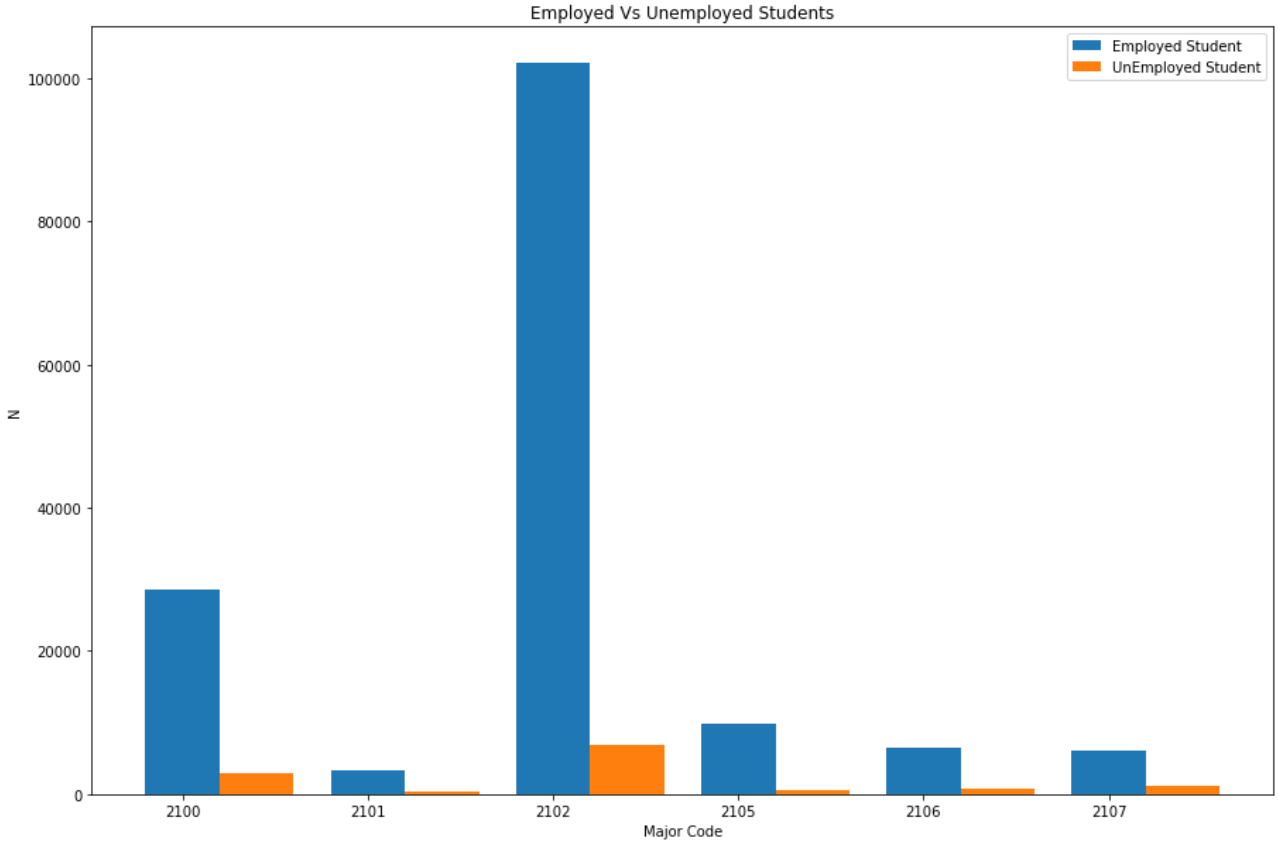
2. Analysis of gender proportions in majors



The amount of male and female students in a certain university major is shown in the pie chart above. Male and female students correspondingly make up 74.6% and 25.4% of the class in computer and information systems. Students studying computer programming and data processing are 73.1% male and 26.9% female. Student enrolment in computer science is 22.3% female and 77.7% male. In information science, there are correspondingly 24.4% and 75.6% male and female students. 81.9% of the students studying computer administration management, and security are men, and 18.1% are women. 69.5% of the students studying computer networking and telecommunication are men, and 35% are women.

Overall, there are more male students in the major than female students. As shown According to the graphic chart above, computer networking and telecommunications majors are well-known among female students and majors in management and security are well-known among male students.

3. Analysis of employment of graduated student from each major



Major code	Major
2100	COMPUTER AND INFORMATION SYSTEMS
2101	COMPUTER PROGRAMMING AND DATA PROCESSING
2102	COMPUTER SCIENCE
2105	INFORMATION SCIENCES
2106	COMPUTER ADMINISTRATION MANAGEMENT AND SECURITY
2107	COMPUTER NETWORKING AND TELECOMMUNICATIONS

In the graph above, the employment and unemployment rates for each university major are displayed so that you may better comprehend the employment ratio.

Computer science is in first place since it has the most employed students, followed by computer and information systems in second place and information science in third. With nearly identical numbers of student placements, computer networking and administration take fourth and fourth place, respectively. Data processing and computer programming are last.

According to the unemployment rate, all majors have higher employment rates than unemployed students, thus we may infer that the number of unemployed students is minimal.

Finally, we can state that majors in computer science and computer and information systems are highly advantageous for a student's employability after graduation.