Preliminary Report

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1 Topic

The main topic of our final project will be about digitalization in the European Union countries, more precisely we want to analyze three aspects:

1. **The level of access to the internet**: how many have access to the internet, with which devices and how this percentage has changed over time.

2. **Internet uses**: how often people use the internet, for what purposes, negative experiences of users, to then do a more in-depth analysis for some sectors such as e-commerce and financial activities.

3. **Digital skills**: the skills that people have in using the internet, the number of people who have ICT education divided by sex, age and educational attainment level.

2 Datasets

Digitalization datasets

- Internet access section:
    - Households - level of internet access
    - Households - type of connection to the internet
    - Households - devices to access the internet
    - Households - reasons for not having internet access at home
- Frequency and use type of internet:
    - Individuals - frequency of internet use
    - Individuals - internet activities
    - Individuals - encountering hostile or degrading online messages
    - Internet purchases by individuals
    - Financial activities over the internet
- Digital skill
    - Individuals' level of digital skills
    - ICT specialist in employment (by sex, age and educational attainment level)

3 Charts type

In detail these are the graphs that we would like to use divided by topic:

1. **Internet Access Level**

   - Two views: a bar chart and a map for people who have access to the internet.

   - A line chart showing the change over time for people who have never used the internet.

   - A stacked bar chart with the types of devices used.

   - An area chart to show how the reasons on why people do not have access to the internet changes over time.
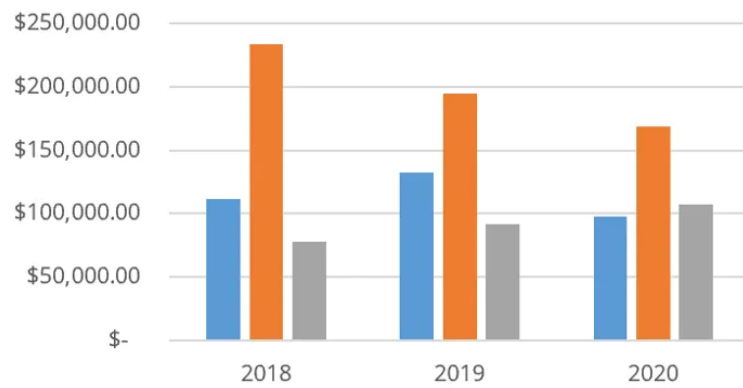
2. **Uses of the Internet**

   - A line chart showing how the percentage of individuals using the internet daily or at least once a week varies over time.

   - An alluvial/stacked bar chart depicting how people use the internet.

   - Faceted bar chart for Data on individuals encountering hostile or degrading messages online, focus on age groups (data of 2023).

   - Grouped bar chart to show how the percentage of people who have made online purchases changes over the year for different age group, with filtering options based on the last purchase date.

   - Line/Bubble chart to show how Financial activities over the internet increase over the years divided by education level.

3. **Digital Skills**

   - Two views: a bar chart to compare Individuals' level of digital skills between countries and a line chart to see how this percentage change over the time.

   - Stacked bar chart to show the percentage of males and females employed with ICT education (A line/area chart can be added to show how this percentage varies over time).

   - Stacked bar chart to show the percentage of individuals employed with ICT education that are between two age group (A line/area chart can be added to show how this percentage varies over time).

   - Alluvial chart to see how the employed persons with ICT education are distributed by educational attainment level.
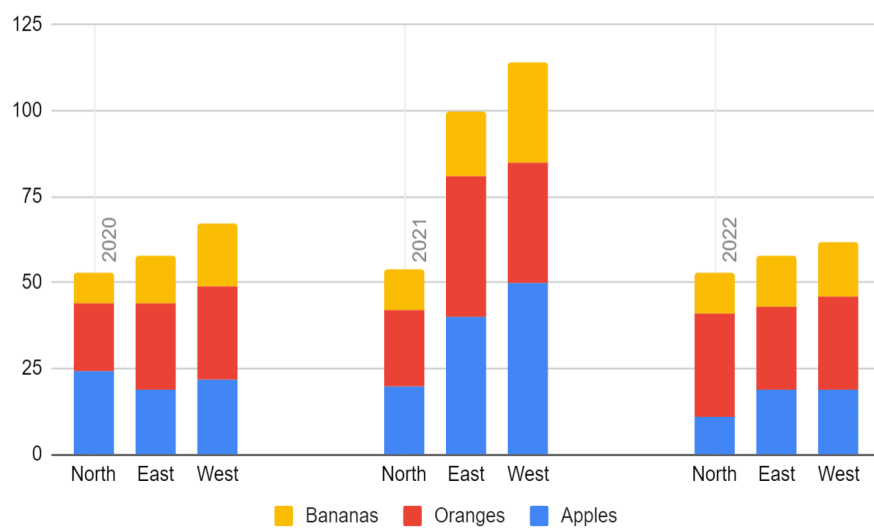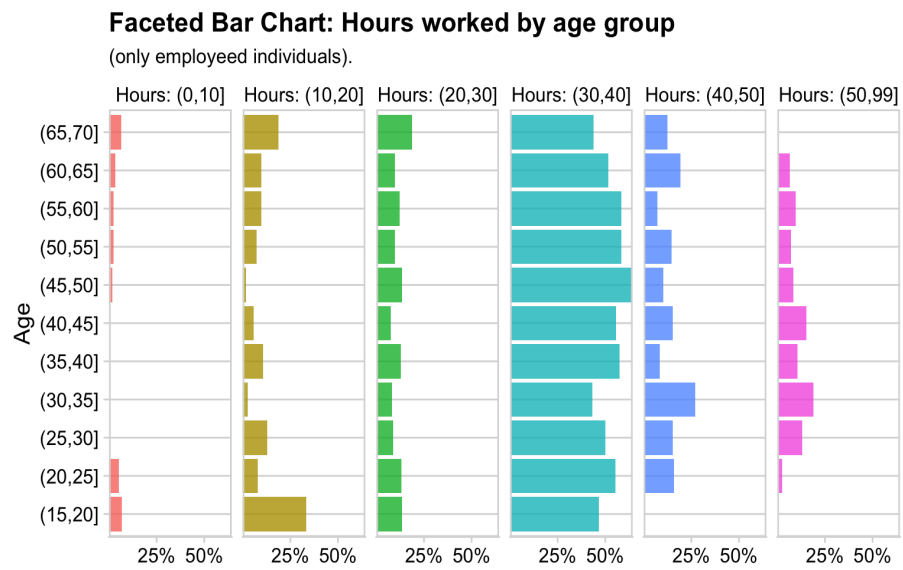
Bar chart

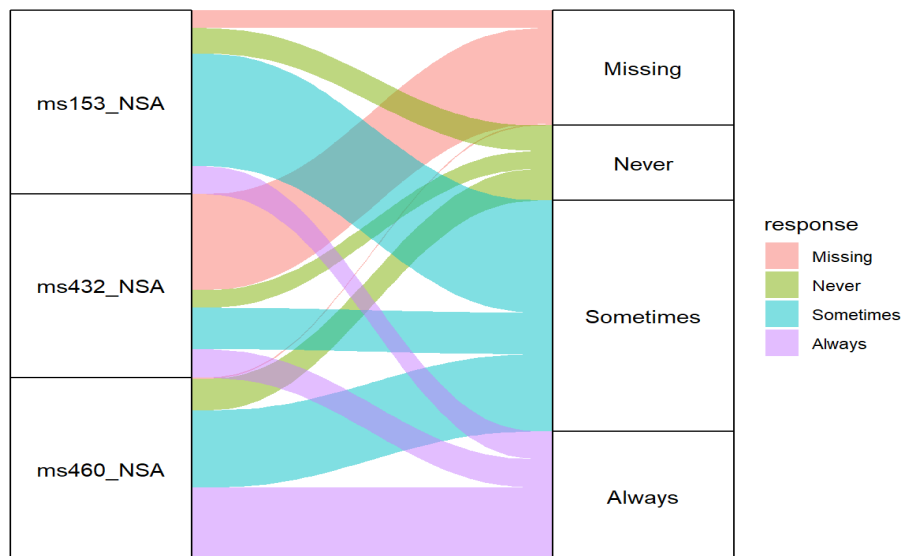**Bar Chart (Data Visualization)**

Stacked Bar Chart

Sales by Store and Year

Faceted Bar Chart

Faceted Bar Chart: Hours worked by age group
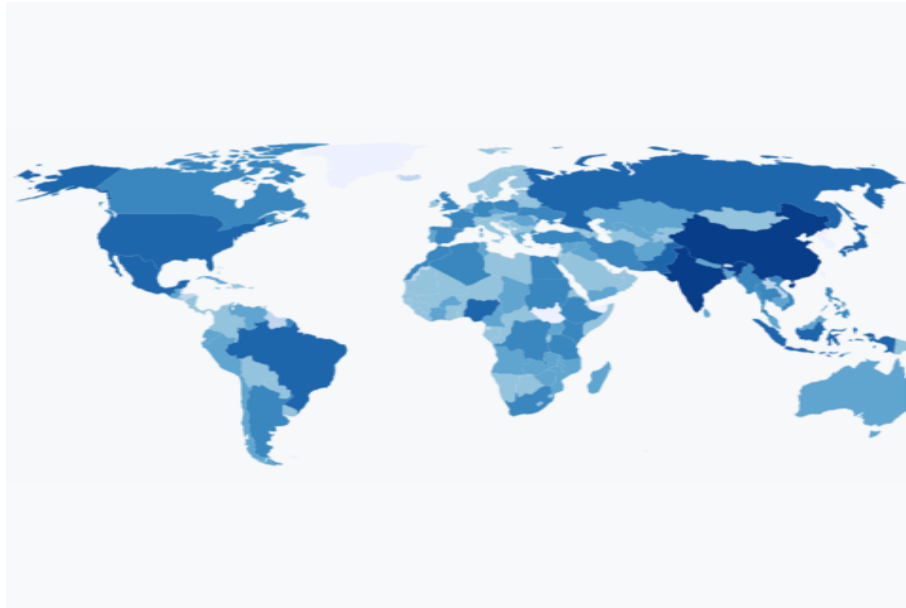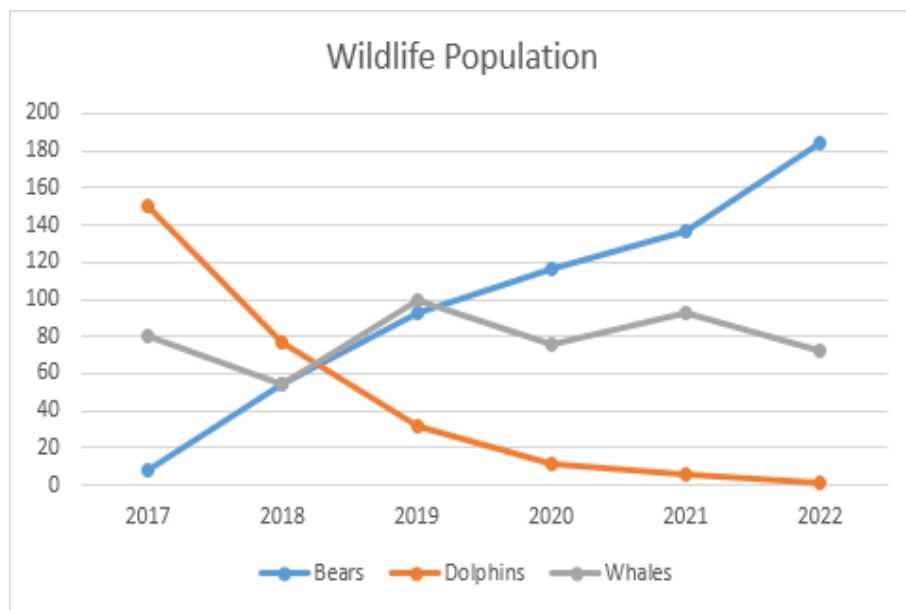
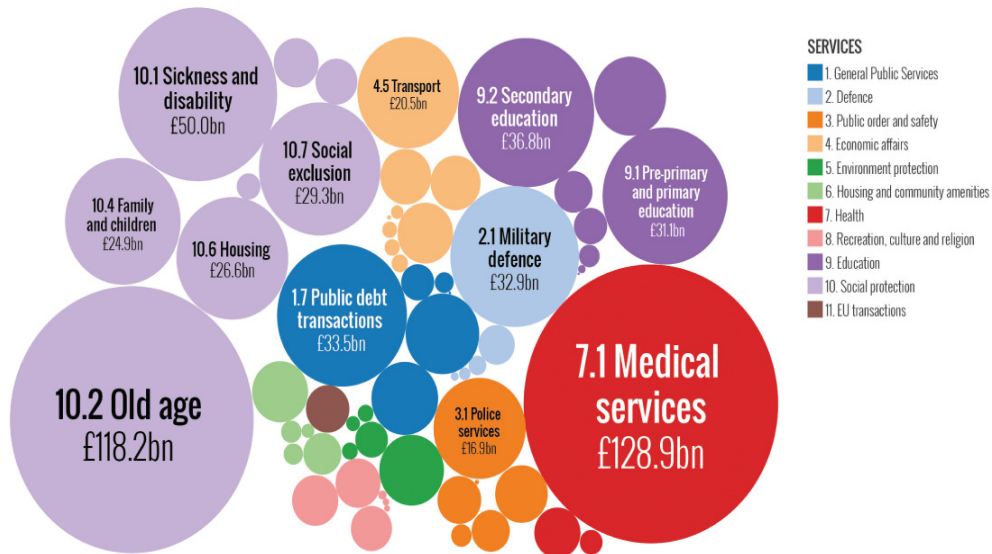(only employed individuals).

Alluvial Chart

Map

Line Chart

Bubble Chart

Analysis of: Public sector capital expenditure (£ million) on services by function of the UK Government during 2014/15
Data from: HM Treasury, 'Public Expenditure Statistical Analyses 2015' https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2015

Area Chart