Coursework 1 – Data Visualisation with Tableau (25%)

Dataset

NCD_RisC dataset on BMI (Body Mass index), Diabetes, and Blood Pressure; Available as the coursework attachment.

Analysis goals:

1. Find a pattern for **one of the measurements**
   a. over time, and/or
   b. across different countries/regions
2. Find a relationship between **two or three measurements**
   a. over time and/or
   b. across different area

Submission

- One **packaged Tableau workbook** (.twbx file) with all the visualisations and the source dataset.
- A separate report (such as a word file) addressing all the marking criteria and explaining / providing justification of the work done
- A short (5min) group presentation outlining the work done, results obtained and analytical insights

Requirements

- Create **two** separate visualisation tasks in Tableau, one for the single-measurement pattern (analysis 1), the other for the multi-measurement pattern (analysis 2).
- Each visualisation can be a work sheet, a dash board, or a story.
  - These need to be named **Finding 1** and **Finding 2**, so they are clearly different from the result of tableau sheets.
- The findings need to be of **different** type.
  - *These two findings are of the same type:*
    - *The obesity level in UK increased from 2000 to 2010, and*
    - *The percentage of population with raised blood pressure decreased from 2000 to 2010.*
- Use Tableau **Annotation** to present/highlight the findings;
- Use a **separate report** to address all the marking criteria

Marking scheme (total 25%)

- Group presentation carries 5% of the mark
- The group report carries the remaining 20% of which there is a total of 10% mark for each finding split as indicated below:

The findings (2%)

- What are the findings;
- The quality of the findings, i.e., how insightful is the finding;

The 'what' (2%)

- What is Dataset type;
- What is the Data type;
- What is the Attribute type.

The 'why' (2%)

- What does the visualisation aim to show
- Describe the ‘Actions’ from all three aspects: ‘Analyse’, ‘Search’, and ‘Query’;
- Describe the ‘Targets’ from both the ‘Data’ and ‘Attribute’ aspect

The 'how' (4%)

- Describe the visual mapping or encoding (2%): What are the marks (point, line, shape, etc.);
    - What are the channels and what attributes are mapped to them (e.g., 'profit' is mapped to size);
    - Include features such as filtering and dashboard if there is any.
- Why are such visual mapping and design effective (2%):
    - Why is the chosen chart type a good fit for the finding (e.g., why bar chart is better than other chart types for this finding)
    - Is the visual mapping/encoding using the most effective visual channels? For example, why showing 'profit' with size is good for the finding?
    - This also applies to features such as filtering and dashboard if there is any.