Power BI Assignment 3

Datasets Overview:

1. Expenditure Dataset: ⊞ Expenditure
Columns:
- country: The name of the country.
- institute_type: Type of institution (e.g., all institutions).
- direct_expenditure_type: The type of expenditure (e.g., public).
- 1995, 2000, 2005, 2009, 2010, 2011: Direct expenditure values for respective years.

 Usage: This dataset provides insights into the public expenditures of
various countries over different years.

2. Data Dataset: ⊞ Data
Columns:
- world_rank: Global ranking of the institution.
- institution: Name of the institution.
- country: Country where the institution is located.
- national_rank: National ranking of the institution.
- quality_of_education: Quality score of education.
- alumni_employment: Alumni employment rank.
- quality_of_faculty: Quality rank of faculty.
- publications, influence, citations, broad_impact, patents: Various impact and research-related metrics.
- score: Overall score.
- year: The year of the ranking.

Usage: This dataset can be used to analyze the performance and
global standing of educational institutions over the years.

Perform the following tasks:

1. Calculate the average public expenditure for the year 2005 across all countries.
2. Calculate the total publications for institutions in the UK
3. Filter the dataset to show only institutions with a world_rank below 100
4. Calculate the total expenditure for all years for each country.
5. Write a DAX formula to ignore any filters on the year column and calculate the total score across all years.
6. Calculate the growth in expenditure for Austria from 1995 to 2000
7. Format the expenditure values to include a currency symbol and zero decimal places.
8. Calculate the total expenditure for each country
9. Create a report showing each visual in different sheets showing the following:
a. Create a decomposition tree that breaks down the total patents of institutions by country and then by quality_of_faculty. Analyze which factors contribute most to the number of patents across different countries.
b. Utilize the Q&A feature in Power BI to create a visual that answers the question: "What is the total publications and citations for institutions in the USA?". Display the results
in a table and bar chart format.
c. Create a Multi-Row Card visual that displays key metrics for the top 5 institutions by world_rank. Include fields such as institution, country, score, and national_rank.
d. Build a Donut Chart to represent the distribution of direct_expenditure_type (e.g., public vs. private) for the year 2011 across all countries. Highlight the OECD.
Average as a separate segment in the chart.
10.Create a workspace "Institution Analysis" and set up a schedule to refresh the
datasets every day at 6 AM.

Submission Instructions:

• Save your Power BI report as a .pbix file.
• Include a brief description of each task in the report.