Coursework Description Sheet

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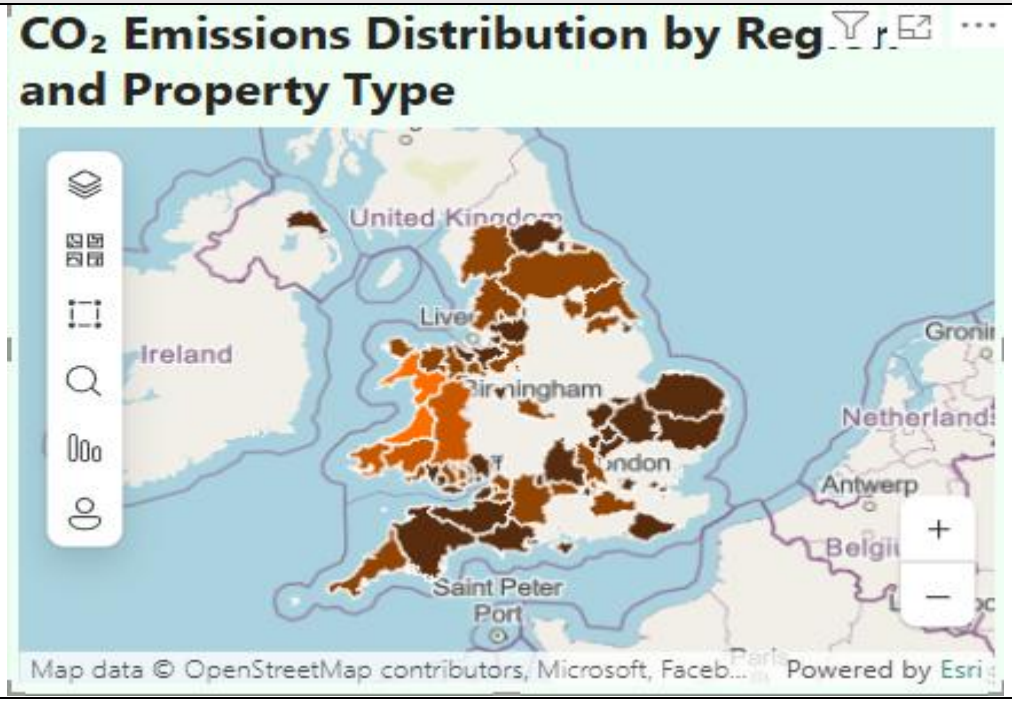
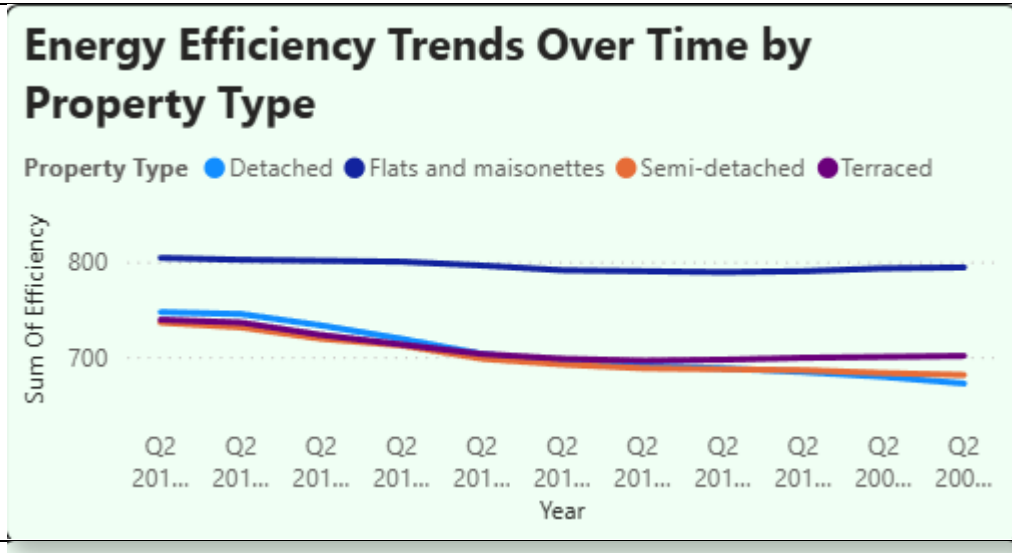
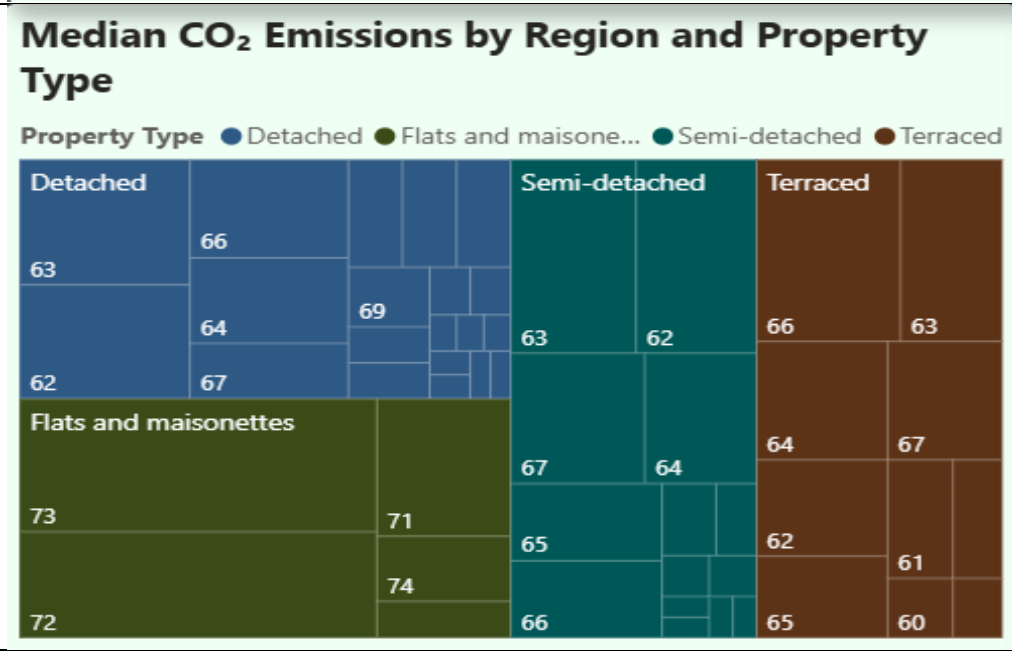
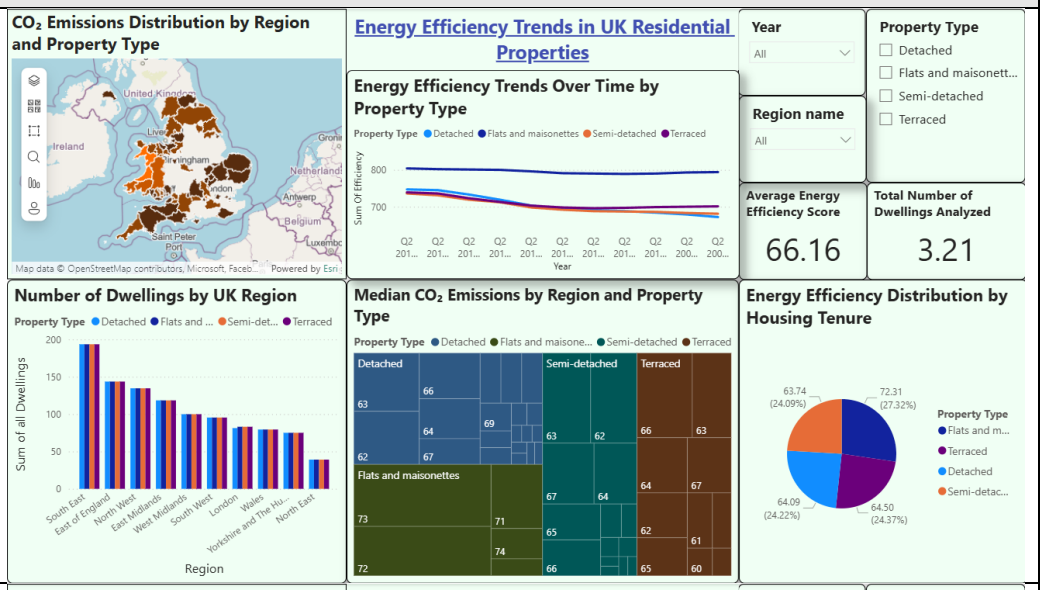
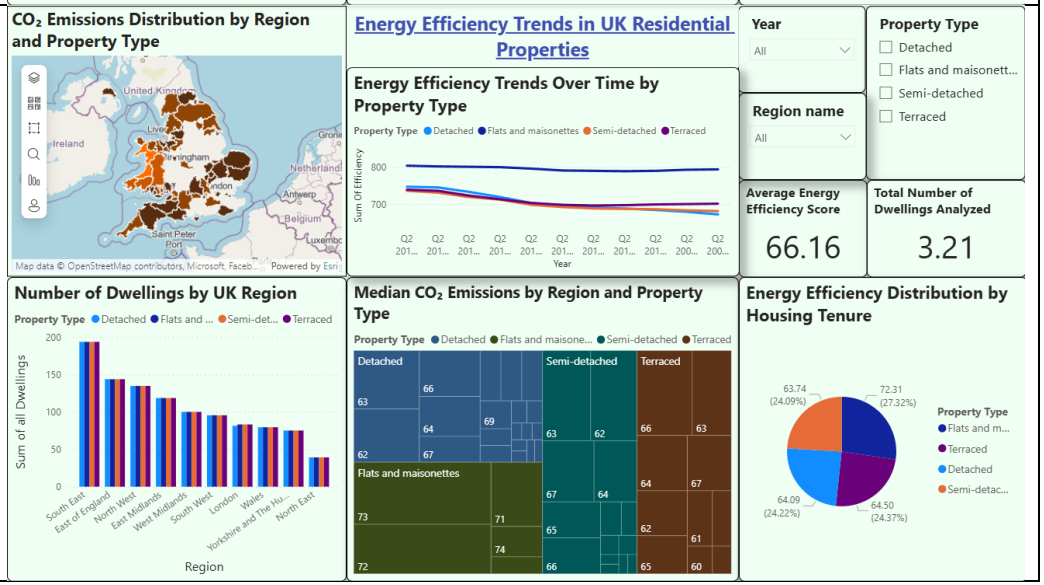
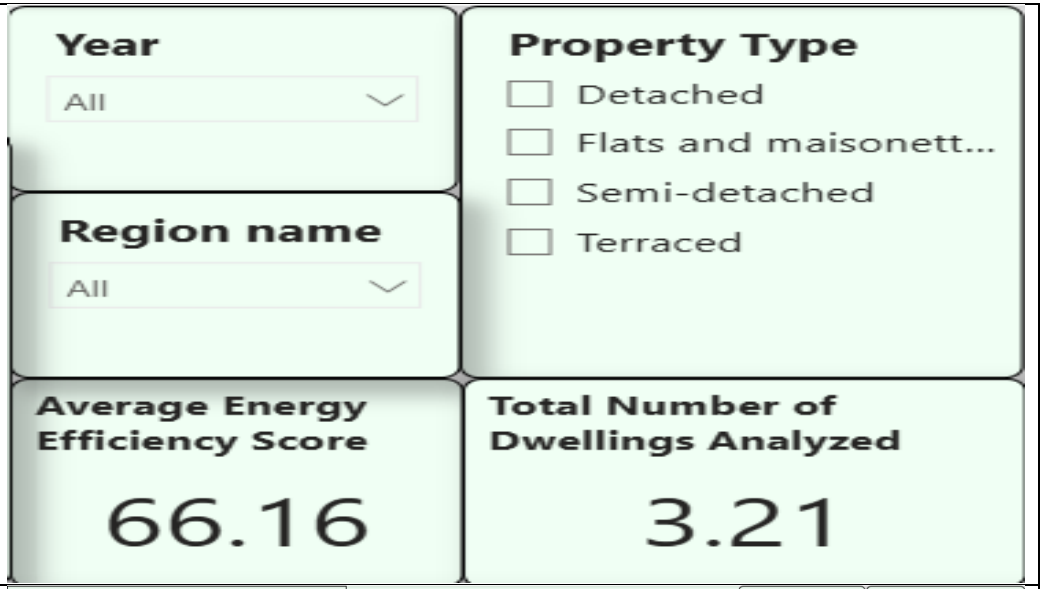
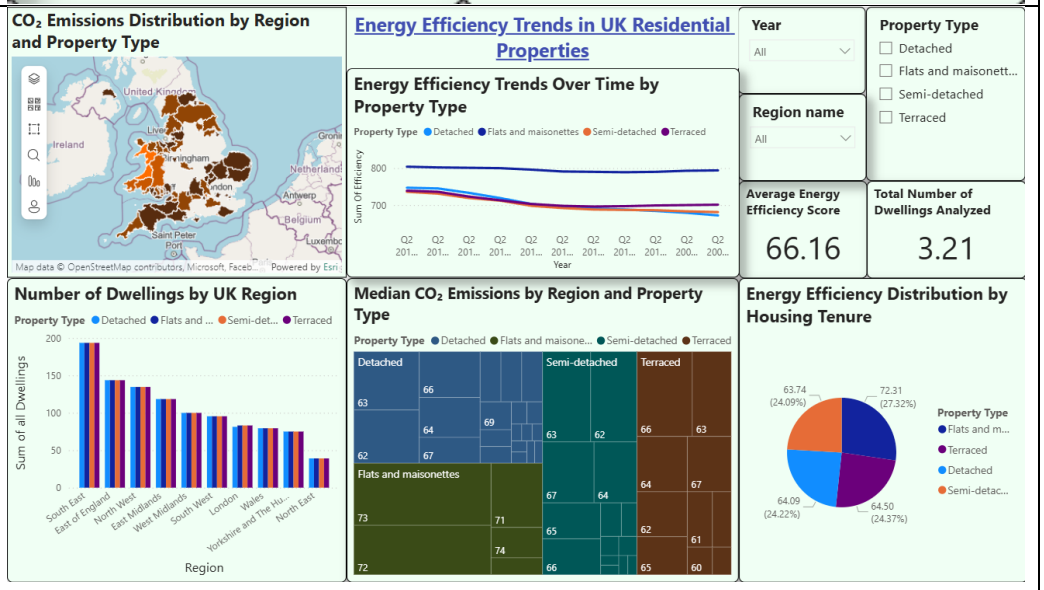
Question	Description	Figure
Fit to Task/User needs		
Location task - How does the visualisation allow users to access the spread of carbon dioxide emission across the UK based on the property type?	This graphical illustration is a vivid description of how the CO2 emissions vary across regions within the UK and also the form of property. The color is used to show the areas with high emissions in color and hence it is easy to see the regional difference such as the Midlands and South East through the use of gradient color. Hover information and property type filters are interactive tools that a user can use to navigate through the role of different housing types in emissions. Overall, it is a good combination of regional data and housing data to help to see the clear picture of the environmental and housing trends.	

Time task - How does the visualization allow user to understand the evolution of energy efficiency based on the property type, and location?	The line chart illustrates the dynamics of the average scores regarding the energy efficiency by the types of properties during the time. They are color-coded and trends of all types can be easily juxtaposed- the detached houses are prone to succeed. The filters enable the user to search last year, region and type of property and find any changes. The interactive design will help in finding out the long term trends and help understand better the housing energy performance. Through the dashboard, the users can navigate in the relationship of property type, tenure, region, energy efficiency and CO2 emission..	
Multi-dimentional data task - How does the visualization allow user to identify correlation amongst at least three of the following parameters: property type, tenure, location, energy efficiency, and carbon dioxide emission?	The treemap illustrates variations in regional and dwelling types of emission and pie chart illustrates variation in energy efficiency in model of ownership. When taken together, these images reveal trends, e.g. in certain regions certain types of property are less efficient and result in more emissions, which will give a balanced image of housing sustainability in the UK.	

Visualisation Principles		
Use of colour - How does the use of colour in this dashboard enhance the readability and effectiveness of the data presentation?	Dashboard color has been used effectively in clear and consistent way to ensure the images are easy to understand. The colors of the kinds of properties are dislodged blue (#0070C0), flats and maisonettes olive green (#6B8E23), semi-determined teal (#006666), and terraced brown (#8B4513). The gradient of the CO2 emission map (that is between light orange (#F4A261) and dark brown (#5A2A0C)) is used to show increased or reduced emissions in a region. These colors are simple, transparent and they are equally applied throughout the visuals to ensure that the ones intended to use them can easily identify patterns and quick comparisons of information without losing their way.	
Use of graphic design principles -How does the application of graphic design principles enhance the clarity and effectiveness of the data presentation in this dashboard?	The dashboard uses major concepts of design such as alignment, balance, contrast and consistency to make it clear and easily readable. Its grid structure provides a balanced and clean appearance of the visuals, and the presence of contrasting colors, font consistency, and spacing makes it appear professional and held together. These design features render the information interesting and user friendly.	

Use of interaction - How does the use of interactive design elements improve the user's ability to explore and interpret data on this dashboard?	Interactive filters enable the users to browse the information with ease. Slicers such as Year, Region and Property Type enable immediate focus on a specific area or time with all visuals being updated in real-time. Summary cards of Median Energy Efficiency Score and Total Dwellings also automatically update providing instant feedback. This interaction makes the dashboard less static and easy to use and informative.	
Use of text and legend - How do the use of text and legends contribute to the clarity and user comprehension of the data presented in this dashboard?	Dashboard is easy to read due to clear titles, labels, and legends. The name of every chart is plain and clear like the CO2 Emissions Distribution by Region and Property Type or Energy Efficiency Trends Over Time and makes the user able to know what it is without incurring any costs yet using it. Colors of the legends are similar with blue color being used to show Detached and olive green is used to show Flats and teal is used to show Semi-detached and brown is used to show Terraced, one can easily compare the data provided in various visuals. This consistency of the text and colour allows the dashboard to be readable and helps a user to render the essential insights fast..	

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