## Basic to Intermediate - Task 3

**Problem statement:** Amazon wants to enter the specialised engineering and technical books for education. It has identified a target market based on the data provided (Attached)

- 1. Create a new column "S.No." and fill a series of numbers in a column from 1 to 1000.
- 2. Calculate the average Daily Time Spent on Site for all the data in the dataset.
- 3. Calculate the median Age of the individuals in the dataset.
- 4. What is the maximum value in the Area Income column?
- 5. Find the minimum value in the Daily Internet Usage column.
- 6. Create a new column named "Total Daily Usage" which is the product of Daily Time Spent on Site and Daily Internet Usage.
- 7. Sort the data in ascending order based on the "Age" column. Then sort the data in descending order based on the "Area Income" column.
- 8. Split the column "Timestamp" into Date and Time columns.
- 9. Filter the dataset to show only the rows where "Male" is marked as "Yes."
- 10. Filter the dataset to show only the rows where "Clicked on Ad" is marked as "Yes."
- 11. Create a pivot table to show the average Daily Time Spent on Site for each city.
- 12. Add a pivot chart to visualize the total Daily Internet Usage for each city.
- 13. Calculate the percentage of individuals who clicked on the ad.
- 14. Use the VLOOKUP function to find the country for a given city "Guadeloupe".
- 15. Use the IF function to create a new column that categorizes age groups as "Young," "Middle-aged," or "Senior."
- 16. Use the SUMIF function to calculate the total Daily Time Spent on Site for individuals who clicked on the ad.
- 17. Create a bar chart to visualize the distribution of Age groups.
- 18. Use VLOOKUP to find the "Ad Topic Line" for a specific timestamp " 24/02/2016 7:08:11 PM".
- 19. Calculate the average Area Income for individuals who are "Male" and clicked on the ad.
- 20. Calculate the maximum Daily Internet Usage for individuals in the "Young" age group.
- 21. Create a scatter plot to visualize the relationship between Daily Time Spent on Site and Daily Internet Usage.
- 22. Apply conditional formatting to highlight the rows where Daily Internet Usage is above the average.

- 23. Retrieve the "Area Income" for the entry with the highest "Daily Internet Usage" using INDEX and MATCH.
- 24. Use the CONCATENATE function to combine the "City" and "Country" columns into one.
- 25. Calculate the total Daily Time Spent on Site for individuals from "Bosnia and Herzegovina" country.
- 26. Use the MATCH function to find the position of a 24/02/2016 7:08:11 PM timestamp in the dataset.
- 27. Calculate the total number of individuals who clicked on the ad for each city.
- 28. Use the AVERAGEIFS function to find the average Age for individuals who clicked on the ad in a Catherinefort city.
- 29. Create a column chart to visualize the number of individuals who clicked on the ad in each city.
- 30. Apply conditional formatting to highlight the rows where "Clicked on Ad" is marked as "Yes."
- 31. Create a rule to format cells with a red font color if the age is above 30.
- 32. Calculate the standard deviation of the Daily Time Spent on Site.
- 33. Use the INDEX and MATCH functions to retrieve the "Ad Topic Line" for the individual with the highest Area Income.
- 34. Create a pie chart to represent the distribution of "Male" and "Female" individuals in the dataset.
- 35. Format the "Area Income" column to display values with two decimal places.
- 36. Implement data validation to ensure that the "Age" column only contains values between 18 and 65.
- 37. Find the most common age group among users who clicked on the ad. Also, Calculate the percentage of individuals who clicked on the ad in the Senior age group.
- 38. Create a pivot table to show the total count of clicked ads by city.
- 39. Create a drop-down list for the "Country" column to select from a predefined list of countries and display the average Daily Time Spent on Site.
- 40. Calculate the click-through rate (CTR) for the ads, given the total clicks and the number of rows.