CAR INSURANCE SUBSCRIPTION PREDICTION
GROUP 7

1. Research Question:
    a. Aim of the Project:
        i. How do demographic factors like age and marital status impact car insurance subscription rates?
        ii. How does the communication type used in contacting clients affect their likelihood of subscribing to car insurance?
        iii. What is the significance of the timing and frequency of contact (day of the week, time of day, number of contacts) in influencing subscription decisions?
    b. Potential audience:
        i. Insurance industry professionals, including executives, marketers, and analysts.
        ii. Regulatory authorities and policymakers in the insurance sector.
    c. Why They Would Be Interested: They would be interested in these questions to optimize marketing strategies, sales, and consumer protection within the insurance industry.

2. Data:
    a. Data Source: Car Insurance Dataset from Kaggle: https://www.kaggle.com/datasets/kondla/carinsurance/data
    b. Data Period: January - December (Year not mentioned)
    c. Level of Observation: Individual customer-level
    d. Repeated Observations: No repeated observations for a given client.

3. Model:
    a. Outcome of Interest (Y variable): CarInsurance (0 for no subscription, 1 for subscription)
    b. Covariates or Predictors (X variables): Age, Job, Marital, Education, Default (Has credit or not), Balance (Average yearly balance), HHInsurance (Household insurance), CarLoan, Communication (Contact type), LastContactMonth, LastContactDay, CallStart, CallEnd, NoOfContacts, DaysPassed, PrevAttempts, Outcome (outcome of the previous marketing campaign)
    c. Statistical Model(s): Logistic regression, Linear Regression, Random Forest, or KNN for binary classification.

4. Results/Conclusions:
    a. Results and conclusions will be based on the analysis, but we expect to:
        i. Identify significant predictors of car insurance subscription.
        ii. Build a predictive model to estimate the likelihood of subscription.
    b. While we have not conducted statistical analyses yet, we anticipate that factors like age, marital status, communication type, and previous campaign outcome may influence car insurance subscription decisions. Further analysis will provide more insights.