Candidate Test 2022 Analysis

For this assignment, we analyzed the 2022 Candidate Tests conducted by DR and TV2. The aim was to explore political candidates' responses and gain insights into their affiliations, confidence levels, and inter- and intra-party dynamics.

Key Tasks Performed

1. **Data Exploration**:
    - Analyzed candidates' ages grouped by their political parties.
    - Identified the most confident candidates by calculating the highest proportion of "strongly agree" and "strongly disagree" responses.
2. **Comparison of Responses**:
    - Examined differences in responses between and within parties.
    - Highlighted parties with the most internal disagreements based on response patterns.
3. **Machine Learning Models**:
    - Developed classification models to predict candidates' party affiliations using Decision Tree, Random Forest, Gradient Boosted Tree, and two other algorithms.
    - Investigated discrepancies between predicted and actual party affiliations to understand potential misalignments.
4. **Political Landscape Analysis**:
    - Visualized candidates' positions relative to their parties using data from both DR and TV2.
    - Used color coding and insights from similar analyses to enhance the understanding of political alignment.

We worked collaboratively to clean, preprocess, and analyze the data while addressing missing values and inconsistencies. The assignment allowed us to apply both data science techniques and machine learning models to gain a deeper understanding of Denmark’s political landscape.