Case II Description

The case consists of doing an exploratory (unsupervised) analysis using the data source or parts of the data source. Please choose **one** of the following three topics and continue your exploration along that for the case:

- Explore clustering methods to derive insights from the data.

- Use decomposition and subspace methods to investigate low-dimension representation of the data

- Employ Canonical correlation analysis and other supervised methods to model the response (emotions) using the features as input.

If you would like pursue investigation using methods besides the above, feel free to do so after having a word with the instructor. You will be using the EmoPairCompete dataset which is described in *case_description_2024.pdf*. Features have been extracted from the dataset and shared in the HR_data.csv; **You are expected to use the features in this file**. However, for completeness we have also shared the raw time domain signals under dataset. An interpretation of the model should be present. You are allowed to use other data sources as well. You may supplement your unsupervised analysis with a supervised analysis, if you wish. Formulate a clear purpose for your project, so the aim of your analysis is clear. What are your research questions? What kind of representation would you like to derive from the features of the biosignals? What could it be used for? We expect you to use methods from the course curriculum. Please make solid arguments for your choice of methods. The choice of methods should align with your aim. The evaluation criteria for the case is provided in *case_evaluation_2024.pdf*