OBJECTIVES

1. Preprocess the provided dataset supplied by the client, to suit machine/deep learning models.
2. Develop multiple emotion recognition model architectures.
3. Train the different models using the preprocessed dataset, and on the same hyperparameter values.
4. Evaluate the performance of the models on a held-out test set and choose the best performing algorithm.
5. Obtain a dataset of audio recordings of children expressing different emotions. This dataset will be collected using a text-to-speech (TTS) engine to generate audio recordings of children's speech.
6. Subject this data to the chosen AI model, and finetune parameters to achieve better results, if necessary.
7. Deploy the emotion recognition model to a production environment and develop a user interface (UI) to allow users interact with the embedded model.

DELIVERABLES

1. A zipped folder containing the python files of source code for the developed machine learning models and user interface.​
2. A portable document format (PDF) of the project report and user interface manual.
3. A video on the step-by-step process of deploying the user interface (UI).