# Class 11 Breakout – Machine Learning

You're required to provide a cost estimate from Azure Pricing Calculator for training machine learning and using this model in production. The scoring process consists of two steps accomplished to classify emails as spam. The first machine learning model should detect email language, analyze its sentiment, and extract key phrases. Next, these outputs and email metadata are sent to the second model responsible for classifying emails based on deep learning neural networks.

On average, the solution classifies 1.2 million emails monthly that contain about 1500 characters. Three hundred hours of five NVIDIA Tesla V100 GPU cards are needed to retrain the second model each month. Integration with the first model and inference for the classification model must be implemented in lightweight Linux-based containers having 64 cores and 256 GB RAM in total. In addition, all ML process steps should be integrated into a single environment supporting MLOps and simplifying management of compute resources.

Remember to minimize overall costs where possible. This breakout is graded; please, submit your cost estimate via [Microsoft Forms](https://forms.office.com/r/CCJtYDC5AA) by next Wednesday, December 15, 23:59.