CLASS 9 01-06-2021

**QUESTIONS**

👉What is MSE?  
👉What is gradient descent?  
👉What is joblib?  
👉What is pickle?

**ANSWERS**

1. The **mean squared error (MSE)** tells you how close a regression line is to a set of points. It does this by taking the distances from the points to the regression line (these distances are the “errors”) and squaring them. The squaring is necessary to remove any negative signs. The lower the MSE, the better the forecast.

2. **Gradient descent** is an optimization algorithm that's used when training a machine learning model. It's based on a convex function and tweaks its parameters iteratively to minimize a given function to its local minimum.

3. **Joblib** is a set of tools to provide lightweight pipelining in Python. In particular: transparent disk-caching of functions and lazy re-evaluation (memoize pattern)

4. **Pickle** in Python is primarily used in serializing and deserializing a Python object structure. In other words, it's the process of converting a Python object into a byte stream to store it in a file/database, maintain program state across sessions, or transport data over the network.