What is the backpropagation?

Backpropagation is an algorithm used to train neural networks by adjusting weights to minimize prediction errors. It involves:

1. Forward Propagation: Compute output from inputs.
2. Loss Calculation: Measure error between prediction and actual target.
3. Backward Propagation: Use the chain rule to calculate gradients of the loss with respect to weights.
4. Weight Update: Adjust weights using gradients and a learning rate.

This process repeats until the error is minimized or a stopping criterion is met. It's essential for efficient and scalable neural network training.