**Simple Explanation of Neural Networks in Machine Learning**

Imagine the situation when you first started learning to recognize a cat, the first time someone tells you, “This is a cat” and you start noticing some patterns like fur, whiskers, two ears,four legs and a tail. Eventually, even without anyone telling you, you can spot a cat in photos, videos, or in real life.

That’s exactly what a neural network does in the context for a computer. It mimics the way our human brain learns by using tiny decision making units called neurons that are arranged in layers. Each neuron looks at the input, finds the patterns and passes it on. With enough examples, the network learns on its own and gets better over time.

Neural networks are great at recognizing speech, objects identification and translating languages because they learn the patterns without needing us to manually explain every single detail.

Reflections on Communication and Learning from my experience in the tech and leadership, especially during my time at Infosys, I’ve realized how important it is to simplify complex topics. Breaking down the concept of neural networks into relatable examples like human brain recognizing cats, follows principles of chunking, storytelling, and using the analogies all of which makes the learning more accessible.

This exercise also reflects the importance of adaptive communication, particularly in AI/ML environments where team members may have the varying levels of technical knowledge. Using the visuals, step-by-step explanations and the real world contexts helps promote understanding and trust all of which are essential in changing leadership.

I have used gen AI to help me structure the thoughts and for clarity purpose as part of the discussion

**References:**

Goodfellow, I., Bengio, Y., & Courville, A. (2016) Deep Learning MIT Press.