

(a) Explain how you can implement DL in a real-world application.

To implement a Deep Learning model in the real world, start by defining the problem and identifying the task (e.g., classification, regression). Collaborate with domain experts to understand existing methods and accuracy requirements. Assess current solutions and their limitations, ensuring data availability or devising strategies for data collection. Choose an appropriate model, refine it based on requirements, and train it, adjusting layers and activations for optimal performance. Once trained, create a production-ready version.

(b) What is the use of Activation function in Artificial Neural Networks? What would be the problem if we don't use it in ANN networks.

We use the Activation func. In ANN to get the non linearity in the model with out activation function ANN or DNNs are the linear regression models only as each layer output will not be much different and activation function helps the squash values to 0 to 1 or -1 to 1. Activation like relu, tanh help in gradient learning as they are differentiable and if we dont use the activation we can face problems like vanishing gradient are exploding gradient.