**ACTIVITY #3**

1. **Multiple -choice questionnaire**

1. What is the purpose of an activation function in a neural network?

 - A. Assigning weights to inputs

 - B. Determining the importance of variables

 - C. Adjusting parameters during training

 - D. Deciding whether a node should be activated

2. Which optimization algorithm is commonly used for adjusting weights in neural network training?

 - A. Random Forest

 - B. Gradient Descent

 - C. K-Means

 - D. Support Vector Machine

3. What role does backpropagation play in neural network training?

 - A. Initializing network weights

 - B. Propagating information forward

 - C. Calculating gradients and adjusting parameters

 - D. Activating nodes in the output layer

4. Which neural network type is primarily used for image recognition and computer vision?

 - A. Feedforward Neural Network

 - B. Recurrent Neural Network

 - C. Convolutional Neural Network

 - D. Perceptron

5. In the context of neural networks, what does the term "deep" refer to in deep learning?

 - A. The complexity of mathematical operations

 - B. The number of layers in the network

 - C. The variety of activation functions used

 - D. The presence of feedback loops