lab1

February 3, 2024

[ ]:
```python
# 1. Write a Program to implement Multiple Perceptron Model.

import tensorflow as tf
from tensorflow.keras import layers, models

# Define the MLP model
def create_mlp(input_size, hidden_sizes, output_size):
    model = models.Sequential()

    # Add the input layer
    model.add(layers.InputLayer(input_shape=(input_size,)))

    # Add hidden layers
    for hidden_size in hidden_sizes:
        model.add(layers.Dense(hidden_size, activation='relu'))

    # Add the output layer
    model.add(layers.Dense(output_size, activation='softmax'))

    return model

# Example usage

if __name__ == "__main__":
    # Define the model architecture
    input_size = 10 # Example: Number of input features
    hidden_sizes = [64, 32] # Example: Two hidden layers with 64 and 32 neurons,
    respectively
    output_size = 2 # Example: Number of output classes

    # Create the MLP model
    mlp_model = create_mlp(input_size, hidden_sizes, output_size)

    # Display the model summary
    mlp_model.summary()
```