**TASK 2**:

**AI, ML, DL Relationship Diagram:**

 **Artificial Intelligence (AI)**: Broad field that encompasses creating machines capable of intelligent behavior.

 **Machine Learning (ML)**: A subset of AI that enables systems to learn from data and improve over time.

 **Deep Learning (DL)**: A subset of ML that focuses on neural networks with many layers, capable of learning from large amounts of data.

**The code to visualize this relationship in Jupyter Notebook using matplotlib :**

import matplotlib.pyplot as plt

import matplotlib\_venn as venn

# Create the Venn diagram

venn.venn2(subsets=(1, 1, 1), set\_labels =('AI', 'ML'))

# Add title

plt.title("Relationship between AI, Machine Learning, and Deep Learning")

# Display the diagram

plt.show()

