

AL2002 – Artificial Intelligence Lab

Lab Task 1

Problem: 1

Question: Analyzing a Social Network Dataset

You are given a dataset representing a social network where nodes represent individuals, and edges represent connections between individuals. Additionally, everyone has attributes such as age and number of connections. The dataset is provided in CSV format.

1. Data Loading:

- Load the dataset into Pandas Data Frame.
- Check for missing values and handle them appropriately.

2. Social Network Analysis:

- Use NetworkX to create a graph representation of the social network.

3. Attribute Analysis:

- Explore the distribution of age among individuals in the network using appropriate visualizations.
- Perform simple linear regression to analyze the relationship between the number of connections and age.

4. Insights:

- Given a new age of 30 years, use your trained model to predict its connections.

Problem: 2

Write a Python program to plot two or more lines and set the line markers. The codesnippet gives the output shown in the following screenshot:

