

# LinkedIn Network Analysis Report

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### Project Introduction:

This project focuses on analyzing LinkedIn network data of students. Starting from raw CSV files, the data was cleaned and organized. Each file contained student connections. After preprocessing, a graph was constructed where each node represents a student and an edge denotes a connection. Various analyses like connection counts and pathfinding were done using Python.

### Top 5 Most Connected Students:

- Rohit Malviya — 4620 connections
- RAVI RAJPUT — 4286 connections
- Manoj Dewda — 4199 connections
- Ramraj Nagar — 3905 connections
- NIRMAL MEWADA — 3746 connections

### Random Walk Analysis (Ujjval Baijal → Nikhil Mehta):

#### Random Walk (98 steps):

Ujjval Baijal → Mayank Raj → Manish Kumar Tiwari → Gagan Prakash  
→ Ankit Gaud → Anshu Kumar → Nirmal Mewada → ... → Nikhil Mehta

## Pruned Path (13 steps):

Ujjval Baijal → Mayank Raj → Manish Kumar Tiwari → Ankit Gaud → Anshu Kumar → Nirmal Mewada → Parth Tiwari → Himanshu Kumar → Mahima Panwar → Challa Trivedh Kumar → Pallavi Maurya → Rani Kumari → Nikhil Mehta

## Shortest Path (3 steps):

Ujjval Baijal → Shlok Gupta → Nikhil Mehta

## Summary Stats:

- Random Walk Length: 98
- Pruned Path Length: 13
- Shortest Path Length: 3

## Conclusion:

- This project provides valuable insights into the structure of LinkedIn connections within a class.
- By analyzing connections and paths, it helps us understand the network dynamics.
- Random Walks and Shortest Paths can be applied to real-world network analysis, like in social media or professional networking platforms.
- This analysis can help identify key individuals or clusters within the network.
- This type of analysis can be extended to larger datasets to explore trends and relationships.