**OPTIMAL DATA TRANSFER THROUGH A NETWORK**

Course Name: CS 221L

University Name: Ghulam Ishaq Khan Institute

Instructor Name: Sir Usama Janjua

**Created By:**

Affan Ali (2021053)

Hamza Wajid (2021202)

Shehryar Sadiq (2021603)

**BRIEF DESCRIPTION OF THE PROJECT**

**Working:**

This project is made using graphs data structures and its purpose is to check the most optimal path between two graph nodes. In our case we have a map of routers forming a whole network. To send a signal between one router to another it needs to be transferred through a short path so that the data is quickly sent.

**Data Structures Used:**

The following data structures are used in this project:

1. Graphs
2. Queue
3. Vector
4. Hash Table

**Sample Example:**

Insert Source Router: ptcl

Insert Destination Router: galaxy

**Output:**

The Shortest Path between ptcl and galaxy is:

Ptcl🡪Pinout🡪Galaxy