

COMP 7005

Project

Report

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Purpose

- Creating a reliable communication protocol using UDP. Implement a client, a server, and a proxy server to simulate unreliable network conditions.

Requirements

tasks	status
<ul style="list-style-type: none">• Reads input from the keyboard and sends messages to the server using UDP.• Implements a simple protocol to handle acknowledgments and retransmissions.• Retries sending messages if no acknowledgment is received within a timeout period.• Uses command-line arguments to specify the server's IP address and port.	Fully implemented
<ul style="list-style-type: none">• Listens for incoming	Fully implemented

<p>messages on a specified IP address and port using UDP.</p> <ul style="list-style-type: none"> • Receives messages from the client and displays them on the screen. • Sends acknowledgements back to the client to confirm message receipt. 	
<ul style="list-style-type: none"> • Has configurable parameters for packet loss and delay: • Drop Chance: Probability (0% - 100%) of dropping packets from the client or server. • Delay Chance: Probability (0% - 100%) of delaying packets from the client or server. • Delay Time: Specifies how long to delay packets. This can be a fixed value or a random value within a specified range. • Must handle independent configuration for client-to-server and server-to-client directions. • Listens on a specified IP address and port for 	<p>Fully implemented</p>

incoming packets from the client.	
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Platforms

- Arch
- Ubuntu
- Fedora

Languages

- python

Documents

- [Design](#)
- [Testing](#)
- [User Guide](#)
- [Report](#)