

COMP 7005

Computer Networks & Protocols

Assignment-01

Report

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Purpose	3
Requirements	3
Client.....	3
Server	3
Platforms	3
Language	3
Documents	4

Purpose

This report aims to serve as a comprehensive resource for stakeholders, developers, and future project teams. It outlines the functional and non-functional requirements of the COMP7005-assign01 project, provides detailed descriptions of relevant project documentation—including the design document, test cases, and user guide—and offers valuable insights to inform future initiatives.

Requirements

Client

Task	Status
Accepts the name of a file as a command-line argument.	Fully implemented
Reads the contents of the file.	Fully implemented
Send the file's content to the server via a UNIX Domain Socket.	Fully implemented
Receives the encrypted file from the server and prints it to the terminal.	Fully implemented

Server

Task	Status
Accepts a shift value for the Caesar cipher as a command-line argument.	Fully implemented
Listens for client connections via a UNIX Domain Socket.	Fully implemented
Receives the file content from the client.	Fully implemented
Encrypts the file content using the Caesar cipher with the specified shift.	Fully implemented
Sends the encrypted content back to the client.	Fully implemented

Platforms

The **client.c** and **server.c** has been tested on:

- Ubuntu 24.04.1 LTS

Language

- ISO C23
- Compiles with gcc (13.3.0) and clang (18.1.3)

Documents

- Design (Refer report folder, design.pdf)
- Testing (Refer report folder, testing.pdf)
- User Guide (Refer report folder, user-guide.pdf)