

COMP 7005

Computer Networks & Protocols

Assignment-02

Report

Anmol Mittal

A01397754

February 9th, 2025

Course Reference Number (CRN): 92522

Purpose.....	3
Requirements	3
Platforms	3
Language.....	4
Compilers	4
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-assign02 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 following inputs as command-line arguments: <ul style="list-style-type: none">The IP address and port number of the server.The name of the file to send to the server.The keyword for the Vigenère cipher.	Fully implemented
Read the contents of the specified file.	Fully implemented
Connect to the server via a network socket using the given IP address and port number.	Fully implemented
Send the keyword and the file's content to the server.	Fully implemented
Receive the encrypted file content from the server and print it to the terminal.	Fully implemented
Server	
Task	Status
Accepts the following inputs as command-line arguments: <ul style="list-style-type: none">The IP address and port number to bind the server.	Fully implemented
Listen to client connections on the specified IP and port using a network socket.	Fully implemented
Receive the keyword and file content from the client.	Fully implemented
Encrypt the file content using the Vigenère cipher with the received keyword.	Fully implemented
Send 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

Compilers

- gcc (13.3.0)
- 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)