
SE375 SYSTEM PROGRAMMING SPRING 2023-2024

Laboratory Assignment 10

May 15-16, 2024

Client-Server Communication Assignment

Your task is to modify your Java application from Lab 9.

The objective is the same, the desired output is the same. See the image below for reference.

However, this time, we will use symmetric encryption.

The first task is to generate a shared secret key on the server side. Once the connection has been established, the server will send the secret key over to the client.

Then, all communication between the two sides will proceed identically to Lab 9. However, any time a piece of data is sent, it should be encrypted with the secret key, and decrypted on the other side.

<pre>1 Waiting for connection... 2 Connection established with: /127.0.0.1 3 Sending URL: https://homes.izmirkonomi.edu.tr/eokur/sample0.txt 4 Data length received: 20 5 User choices received: U, 1, R 6 Received char: S 6 Received char: y 6 Received char: s 6 Received char: t 6 Received char: e 6 Received char: m 6 Received char: P 6 Received char: r 6 Received char: o 6 Received char: g 6 Received char: r 6 Received char: a 6 Received char: m 6 Received char: m 6 Received char: i 6 Received char: n 6 Received char: g 6 Received char: L 6 Received char: a 6 Received char: b Process finished with exit code 0</pre>	<pre>2 Attempting connection to the server... 3 Received https://homes.izmirkonomi.edu.tr/eokur/sample0.txt 4 Data: SystemProgrammingLab 4 Please state your choice.. UPPER case or lower case (U or L): U 4 Please state your choice.. How many characters to shift (number between 1-3): 1 4 Please state your choice.. Color of characters (R or Y): R 5 Sending data length to server: 20 5 Sending user choices to server: U, 1, R 7 Original 7 SystemProgrammingLab 7 After Case Change 7 SYSTEMPROGRAMMINGLAB 7 After Shift 7 TztufnQsphsbnnjohMbc 7 After Color 7 SystemProgrammingLab Process finished with exit code 0</pre>
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