

DCN (TY) ASSIGNMENT – 1

Data Communication and Networking

1. Request a number from Client-side and server will calculate the **Square** of the number and return it to client in response. Use **TCP** Protocol implementation.
2. Request a number from Client-side and server will calculate the **Cube** of the number and return it to client in response. Use **UDP** Protocol implementation.
3. Enter a set of numeric values at client-side and send it to server-side. Server will fetch the values and return all Prime numbers from the series received. If the set of values does not have any **prime number** return 0. Use **TCP** Protocol implementation.
4. Write a **menu driven** program to convert temperature entered in Celsius to Fahrenheit and vice-versa. Also use one option for Exit. Use **UDP** Protocol. Consider the below given options:
 - a. Celsius to Fahrenheit
 - b. Fahrenheit to Celsius
5. Write a **menu driven** program to calculate the area of different shapes. Also use one option for Exit. Take appropriate inputs from Client and use appropriate formulas for the same. Use **TCP** protocol. Consider the below given shapes:
 - a. Circle
 - b. Square
6. Enter a sentence at Client side and pass it to Server. Server should convert it into **Camel Case** and return it to Client as response. Use **TCP** Protocol implementation.

Example, **Input:** SLOW and STEADY wiNs the RacE
 Output: Slow And Steady Wins The Race
7. Enter a sentence at Client side and pass it to Server. Server should convert it into **Toggle Case** and return it to Client as response. Use **UDP** Protocol implementation.

Example, **Input:** all that GLITTERS IS Not GoId
 Output: aLL tHAT gLITTERS iS nOT gOLD