**Database**

**Database:** A database is an organized collection of data, typically stored and accessed electronically from a computer system. It can be as simple as a text file or as complex as a relational database management system (RDBMS) or a NoSQL database.

**Relational Data:** Relational data refers to data organized in tables with rows and columns, and relationships between them are established using keys. This structure is characteristic of relational database management systems (RDBMS), such as MySQL, PostgreSQL, and Oracle. The tables can be related to each other through primary and foreign keys, providing a structured and efficient way to organize and retrieve data.

**Non-relational Data (NoSQL):** Non-relational data, often referred to as NoSQL (Not Only SQL), represents databases that do not follow the traditional relational database model. NoSQL databases are designed to handle unstructured or semi-structured data and can scale horizontally to handle large volumes of data and traffic. Examples of NoSQL databases include MongoDB, Cassandra, and Redis.

**SQL (Structured Query Language):** SQL is a standard language for managing and manipulating relational databases. It is used for tasks such as querying data, updating data, and defining the structure of a relational database. SQL is commonly associated with RDBMS like MySQL, PostgreSQL, and Microsoft SQL Server.

**NoSQL:** NoSQL is a term used to describe databases that do not rely on the traditional SQL language or relational model. NoSQL databases are designed to handle a variety of data types, including unstructured and semi-structured data. They are often chosen for their ability to scale horizontally, handle large amounts of data, and provide flexible schema designs.

**MongoDB:** MongoDB is a popular NoSQL database that stores data in a flexible, JSON-like format known as BSON (Binary JSON). It is designed to handle large amounts of unstructured or semi-structured data and provides horizontal scalability. MongoDB uses a document-oriented model, where data is stored in flexible, schema-less documents within collections. It is well-suited for applications with rapidly changing requirements and large amounts of data. MongoDB supports indexing, query optimization, and various features for data manipulation and aggregation. It is widely used in web development, content management systems, and other applications where flexibility and scalability are essential.

***const promise1= new Promise((resolve)=>setTimeout(function() {resolve('promise 1')}, 2000))***

***const promise2= new Promise((\_,reject)=>setTimeout(function() {reject('promise 2')}, 1000))***

***const promise3= new Promise((resolve)=>setTimeout(function() {resolve('promise 3')}, 3000))***

***Promise.any([promise1,promise2,promise3])***

***.then((result)=>{***

***console.log(result)***

***})***

***.catch((error)=>{***

***console.error(error)***

***})***

In Node.js, a buffer is a temporary storage area for raw binary data. It is particularly useful when working with binary streams of data, such as reading from or writing to files, handling network protocols, or dealing with binary data in general.

Here's a simple explanation:

1. **Raw Binary Data:**
   * Computers deal with data in binary form, consisting of 0s and 1s.
   * Buffers in Node.js provide a way to work with raw binary data directly.
2. **Fixed-size Memory Allocation:**
   * Buffers are instances of the **Buffer** class in Node.js.
   * They represent a fixed-size chunk of memory allocated outside the JavaScript engine.
3. **Efficient Manipulation:**
   * Buffers allow efficient manipulation of binary data, providing methods to read from or write to the allocated memory.
4. **Used in I/O Operations:**
   * Buffers are commonly used in I/O operations, such as reading from or writing to files, handling network data, and interacting with streams.

***[20:16, 08/10/2023] Tuttoo Joephilip: - Write a C program to sort an array and print the count of unique elements in the array.***

***[20:16, 08/10/2023] Tuttoo Joephilip: - Write a C program to delete duplicate elements from an array.***

***[20:16, 08/10/2023] Tuttoo Joephilip: \* Write a program to remove all the prime numbers in an array***

***[20:17, 08/10/2023] Tuttoo Joephilip: Write a program in C to find numbers that occur in exact two times in an array***

***[20:17, 08/10/2023] Tuttoo Joephilip: \* Write a C program to replace all prime numbers by 0 & even numbers by 1 in an array.***

***[20:17, 08/10/2023] Tuttoo Joephilip: \* Write a program in C to get an array from users and remove odd numbers from the array and find the sum of the existing values in the array.***

***[20:18, 08/10/2023] Tuttoo Joephilip: \* Write a program in C to find the prime numbers in an array and replace it with 0.***

***[20:18, 08/10/2023] Tuttoo Joephilip: \* Write a program in C to skip two elements after the occurrence of a non prime number in an array***

***[20:19, 08/10/2023] Tuttoo Joephilip: \* Write a program to replace all odd numbers with ‘\*’ in an array & find the sum of even numbers***

***[20:19, 08/10/2023] Tuttoo Joephilip: \* Write the code to reverse the array and remove all the multiples of ‘3’ from it***

***[20:19, 08/10/2023] Tuttoo Joephilip: \* Write a code to replace all the multiples of five by 10***

***[20:20, 08/10/2023] Tuttoo Joephilip: \* In an array replace all the multiples of three by ‘0’ and multiples of five by ‘1’***

***[20:20, 08/10/2023] Tuttoo Joephilip: \* Write a program to find the average of all unique array elements***

***[20:20, 08/10/2023] Tuttoo Joephilip: \* Write a program to find largest number in an unsorted array***

***[20:21, 08/10/2023] Tuttoo Joephilip: \* Write a program to find smallest number in an unsorted array***

***[20:21, 08/10/2023] Tuttoo Joephilip: \* Write a program to find the average of all unique array elements***

***[20:22, 08/10/2023] Tuttoo Joephilip: \* Write a C program to delete an element from an array at specified position.***

***[20:23, 08/10/2023] Tuttoo Joephilip: ➡️Write a program in C to merge two arrays of same size sorted in descending order***

***[20:23, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to find factorial of largest number in an array***

***[20:23, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to delete unique elements in an array***

***[20:24, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to read n number of values in an array and display the array after deleting two values next to an odd number.***

***[20:24, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to count even numbers and count prime numbers***

***[20:25, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to delete multiples of 5***

***[20:25, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to find the sum, sum is greater than 100 delete odd, sum is less than 100 delete even numbers***

***[20:25, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to delete lowest element in an array***

***[20:26, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to put even and odd elements of an array in two separate arrays.***

***[20:26, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to insert New value in the array***

***[20:27, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to print all unique elements in an array***

***[20:27, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to delete repeating element***

***[20:27, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to get an array from users, remove even numbers from the array and find the average of the existing values in the array.***

***[20:27, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to find the average of all the prime numbers in an array***

***[20:28, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to reverse an array and print the count of odd numbers in the array.***

***[20:28, 08/10/2023] Tuttoo Joephilip: ➡️ Sort the array and replace elements in an even position with ‘0’.***

***[20:28, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to find the frequencies of array elements***

***[20:29, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to insert a element in a specified position.***

***[20:29, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to Reverse the array and delete even numbers in the array***

***[20:30, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to read n number of values in an array and display the array after deleting two values next to an odd number.***

***[20:30, 08/10/2023] Tuttoo Joephilip: ➡️ Write a C program to find the largest element of an array without sorting***

***[20:30, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to count prime numbers***

***[20:30, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to delete unique numbers in the array***

***[20:31, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to find the sum, sum is greater than 100 delete even, sum is less than 100 delete odd numbers***

***[20:31, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to read n number of values in an array and display it in reverse order***

***[20:31, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program in C to find smallest element in the array without sorting***

***[20:31, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to count the total number of unique elements in an array***

***[20:32, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to print all repeating elements in an array***

***[20:33, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to print all prime numbers in an array***

***[20:33, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to find the majority element in the array (The majority element is the element that appears more than [n / 2] times).***

***[20:33, 08/10/2023] Tuttoo Joephilip: ➡️ Write a program to count the frequency of each element of an array.***

***[20:34, 08/10/2023] Tuttoo Joephilip: ➡️ Write a C program to sort an array and print the count of prime numbers in the array.***

***[20:35, 08/10/2023] Tuttoo Joephilip: I don't know whether any or some questions are repeated or not***