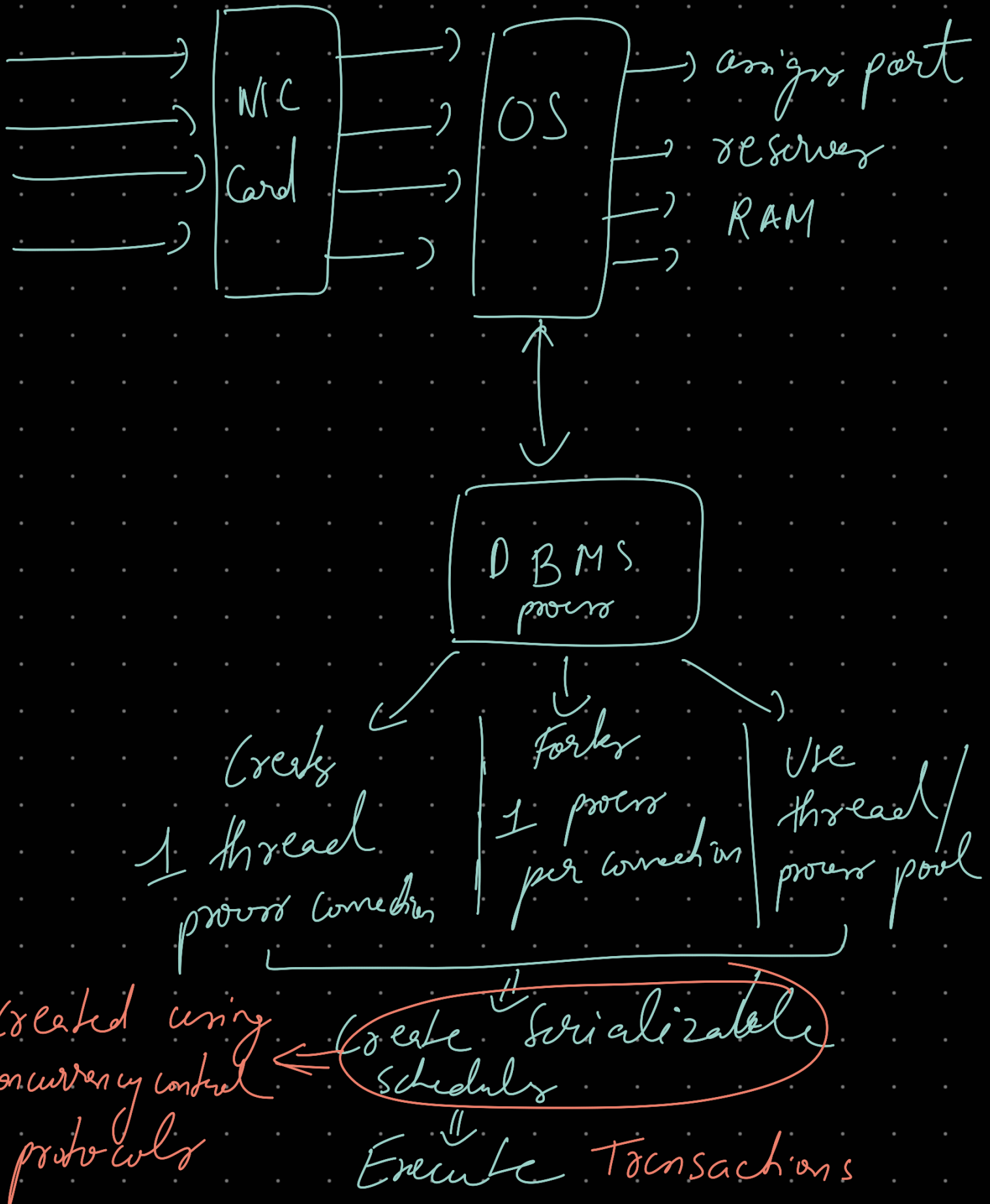


* What happens when DB process gets Multiple connections and queries



In a typical **SQL DBMS (Database Management System)**, the handling of incoming multiple queries depends on its architecture and design. Here's a breakdown of what happens:

1. Process-Based Architecture

- Some DBMSs, like **PostgreSQL**, use a **process-per-connection model**.
- When a new client connects, the DBMS spawns a new process to handle the connection and queries from that client.
- Each process operates independently, which makes it resilient but can consume more system resources (e.g., memory).

2. Thread-Based Architecture

- Many modern DBMSs, like **MySQL (InnoDB)** or **SQL Server**, use a **thread-per-connection model**.
- A new thread is created to handle each connection and its associated queries.
- Threads are typically more lightweight than processes, so this approach is more efficient in terms of resource utilization.

3. Event-Driven or Thread Pooling

- Advanced DBMS implementations often use **thread pools** to handle multiple queries efficiently without creating a new thread for every query.
- The pool contains a fixed number of threads, and incoming queries are queued. Threads are reused to process the queued queries, which minimizes the overhead of thread creation and destruction.

