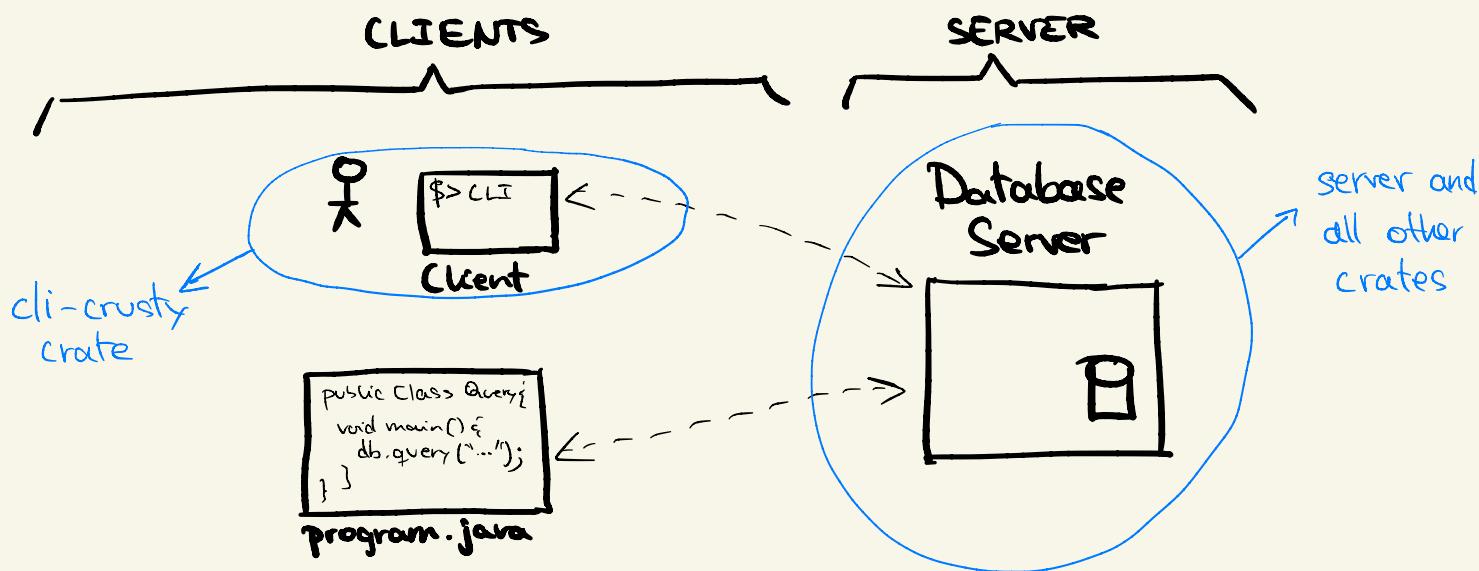


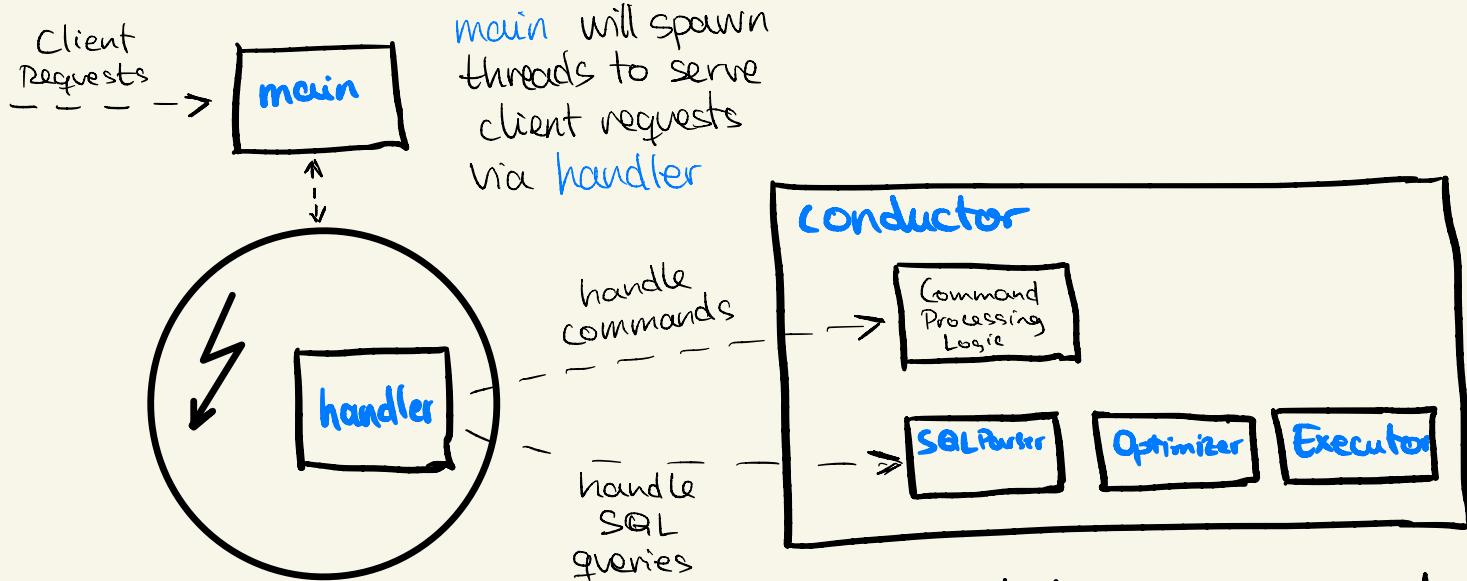
INTRODUCTION TO CRUSTY DB

Databases can be queried using many different clients, e.g., a CLI where you can write SQL queries directly, or through a programmatic API.



In crustydb, we include 1 client, **cli-crusty**, and a database server, whose entry point is in the **server** crate.

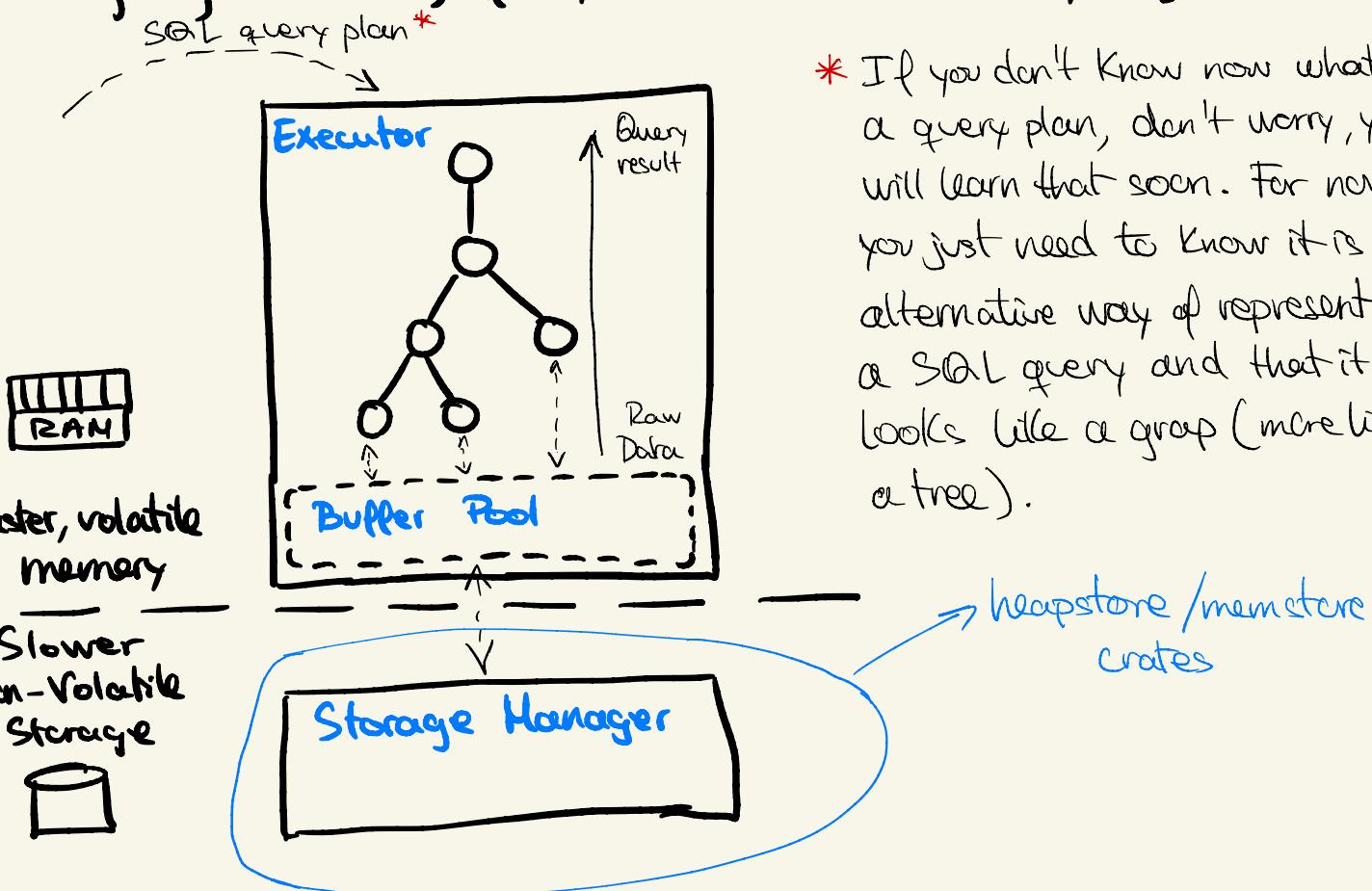
Let's zoom in the Database server.



The **conductor** orchestrates the database components in order to serve client commands and execute SQL queries.

Ultimately, the logic to execute SQL queries is implemented by an executor (query ex crate). Let's look at what is going on during query execution at a very high level.

MEMORY HIERARCHY



* If you don't know now what's a query plan, don't worry, you will learn that soon. For now, you just need to know it is an alternative way of representing a SQL query and that it looks like a graph (more like a tree).

Disk-based databases store data on disk so it persists after rebooting the server. A **storage manager** is in charge of handling read and write operations.

During query execution, the **executor** will schedule the necessary operators to produce correct query results. In the process of executing the query, certain operators will request data from the **storage manager**, which may be possibly delivered via a **buffer pool**.