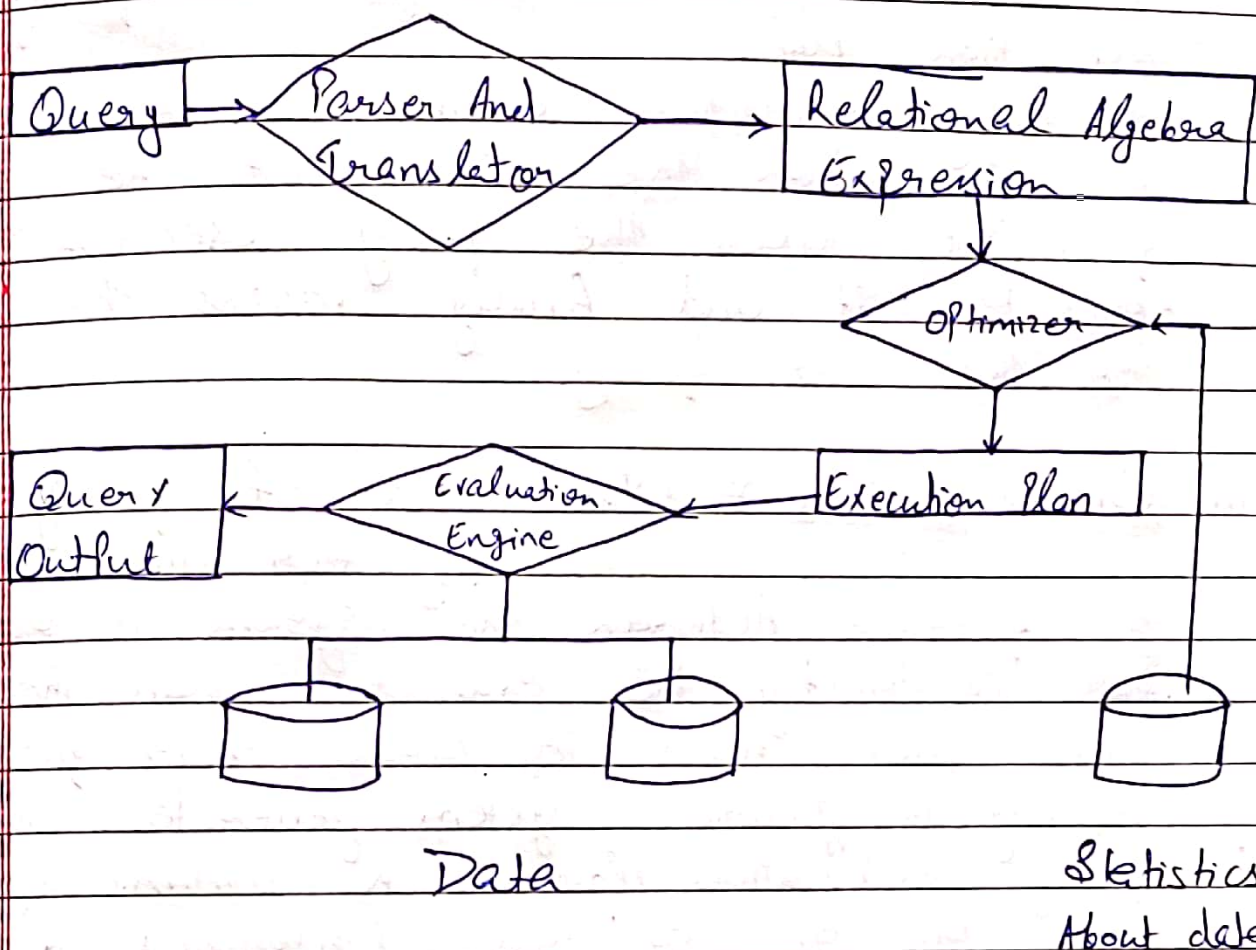


⑥ Query Processing is the activity performed in extracting data from database. It takes various phases which are given as

i) Passing And Translation &



ii) Evaluation &. In order to fully evaluate a query, the system needs to construct a query evaluation plan.

- The annotation in the evaluation plan may refer to the algorithm to be used for the particular index or the specific operations.
- Such relational algebra with annotations is referred to as Evaluation Primitives.

The evaluation primitives carry the instructions needed for evaluation of operations.

- Thus, a query evaluation plan defines a sequence of primitive operations used for evaluating a query. The query evaluation plan is also referred to as the query execution plan.
- A query execution engine is responsible for generating the output of the given query. It takes the query execution plan, executes it and finally makes the output for the user query.

(iii) Optimization & • The cost of query evaluation can vary for different types of queries. Although the system is responsible for constructing the evaluation plan, the user does not need to write their query efficiently.

- Usually, a database system generates an efficient query evaluation plan, which minimizes its cost. This type of task performed by the database system and is known as Query Optimization.
- For optimizing a query, the query optimizer should have an estimated cost analysis of each operation. It is because the overall operation cost depends on the memory allocation of several operations, execution cost and so on.



Q 5) Relational Algebra Tree is given as

