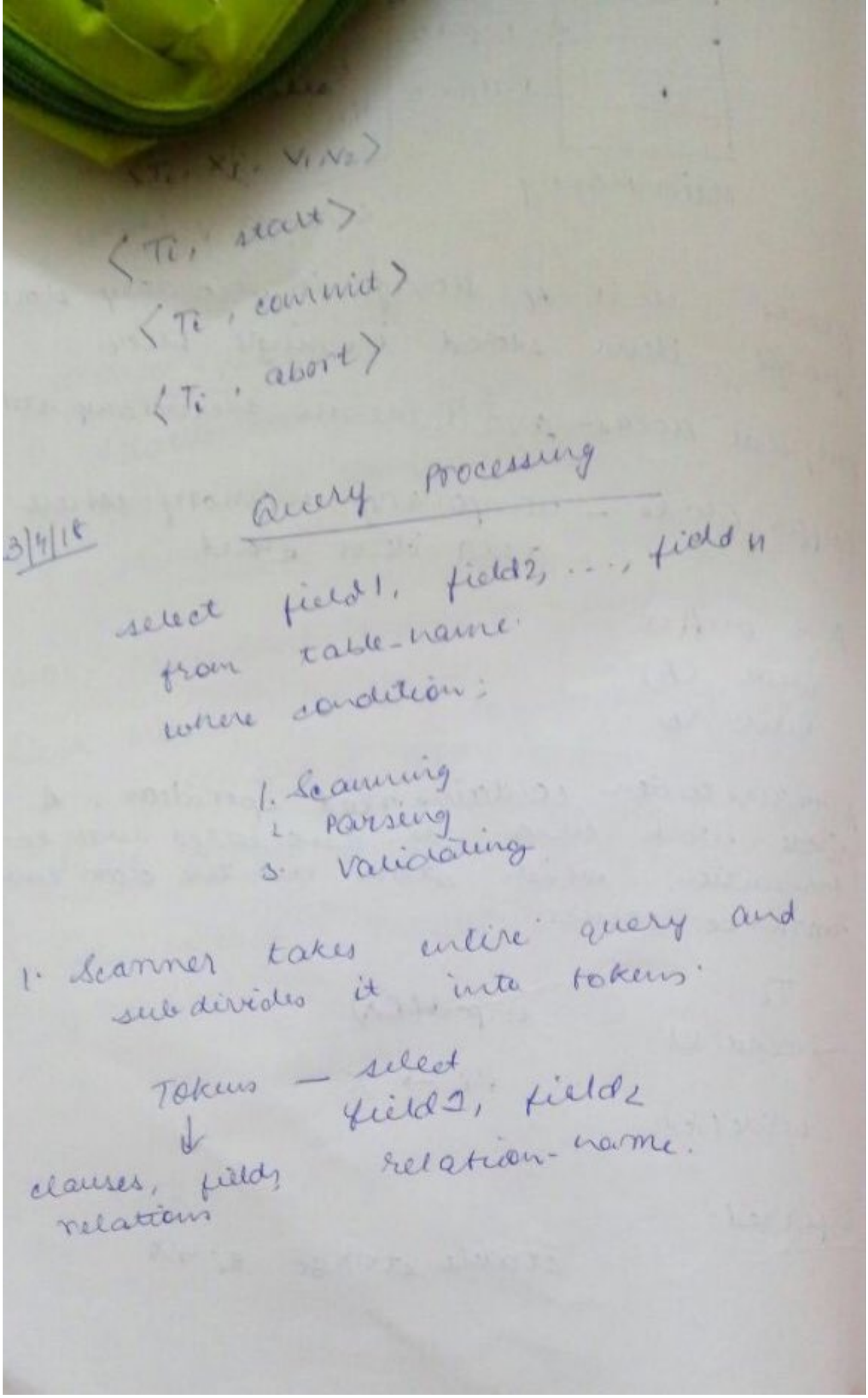

$\langle T_i, X_j, V_1, V_2 \rangle$

$\langle T_i, \text{start} \rangle$

$\langle T_i, \text{commit} \rangle$

$\langle T_i, \text{abort} \rangle$

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Query processing

select field1, field2, ..., fieldn
from table-name
where condition;

1. Scanning
2. Parsing
3. Validating

1. Scanner takes entire query and subdivides it into tokens.

Tokens — select
field1, field2
relation-name.

↓

clauses, fields, relations

1. Parser

Operation that checks the query whether the query is formulated using the exact grammar defind in SQL

Validation checking starts from table name then whether fields are in the table

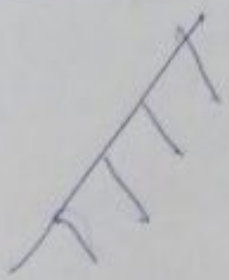
If these 2 checking successful. Then o/p displayed.

"Intermediate Representation" of query created - before displaying o/p to user.

non-linear data structures used

- Query Tree
- Query Graph.

Query evaluation

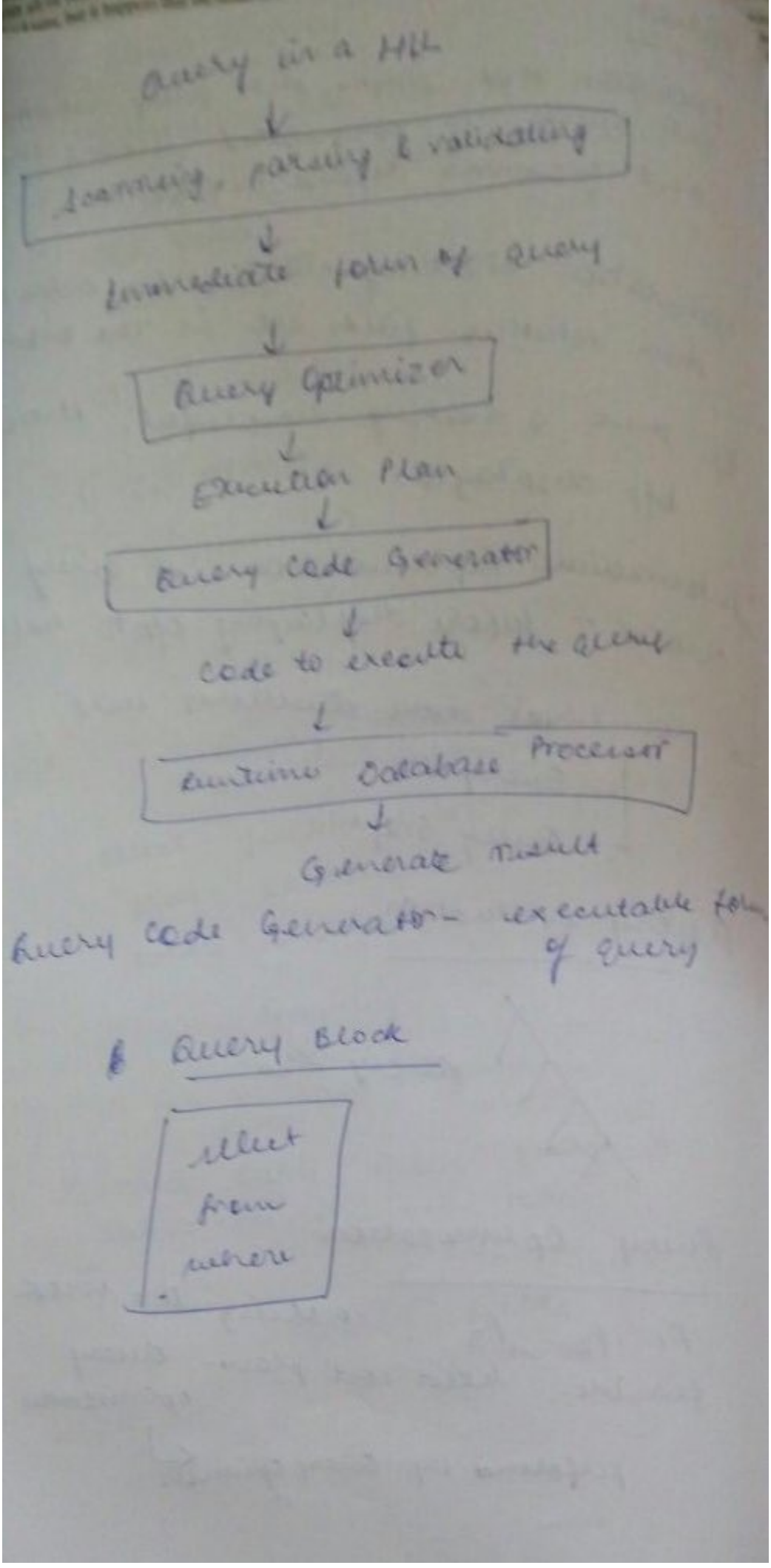


Query Tree.

Query Optimisation

P1 P2 P3 - choosing the most feasible. least cost plan - query optimisation

performed by query optimizer



Query code Generator – executable form of Query

Query Block