⑤ Heuristic Query Optimization :- i) Oracle calls this rule based optimization.

ii) A query can be represented as a tree data structure. Operations are at the interior nodes and data items (tables, columns) are at the leaves.

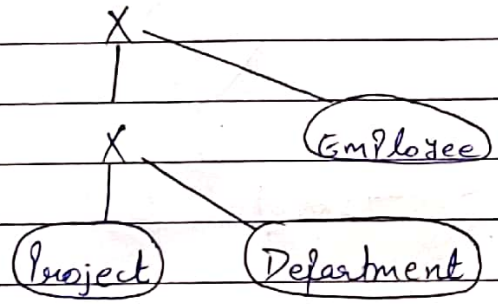
iii) The query is evaluated in a depth-first pattern.

iv) Let assume this example →

Select PNumber, DNum, LName From Project, Department, Employee where DNum = DNumber And MGR~~Emp~~SSN = ~~Emp~~SSN And PLocation = 'Stafford';

I $\pi_{PNumber, DNum, LName}$

$\sigma_{DNum = DNumber \wedge MGRSSN = SSN \wedge PLocation = 'Stafford'}$

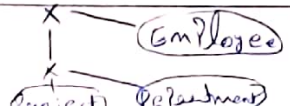


II $\pi_{PNumber, DNum, LName}$

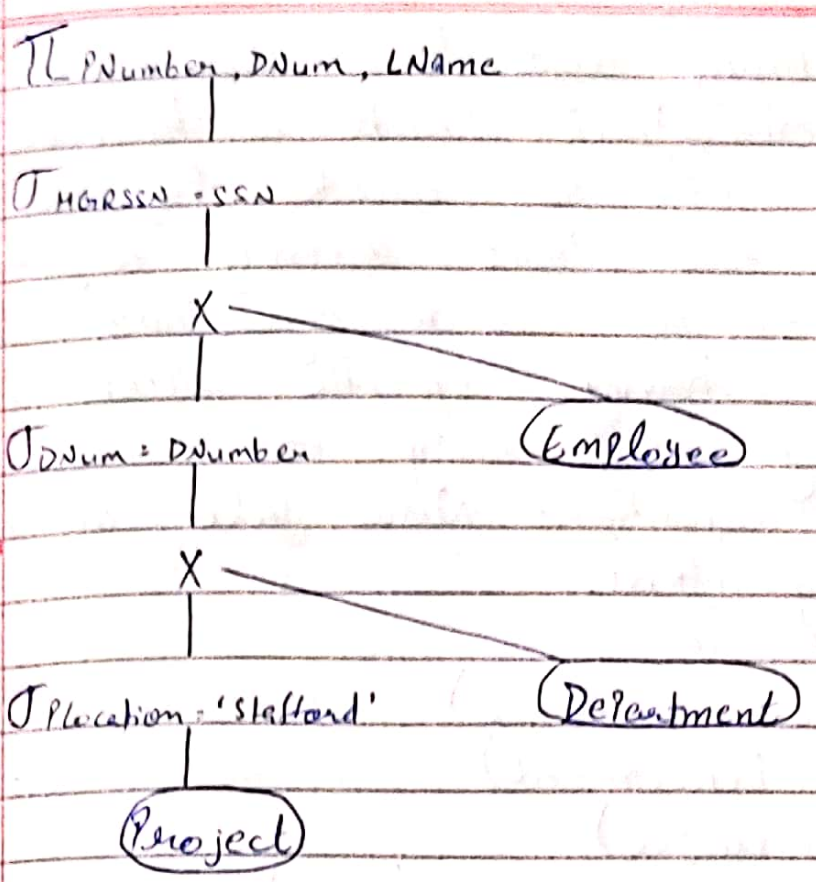
$\sigma_{DNum = DNumber}$

$\sigma_{MGRSSN = SSN}$

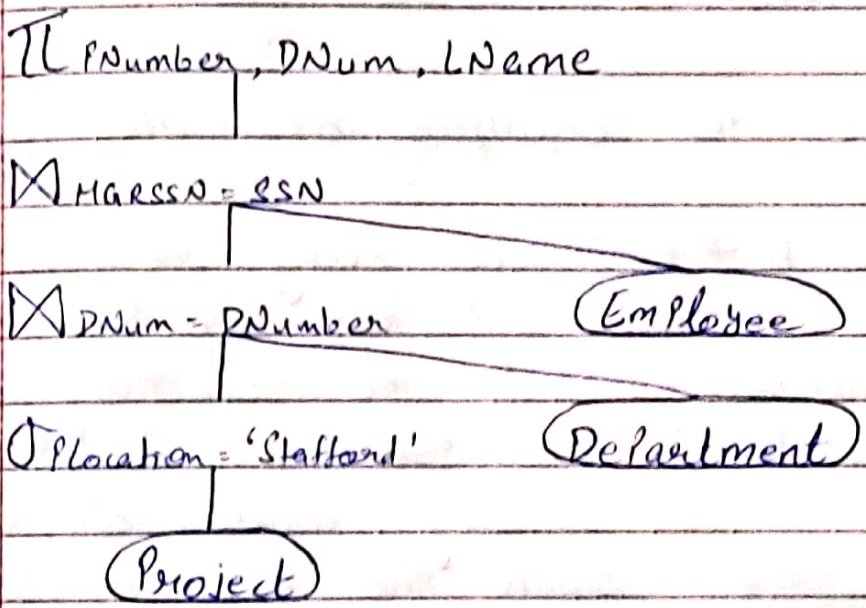
$\sigma_{PLocation = 'Stafford'}$



III



IV



Above is the example of Heuristic Query Optimization.