CORRELATED SUBQUERY

- A correlated Subquery is a query that used data from a table referenced in the outer query.
- Also known as synchronized subquery.
- A correlated subquery has no independent existence without the outer query
- Evaluated once for each row, hence more efficient.
- Find out the employees whose salary is higher than the average salary of their respective department -

```
SELECT empno, ename, sal, deptno FROM emp e
WHERE sal >
(SELECT avg(sal) FROM emp WHERE deptno = e.deptno);
```

TEMPORARY TABLE

- A temporary table is temporary in nature
- It is created for a particular session and destroyed by MySQL as soon as session ends. (Can also be dropped using DROP TABLE statement)
- Can be created using

```
CREATE TEMPORARY TABLE ...
```

- A temporary table can be created with the same name as an existing (permanent) table, though its not recommended because it can cease access to permanent table temporarily
- Temporary tables are not listed in the output of SHOW TABLES command.

COMPLEX VIEWS

- Views are of two types based on the underlying query –
  - Simple View
  - Complex Views
- In a complex view underlying query contains more than one base tables or a single table more that once by the use of Joins/Subqueries.
- A view containing group by, order by, distinct, group functions, columns defined by expressions etc. are also called as complex view.
- DML operations can not always be performed through a complex view.

MATERIALIZED VIEW / SNAPSHOT

- As per the C. J. Date, Materialized View is a deprecated term for a “Snapshot”
- Database object (view) that stores data temporarily by the underlying query
- A materialized view is different from a normal view : the query result is cached as a concrete ("materialized") table that may be updated from the original base tables from time to time.
- Not Supported by MySQL till current version 8.x