Sql Questions

1. What is Normalization? Explain its types?

**Normalization** is a **process of simplifying the relationship** among data elements in a record.

It replaces a collection of data in a record structure by another record design which is simpler and more predictable.

**Types of normalization are:**

1. **First Normal Form (1NF)**
2. **Second Normal Form (2NF)**
3. **Third Normal Form (3NF)**
4. **Boyce Codd Normal Form (BCNF)**
5. What is the difference between sub query and correlated query?

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| Sl No | Sub query | Correlated query |
| 1 | Sub query is query within query. The output of outer query is assigned to the column which is used in where condition of outer query | Correlated Query is nothing but the sub query whose output is depending on the inner query used in that query. |
| 2 | In sub query inner query executes first and then the outer query | In correlated query the outer query executes first and then the inner query |
| 3 | The outer query is always dependent on inner query. | Same in correlated also the outer query is always dependent on inner query. |
| 4 | Sub queries always uses operator like equal to, not equal to, in, not in. | Correlated Sub queries always uses operator like **Exist, Not Exist, IN, Not IN.** |
| 5 | Performance is fast compared to correlated query. | Performance is slow compared to sub query. |