**DATABASE LAB ASSIGNMENT#01**

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**SECTION: H**

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| **SUBQUERIES** | **JOINS** |
| * They are nested queries embedded whithin the where clause. | * Joins two or more table through a related field present in both tables. |
| * It is very rare for a subquery to be faster. | * Joins are faster than subqueries. |
| * The inner query’s output is the outer’s query input. | * Uses values of the columns from one or more tables to evaluate the output based on the condition. |
| * They are used as the filter condition for main query. | * Joins are used for merging data from more than one table. |
| * They are more sturctured, hence they are easier to read. | * Joins are comparatively complex hence difficult to read in some cases. |

**SUBQUERIES:**

1. **ADVANTAGES:**

* Easier to understand.
* A complex query can be broken down into series of logical setps.
* One query’s result can be used as other query’s input.
* It can easily replace complex joins and unions.

1. **DISADVANTAGES:**

* It extracts all the data fro every query and then filters it.
* The database server may need to perform additional steps.
* We cannot modify and select the same table within a subquery.
* They take longer to execute.

**JOINS:**

1. **ADVANTAGES:**

* Joins are used for better maintenance.
* By using join we can maximize the placement of the calulation burden on database.
* The execution time of joins are faster.
* We can fetch exactly the data from any number of tables with just one query.
* It also retrieves data at a faster rate.

1. **DISADVANTAGES:**

* Joins are not easy to read.
* Due to its many types, it can become confusing for the user as to which join should be used and where.
* As the table and caclculations increases it requires more time and becomes very complex.
* If the query is very complex it can become a maintenance issue.