



Daffodil
International
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Chapter 4- Derived Data

Course Code: CIS 322

Module Title: Advanced Database

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What is Derived Data?

- A column whose value can be found by examining the values of other columns

Overheads of Derived Data

- Additional storage of extra attribute
- New calculation every time a value in the source field is changed
- Possibility of data becoming inconsistent

Aggregate Functions that can be used to Derive Data

- Count – returns number of values in a column
- Sum – returns the sum total of values of a column
- Avg – returns the mean average of values in column
- Min – returns the lowest value in a column
- Max – returns the highest value in a column

Example of use of an advanced Aggregate Function

```
Select branchID, Count(staff_id)
From workers
Where branchType = 'Main'
Group by branchID
Having Count (staff_id) > 1
Order by branchID
```

- This counts the number of members of staff in main branches where there are more than 1 staff. It groups them by the branchID.

Use of Group by & Having Clauses

Group by Clause

This GROUP BY clause is used with an aggregate function and groups the results by some attribute

Having Clause

The HAVING clause is used in combination with the GROUP BY clause to restrict the groups of returned rows to only those whose the condition is TRUE.