SQL Tutorial

IntelliPaat

SQL

Agenda

Order By

Union Operator

TOP

Union All Operator

Group By

Except Operator

Having Clause

Intersect Operator
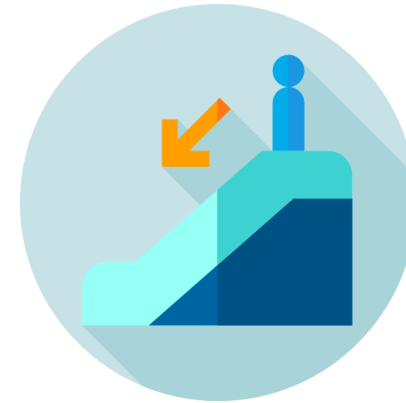
e_id	e_name	e_salary	e_age	e_gender	e_dept
1	Sam	95000	45	Male	Operations
2	Bob	80000	21	Male	Support
3	Anne	125000	25	Female	Analytics
4	Julia	73000	30	Female	Analytics
5	Matt	159000	33	Male	Sales
6	Jeff	112000	27	Male	Operations

Order By

ORDER BY is used to sort the data in ascending or descending order.

Ascending

Descending

Order By: Syntax

Let's sort the records using the **Order By** clause

SELECT column_list FROM table_name ORDER BY col1, col2,………..ASC | DSC

TOP Clause

TOP clause is used to fetch the **top N** records.

e_id	e_name	e_salary	e_age	e_gender	e_dept
1	Sam	95000	45	Male	Operations
2	Bob	80000	21	Male	Support
3	Anne	125000	25	Female	Analytics
4	Julia	73000	30	Female	Analytics
5	Matt	159000	33	Male	Sales
6	Jeff	112000	27	Male	Operations

TOP Clause: Syntax

Let's get the **top N** records

SELECT TOP **x** column_list FROM table_name;

Group By

Group By is used to get an aggregate result with respect to a group.
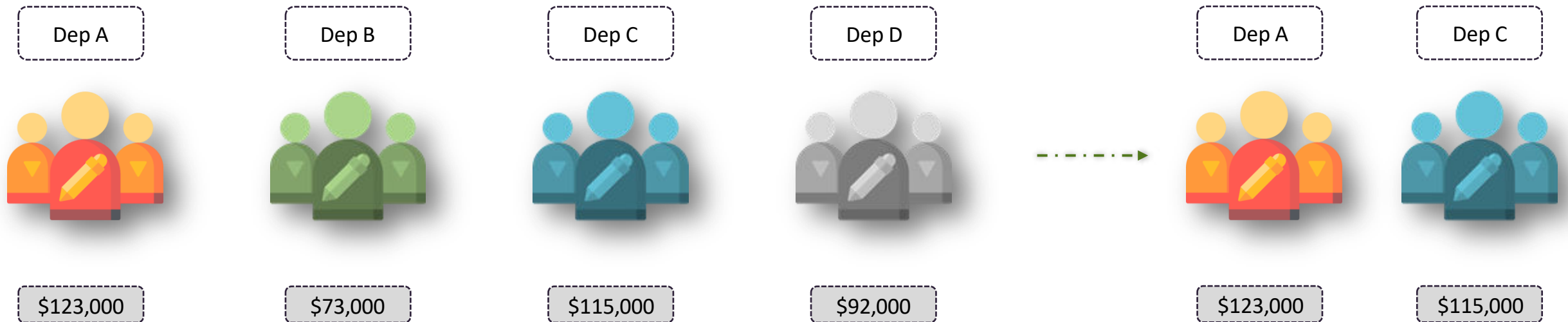

Male

Female

Salary

$83,000

$90,000

Group By: Syntax

Let's group the data!

SELECT column_list
FROM table_name
WHERE condition
GROUP BY colname(s)
ORDER BY colname(s)

Having Clause

Having clause is used in combination with Group By to impose conditions on groups.

Dep A	Dep B	Dep C	Dep D	Dep A	Dep C
$123,000	$73,000	$115,000	$92,000	$123,000	$115,000

Having Clause: Syntax

Let's impose conditions on groups with the having clause

SELECT *column_name(s)*
FROM *table_name*
WHERE *condition*
GROUP BY *column_name(s)*
HAVING *condition*
ORDER BY *column_name(s);*
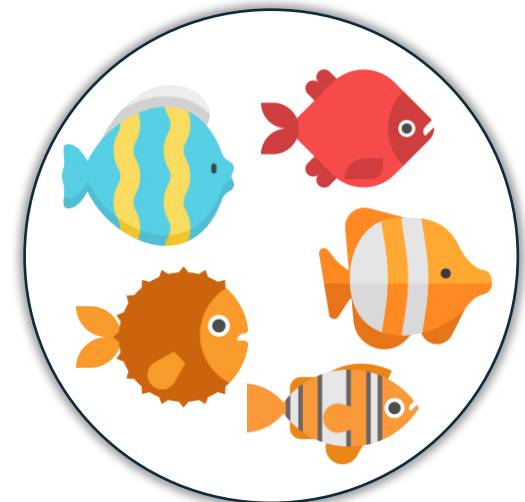
Union Operator

Union operator is used to combine the result set of two or more SELECT statements.
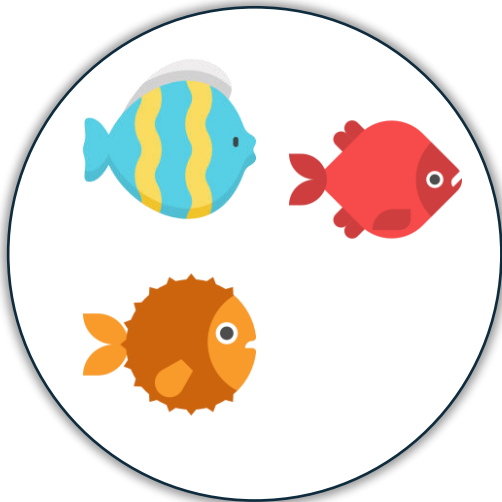
A
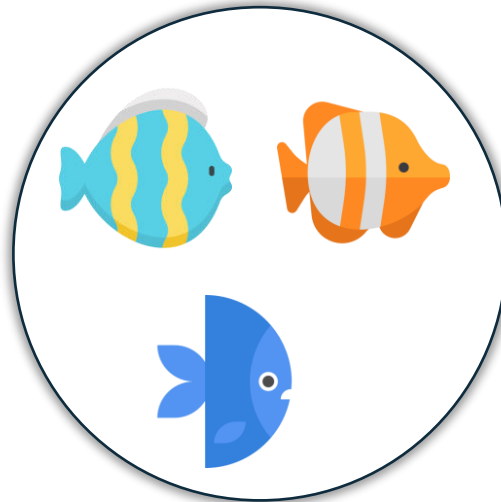
B

A ∪ B

Union Operator: Syntax

Using the **Union** Operator

SELECT column_list FROM table1
Union
SELECT column_list FROM table2

Union Operator

s_id	s_name	s_marks
1	Sam	45
2	Bob	87
3	Anne	73
4	Julia	92

Student_Details1

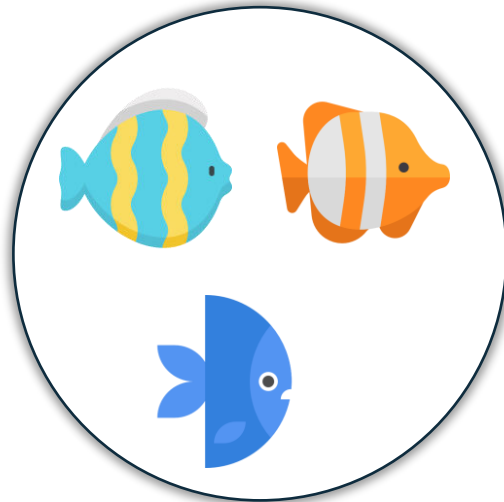| s_id	s_name	s_marks
3	Anne	73
4	Julia	92
5	Matt	65

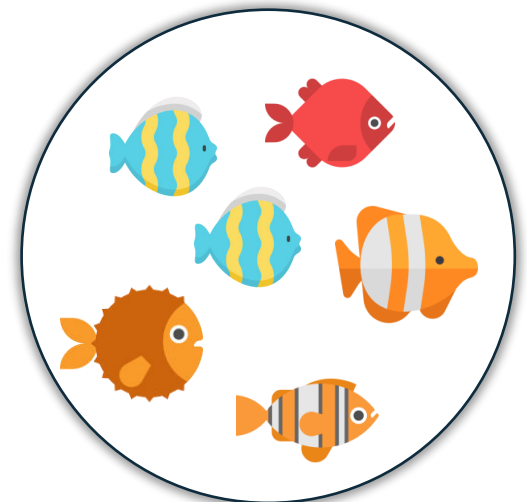Student_Details2

Union All Operator

Union All operator gives all rows from both tables including the duplicates.
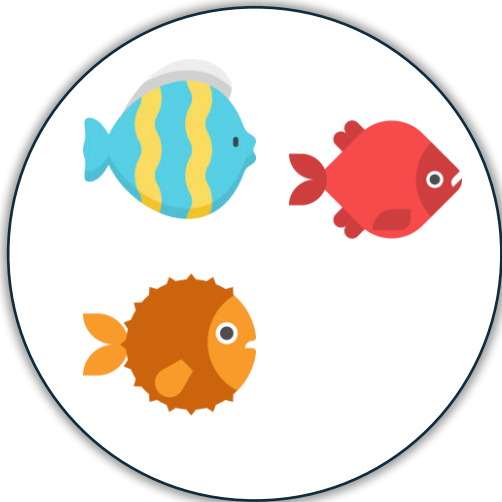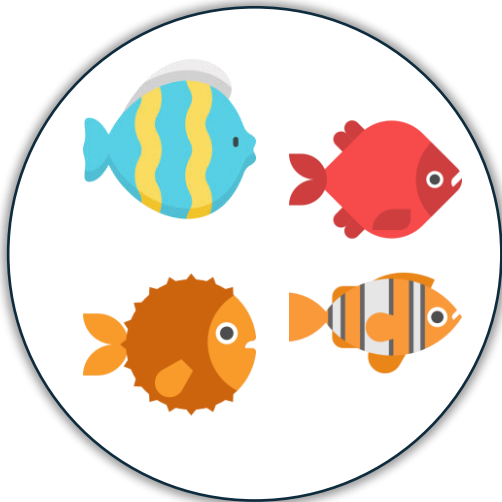

A

B

A union all B

Except Operator

Except Operator combines two select statements and returns unique records from the left query which are not part of the right query.

A
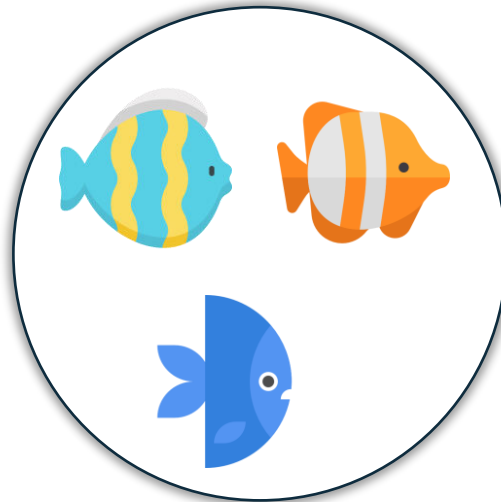
B
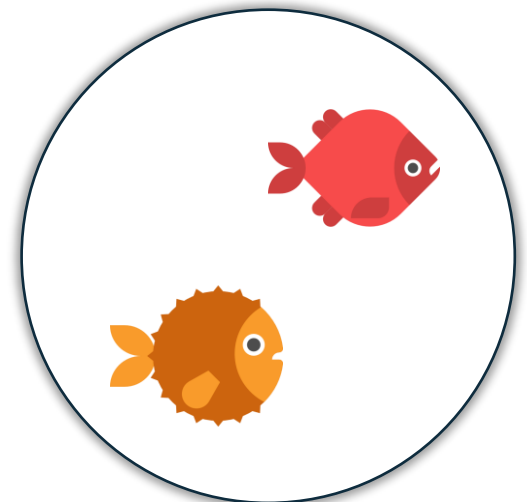
A - B

Except Operator: Syntax

Using the
Except
Operator

```
SELECT column_list FROM table1
EXCEPT
SELECT column_list FROM table2
```

Except Operator

s_id	s_name	s_marks
1	Sam	45
2	Bob	87
3	Anne	73
4	Julia	92

s_id	s_name	s_marks
3	Anne	73
4	Julia	92
5	Matt	65

Student_Details1

Student_Details2

Intersect Operator

Intersect Operator helps to combine two select statements and returns the records which are common to both the select statements.

Table A   Table B
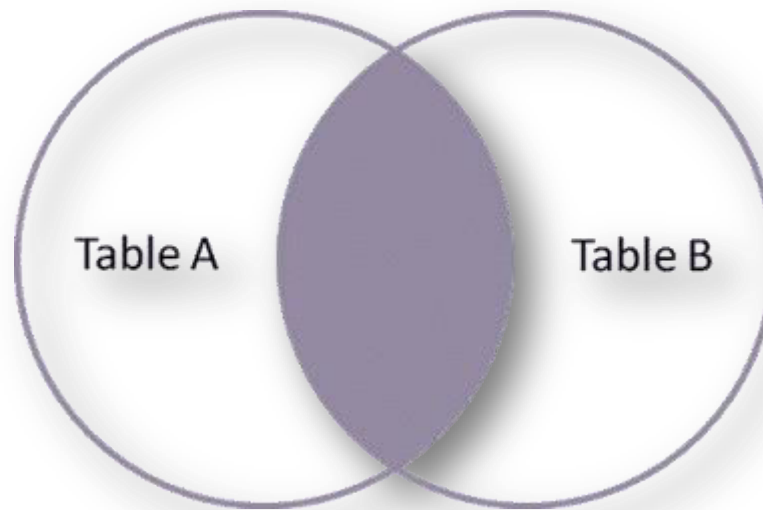
A ∩ B

Intersect Operator: Syntax

Using the **Intersect** Operator

```
SELECT column_list FROM table1
INTERSECT
SELECT column_list FROM table2
```

Intersect Operator

s_id	s_name	s_marks
1	Sam	45
2	Bob	87
3	Anne	73
4	Julia	92

Student_Details1

s_id	s_name	s_marks
3	Anne	73
4	Julia	92
5	Matt	65

Student_Details2

Quiz

Quiz

What is the purpose of 'Order By' clause?

A   Sorting your result set using column data

B   Aggregation of fields

C   Sorting your result set using row data

D   None of these

Solution

What is the purpose of 'Order By' clause?

A	Sorting your result set using column data
B	Aggregation of fields
C	Sorting your result set using row data
D	None of these

Quiz

What is the purpose of 'Group By' clause?

A	Group data by column names
B	Group data by row values
C	Group data by column & row values
D	None of these

Solution

What is the purpose of 'Group By' clause?

A	Group data by column names
B	Group data by row values
C	Group data by column & row values
D	None of these

Quiz

Which of these is used with aggregate functions?

A Select

B Where

C Group By

D None of these

Solution

Which of these is used with aggregate functions?

A	Select
B	Where
C	Group By
D	None of these

Quiz

Which of these is the correct syntax for union operator?

A

SELECT column_name(s) FROM table_name1 UNION table_name2

B

SELECT column_name(s) FROM table_name1
UNION
SELECT column_name(s) FROM table_name2

C

UNION SELECT column_name(s) FROM table_name1
SELECT column_name(s) FROM table_name2

D

SELECT FROM table_name1 AND table_name2

Solution

Which of these is the correct syntax for union operator?

A   SELECT column_name(s) FROM table_name1 UNION table_name2

B   SELECT column_name(s) FROM table_name1
UNION
SELECT column_name(s) FROM table_name2

C   UNION SELECT column_name(s) FROM table_name1
SELECT column_name(s) FROM table_name2

D   SELECT FROM table_name1 AND table_name2

Thank You